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A grammar of Sandawe

A Khoisan language of Tanzania

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Chapter 1

Introduction

The introduction is structured as follows: section 1.1 gives a short overview of the region and the population of *Usandawe*, the primary area where Sandawe is spoken. Section 1.2 briefly introduces the language by describing the classification, its position among other, unrelated languages in the region, and the sociolinguistic situation in Usandawe. Section 1.3 provides the background to the study by describing previous studies and the structure and methodology of the research that was carried out. Finally, section 1.4 is a reading guide to the book. It presents two text samples in Sandawe that display the basic characteristics of the language with references to the sections, orthography and annotation conventions, followed by a gloss list and list of morphemes.

1.1. Usandawe, the area and its population

Sandawe (**sàndawé-kĩŋ**) is spoken in northern-central Tanzania, in an area situated to the north-west of Dodoma, to the south-west of Kondoa, and to the south-east of Singida (see the map below).¹ The area is part of Kondoa district and encompasses several rural wards. It has no official, administrative status as a whole. The Swahili toponym *Usandawe* is commonly used by the Sandawe themselves and others in order to refer to the area where the Sandawe live and where the language is spoken primarily.

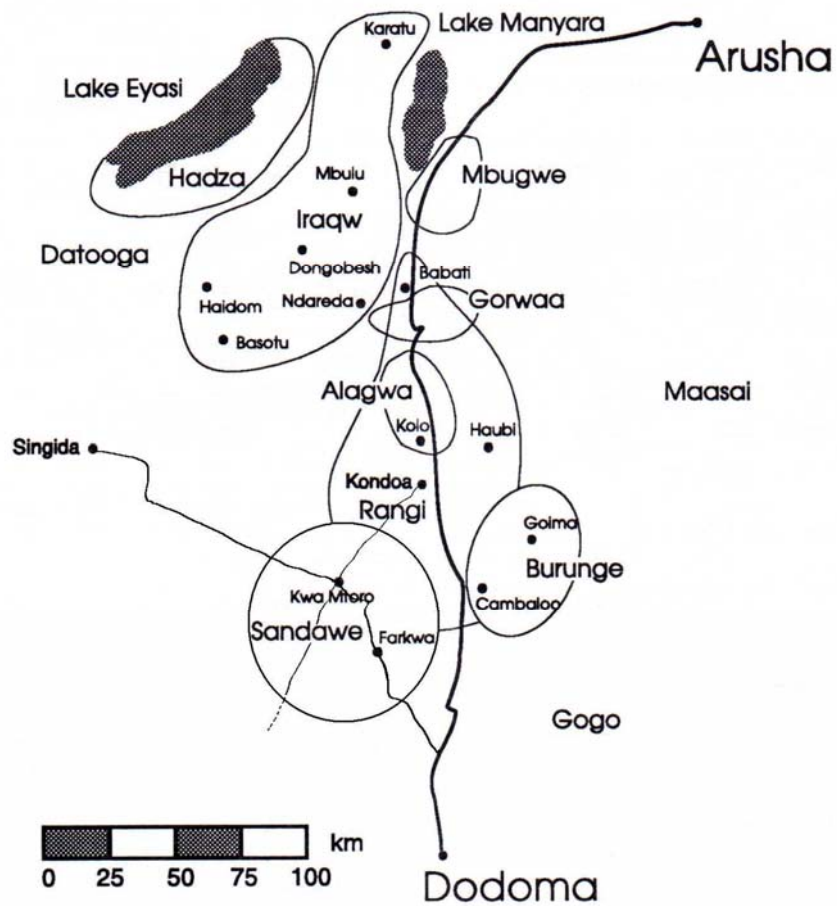
Nowadays, most of the population live in settlements along the main roads, such as Farkwa, Poro Banguma, Kwa Mtoro, Magambua, Ovada, Gungi, Moto, Gumbu, Sanzawa. The size of the settlements ranges from a few hundred up to four thousand people (source: the United Republic of Tanzania 2002 Population and Housing Census). Large parts of the northern half of Usandawe are almost uninhabited because of their infection with tse tse flies and the centralization of people in designated villages during the villagization programme in the 1970s (see also Newman 1978).

There are no accurate up-to-date figures on the total population of Usandawe, nor on the number of Sandawe speakers. Previous publications show considerable variation in the total number of speakers, which cannot be fully accounted for by natural growth: from 20 000 (Tucker 1977) to 30 000 (1957 census) to 40 000 in 2000 according to the online Ethnologue. The 2002 census presents the number of

¹ The geographical center of the area (the village Kwa Mtoro) is located at 5°13'25"S 35°25'30"E.

inhabitants for each village in Tanzania, out of which we calculated an estimated total of 60 000 people in Usandawe.²

Map of northern-central Tanzania, showing Sandawe and some neighbouring languages. Adapted from Kießling (1994:11).



² The estimation was made by adding up the number of inhabitants of all villages in the wards of Kondo district that we could identify as being part of Usandawe.

The size of Usandawe is approximately 65 by 70 kilometres. Two major, unpaved roads run through the area: one from the south-east to the west (a secondary route between Dodoma and Singida), the other from the south to the north (a secondary route between Dodoma and Kondoa). The two roads cross each other in the village Kwa Mtoro, the geographic center of Usandawe.

Usandawe consists of plains in its western and northern parts at approximately 900 to 1100 meters above sea level. The southern and eastern parts and the northern border are hilly (Sandawe Hills and Songa Hills, respectively), with some mountain tops up to 1700 meters above sea level. The area is part of a closed drainage area ('Abflussloses Gebiet') and has no major permanent water courses, except for Bubu River in the south-east.

The climate is semi-arid. Usually there is some rain at the end of the year and a rainy season in the first quarter of the year, but rainfall tends to be unpredictable and local. (Drinking) water is scarce most of the time and is obtained from a few wells or from holes that are dug in dry creeks.

The area is among the poorest regions of Tanzania. Infrastructure is poor: there is no running water and no electricity in the area, except for a few shops and households that own generators. There are no telephone land lines, but the first cell phone towers have been placed in 2005.

Most people are self-sufficient and depend on a pragmatic mix of small-scale agriculturalism and cattle-keeping, collecting honey and fruits, and hunting. Common crops are various kinds of millet (|'wǎŋ), such as **lálǎŋgáá** 'white millet', **phémhá** 'red millet', and **!ékòó** 'bulrush millet'; and maize (ŋ|ínín or ?ááná). Nowadays, some people cultivate crops for trade, e.g. sunflower and sesame, but unpredictable rainfall makes this an uncertain occupation. A few are engaged in cattle trade, but large stocks are rare.

Although the Sandawe have often been referred to as hunter-gatherers, we have found no evidence of people that depend mainly on hunting and gathering. Ten Raa (1970) describes part of the ("aboriginal") Sandawe population as hunter-gatherers and Ten Raa (1986a;b) focus on the relatively recent acquisition of cattle when the Alagwa arrived in Usandawe. On the other hand, Newman (1991/1992) provides a reinterpretation of the "hunting and gathering past" of the Sandawe and sketches a scenario of gradual transition from hunting and gathering to cultivation and animal husbandry which started earlier, probably with "the arrival in this part of Tanzania of the first Southern Cushites".

1.2. Sandawe, the language

Sandawe (**sàndàwé-kìʔŋ**; Ethnologue language code [sad]) is spoken by approximately 60 000 people. The primary area where the language is spoken is Usandawe, but there are small communities of Sandawe speakers in Dodoma, Arusha, and Dar es Salaam. Exact data on the number of speakers are not available,

but the estimated total population of Usandawe of 60 000 (see above) serves as a basis. The actual total number of speakers of Sandawe may be lower or higher because on the one hand, the current estimation includes people from other ethnic groups in the region that do not speak Sandawe (e.g. Datooga, Nyaturu, Gogo, and others in the larger settlements, e.g. Farkwa, Kwa Mtoro). On the other hand, Sandawe speakers outside Usandawe are not taken into account.³

Sandawe is considered to be part of the Khoisan language family, together with the southern-African Khoisan languages and the other Tanzanian click language Hadza (Greenberg 1963). However, the existence of Khoisan as one genealogical unit is “still under debate” (Güldemann and Elderkin 2010:15), as there is little linguistic evidence to group the quite distinct languages and families together, especially for the non-Khoe Khoisan languages. The classification of Sandawe within the phylum is therefore difficult. Sands (1998) posits Sandawe as an isolate language in a primary branch. Güldemann and Elderkin provide grammatical and lexical data in order to show that Sandawe “stands a good chance to be related to Khoe-Kwadi in southern Africa” (Güldemann and Elderkin 2010:16).

Dempwolff (1916) describes some dialectal variation for Sandawe in two groups: **téla** (lit. ‘genuine’) and Bisa. Eaton et al. (2007) states two main varieties, western and eastern. Several of our consultants (from the central and western parts of Usandawe) confirmed the variation, generally stressing the differences with the Farkwa (eastern) variation (“they speak slower”; “they use **ʔáána** for maize instead of **ŋííní**”). However, in our research the Sandawe did not use **téla** and “Bisa” to refer to dialectal varieties. Generally, people refer to Mangastaa (off the major roads, to the south-east of Kwa Mtoro) as the place where *Sandawe ya asili* (‘original Sandawe’) is spoken.

In the northern-central Tanzanian region, Sandawe is surrounded by languages from three different language families. Several Bantu languages are spoken in the areas around Usandawe: Rangi (F.30) to the north-east, Gogo (G.10) to the south, and Rimi/Nyaturu (F.30) to the west. Swahili is spoken throughout the region, as the national language of Tanzania and lingua franca. Moreover, two West-Rift Southern Cushitic languages are spoken close to the Sandawe area: Alagwa to the north and Burunge to the east. Two Nilotic languages are spoken by nomadic groups in the region: Datooga and Maasai.

The extent to which Sandawe has been in contact with other languages will not be investigated in detail in the current study. However, the presence of borrowings from other languages is evident, such as Southern Cushitic cattle terminology (cf. Ten Raa 1986a), Gogo hunting terminology (e.g. different types of arrows), and Swahili technical terms (see section 3.2). There are no indications for borrowings from the Nilotic languages Datooga and Maasai. Further research on (recent) language contact could focus on Nyaturu (many of the eldest Sandawe speakers in

³ For both non-Sandawe speakers in Usandawe and Sandawe speakers outside Usandawe, no data are available, but we do not expect them to surpass a few thousand.

Kurio, Kwa Mtoro and villages further to the west had Nyaturu fathers, who settled in Usandawe during major droughts; some clans are said to be of Nyaturu origin, e.g. **wàpùrú**), Gogo (many Sandawe men in the south of Usandawe have married Gogo women), and Southern Cushitic (there is a clan of “rainmakers” near Kurio, named **?àlágwá**; see also Ten Raa 1986b). At present, Swahili, as the second language of most Sandawe speakers, is evidently an important factor in language contact.

Sandawe is the primary language in Usandawe in every-day communication. However, Swahili, as the official, national language, is the language of communication in primary schools and in administrative institutions. English is only spoken by a few. Many Sandawe have low esteem of their language and culture. Moreover, Sandawe language and culture have little prestige outside Usandawe. Because of the presence of clicks in the language, Sandawe speakers are easily recognized outside the area. During our research, we observed that many native speakers, among each other, change to their second language, Swahili, once they are in public space outside Usandawe.

1.3. Background to the study

The current study is based on empirical research on Sandawe, with emphasis on the description of the language, and the presentation of various oral texts that were collected during fieldwork. The description in the sections of the book follows the form-to-function principle as strictly as possible: (phonological) forms and variations are presented first, then a functional and semantic analysis follows.

There are numerous publications on aspects of Sandawe language and culture. For an extensive bibliography, see the online EBALL Sandawe Bibliography by Maho and Sands. Dempwolff (1916) is a major early work on linguistic and ethnographic aspects of Sandawe. Van de Kimmenade (1954) is a micro-fiche publication which contains a grammatical sketch and vocabulary. Eric ten Raa has published more than twenty articles on ethnographic aspects of the Sandawe in the 1960s, 1970s, and 1980s which contain much lexical information. Research by Edward Elderkin focuses primarily on the (tonal) phonology of Sandawe, e.g. Elderkin (1989) and (1992). Moreover, he composed an (unpublished) Sandawe wordlist, which has a very accurate phonetic transcription. Another wordlist has been published by Ryohei Kagaya (1993). Kießling (2010) gives a description of verbal plurality in Sandawe. Most recently, much linguistic research has been carried out by Helen Eaton, for example on information structure marking in Sandawe (2002; 2010b). In 2010, a grammar of Sandawe was published online by Eaton. Unfortunately, the core chapters of the current study were in a final version when Eaton’s publication came out. Therefore, no comparisons to her analysis have been made. The current work provides, among others, an overview of different types of nominal and verbal derivation in Sandawe, with an extensive description of their semantics and syntax. Further, the description pays specific attention to two interesting characteristics of

Sandawe: plurality marking on verbs and the various types of clitics, notably subject/modality markers.

The data for the current study have been collected during three fieldwork trips to Usandawe: from February to August 2003, from October 2004 to February 2005, and in May and June 2006, which adds up to approximately 900 hours of data collection. Common methodology for linguistic fieldwork research was used, which is based on structured interviews and the collection (recording, translation, analysis) of oral texts with selected consultants. All data were checked as much as possible with other consultants and native speakers.

The research was carried out with three main informants, who were mostly consulted separately during sessions at the Roman Catholic Mission in Kurio, a few kilometres to the south of Kwa Mtoro.

- Joseph Majua **thàndóó** was born in Kurio (central Usandawe) in 1931, from a Nyaturu father and a Sandawe mother. Sandawe is his mother tongue, Swahili is his second language, he does not speak Nyaturu. He is a retired teacher. Joseph Majua has attempted to write Sandawe (both for himself and in preparation for interviews for this study), but does not distinguish between the various velaric and glottalic consonants in writing. He provided most of the oral text material for this study.
- Anastasia Kanuti **k'ats'áwá** was born in Kurio (central Usandawe) in 1939. Her parents were both Sandawe. Sandawe is her mother tongue, Swahili is her second language. Anastasia Kanuti provided most of the vocabulary items during the first and second fieldwork trip.
- Placidi Nangile was born in Ovada (western Usandawe), in 1953, his parents were both Sandawe. Sandawe is his mother tongue, Swahili is his second language, and English is his third language. He moved to Kurio in 1996, and also lived in Kwa Mtoro and outside Usandawe. He is a teacher by profession. After some training during interview sessions, Placidi Nangile was able to write sentences and paradigms in Sandawe by using the orthography as used in this study, including tone marks.

Further data were collected by (ad-hoc) observation, for example with adolescents at the fields and the dam in Kurio, and during visits of families in the villages Kurio, Kwa Mtoro, Ovada, Farkwa, Sanzawa, and Pendo. The languages used in elicitation were Swahili (primarily) and Sandawe.

The data collection contains eight notebooks with several thousands of vocabulary items, both in isolation and in utterances, paradigms, etc. Approximately 1400 vocabulary items have been stored in a simple database (Shoobox). Further, there are approximately 4 hours of (mini-disc and tape) recordings of (animal) stories, procedural text, dialogues, and riddles, which were transcribed, analyzed and used as input for further data collection. A selection of these texts is presented in the appendix to this study. The transcriptions of ten oral texts have also been saved in digital text format.

1.4. Reading guide to the study

The following sections provide a reading guide to the study. First, basic characteristics of the language are presented on the basis of two short text samples, and with reference to the relevant sections in the book. In section 1.4.2 the orthography and annotation conventions are explained. Sections 1.4.3 and 1.4.4 provide a gloss list and a morpheme list, respectively.

1.4.1. Sandawe text samples and language characteristics

The two text samples below are presented in order to outline the main characteristics of Sandawe, and to refer to the relevant sections of this study. The first sample is part of a transcribed recording with Joseph Majua, who narrated the story “Frog, where are you?” as based on a picture book by Mayer (2003). The second sample contains an utterance from the oral text “The name of Sanzawa”, as recorded with the same consultant.

The numbers below the text lines refer to the description and references below.

- The first sample starts with a verbal clause in the first line, which is introduced by a narrative conjunction **sàà**, a common way of linking clauses and utterances. Then the lexical subject **hèésù ñ||òònsù** ‘this child’ follows, a postpositional phrase **||hôn-tà-nà=sà** ‘into a cave’ and an (unmarked) main verb **sóóxì** (‘examine’). The subject is not marked on the verb but on the conjunction **sàà** (incorporated) and on the postpositional phrase (as a clitic); subject clitics can have various positions in the clause. The second line starts with the same narrative conjunction and a complementizer, followed by direct speech: a subject **!’òròrõñ** ‘frog’ and a verb **kóósúsù** ‘be around’. The following verbal clause is linked to the previous clause with a coordinating conjunction **nì** with a coordinating linker **-ñ**, and the narrative conjunction **sàà**. The third line is a question directed towards the ‘frog’, which is the first constituent. The question word (‘where?’) has a subject/modality clitic. The utterance ends with the verb stem **ñyé** ‘stay’.

sàà	hèésù	ñ òò-n-sù	 hôn-tà-nà=sà	sóóxì	
18	6	4 1	3 2 1	5 5 7	8 2
CNJ2.3fSG	DEM1.f	child-DEF-f	cave-in-DIR=3fSG	examine	

And this girl examines into a cave

sàà	ká?á	đimè	!’òròrõñ	kóó-sú-sù	nì-ñ	sàà	há!à
18		1		9	18 16 18		8 1
CNJ2.3fSG	that	maybe	frog	be_present:SG-BE-3fSG	CNJ-CL	CNJ2.3fSG	call

and she says: “Maybe Frog is here”, and she calls:

!’òròròm-pò hákw=ì ʔiyé
 20 7 11
 frog-2SG where?=2SG stay:SG
 “Frog, where are you?”.

- The first sentence of the second sample has a subordinate clause and a main clause. The first word, **ŋ|íŋ** ‘meat’, which is the object of the subordinate clause, has extra prominence (gloss ATT): it is in first position before the subordinate conjunction, the vowel is lengthened, and it has rising pitch at the end. The subordinate clause is marked by an initial subordinate conjunction, **híy-à**, and a subordinate marker, **=ìŋ**, at the end. The subordinate clause has two verbs (‘skin’, ‘finish’) that are linked by the verb linker **-ŋ** on the first verb. The main clause is introduced by the conjunction **pàà**. In the second line the object, **híngéxêŋ ŋ|íŋ** ‘the rest of the meat’, is in focus, similar to ‘meat’ in the first line. The constituent is placed before the conjunction.

ŋ|íŋ híy-à ||’é-?éwá-á-ŋ !’òókhá=ìŋ pàà ŋ!áthá-?áwá-á
 10 19 8 12 13 17 8 19 18 8 12 13
 meat.ATT SUB:CNJ-3 skin-PL1-3O-VL finish=SUB CNJ2.3 dice-PL1-3O
 When he had finished skinning the meat, he cut it into small strips.

híngé-xê-ŋ ŋ|íŋ pàà dzàdzàs-ímé-é
 3 4 18 14 15 13
 other-COLL-DEF meat.ATT CNJ2.3 roast.FACT-IT-3O
 The rest of the meat he roasted.

Sandawe has a rich phonology which contains sets of pulmonic, glottalic, and velaric consonants (clicks) (1), voiced and voiceless vowels (2), and tone; see chapter Chapter 2 on phonology.

The domain of nouns and noun phrases (chapter Chapter 3) is characterized by a two-gender system (section 3.2) and the absence of regular number marking (section 3.3). Nominal derivation is discussed in sections 3.4.1 to 3.4.5. Derived nouns and definite nouns (e.g. ‘this child’, ‘the rest of the meat’ (3); section 3.5) show overt gender and number marking, which is often not marked in indefinite nouns. Noun phrases generally have a noun-modifier order, but pragmatically marked modifiers precede the noun (e.g. the demonstrative precedes ‘girl’ (4); section 3.6.1). Postpositional phrases are characterized by one or more postpositional suffixes at the end of the phrase (e.g. ‘into the cave’ (5); section 3.6.3).

Sandawe has three sets of pronominal forms that occur freely: free personal pronouns, demonstratives (6), and the (locational) deictic elements **né-** and **ná-** (sections 4.1 to 4.3). Bound pronominal forms range from subject markers in the form of subject/modality clitics (7, section 5.1), forms incorporated in negation markers and conjunctions (sections 5.3 and 7.2/7.4) to verbal object markers (section

6.3). Nearly all pronominal forms are formally based on two basic sets, as discussed in section 4.4.

Chapter Chapter 5 discusses five groups of clitics: subject/modality markers, negation markers, mediative markers, the general question marker, and the exclamatory marker. Sandawe subject/modality clitics (7) are remarkable, because of their variable position in the clause (section 5.2), e.g. on postpositional phrases ('into the cave') and on question words ('where?'). Section 5.7 treats the structure of the clitic complex, a combination of two or more clitics that usually centres around the subject/modality clitic.

In the verbal domain (chapter Chapter 6), a distinction can be made between regular verbs (e.g. 'examine', 'call', 'finish' (8)), and special verbs (e.g. 'be present' (9); section 6.7). Regular verb roots form the basis of verbal derivation which results in extended verb stems (section 6.2), like factitive (14), iterative (15), causative, reciprocal, and middle stems. Verbal direct object marking (e.g. the third person object suffix $-\acute{e}$ (13)) is discussed in section 6.3. When oblique objects are marked verbally, a verbal case marker is introduced which is attached to the verb root or extended stem, after the (optional) direct object suffix (section 6.5). The oblique object pronoun is formally identical to the direct object pronoun. There are three verbal case markers: benefactive, comitative, and applicative.

Plurality marking on the verb (section 6.4) shows a complex interplay between participant plurality and plurality of action. In Sandawe, non-human nouns (e.g. 'meat' (10)) and their coreferential subject and object markers (8) have no number marking, but a suppletive plural verb stem or a verb with a plural marker (e.g. 'skin', 'dice' (12)) can express plurality of participants. Intransitive plural verbs code plurality of the subject participants, transitive plural verbs code plurality of the object participants.

However, the same verbal plural markers can express plurality of action, as demonstrated in sections 6.4.a and 6.4.b. Moreover, plurality of action is explicitly expressed in reduplicated verb stems and iterative stems (sections 6.2.1 and 6.2.2, respectively).

Sandawe has various coordinating and subordinating elements in the form of clitics and conjunctions, see chapter Chapter 7. The linker $-\eta$ (section 7.1) is used as a coordinating linker on conjunctions ('and she ...' (16)) and as a verb linker in several constructions, for example 'finish skinning' (17). It is also used (as $-\acute{\eta}$) in enumerations. There are three types of coordinating conjunctions ((18); sections 7.2 to 7.4), which show a lot of overlap in function, but which differ with respect to the absence or (optional) presence of pronominal marking.

Subordinate clauses are characterized by an initial subordinating conjunction with obligatory pronominal subject marking, and a final subordinate marker in the form of a clitic ((19); section 7.5).

Interrogatives (chapter Chapter 8) are formed by question words (e.g. (20) ‘where?’) and/or question markers in the form of a clitic. In yes/no-questions, the interrogative may be marked by prosodic means only.

1.4.2. Orthography and annotation conventions

Sandawe has no official orthography. The SIL-team in Usandawe has developed an orthography which is based on Latin script, but the large consonant inventory of the language makes it difficult to provide an orthography that can be used without training. Thus, with the exception of those who are trained to use this orthography, the Sandawe are not able to read or write their native language.

The orthography which is used in this book has been developed during the research and aims at a consistent, phonemic transcription of Sandawe. In some cases however, it is near-phonetic, in order to stay close to the actual realization. The basis for the orthography is the International Phonetic Alphabet, with some adaptations.

Sandawe has five vowel qualities: **a**, **e**, **i**, **o**, and **u**. Phonemically long vowels are written by double characters, e.g. **méeé**. In rare cases, a vowel may be extra-long, for example the exclamatory marker which is lengthened according to the speaker’s liking; it is written =**yóóó** (section 5.6). The longer duration of vowels before a nasal coda consonant is automatic and not written (section 2.1). Voiceless vowels are transcribed as vowels with a subscript diacritic, e.g. **ɥ̥**. Voiceless vowels after a glottal stop are also represented in transcriptions, but they are realizations of the glottal stop release and have no phonemic status, e.g. **kúʔúɲà** (section 2.1). Note that the voiceless vowel **ɥ̥** may be realized as labialization of the previous consonant, e.g. **||’éesú’kwésí**. (< ||’ée–súkū–é–sí).

An overview of all consonants is given in section 2.2. The representation of the palatal approximant is **y**. Aspiration and labialization are written by separate (non-superscript) graphs. Note that aspirated consonants may be labialized, which results in trigraphs, e.g. **thw**. Affricates are represented by digraphs and trigraphs: **tsh**, **ts**, **dz**, **tʃ**, and **dʒ**. Glottalic consonants (ejectives) are characterized by ’: **k’**, **ts’**, and **tʃ’**. There are three click types, which are represented by | (dental), ! (alveolar) and || (lateral) in the orthography. The click accompaniments are represented by digraphs or diacritics: aspirated and nasal clicks have digraphs (e.g. **|h**, **||**), voicing and glottalization are represented by diacritics (e.g. **↓**, **|ʔ**).

Nasals in coda position are homorganic consonants and the actual realizations are represented in the orthography, e.g. **ʔimbô**, **ʔinthó**, **kóngóràʔà**. Before a glottal stop (in polymorphemic words), the realization of the nasal is a nasalized vowel, e.g. **|âʔàwá** (<|âŋ–ʔwá). When vowel-initial morphemes and clitics follow the nasal, an onset-filler **g** is inserted (section 2.3), which is written in transcriptions, e.g. **tsèèŋgàà**. (< tsèé–`ŋ–àà).

Tone is represented on each vowel, and, in some cases, on coda consonants **y** and **w**. The following graphs are used: ´ (high), ` (low), ˇ (rising contour), and ^ (falling

contour). On long vowels, level tones are written on both graphs, e.g. **méé**. The writing of contour tones on long vowels is split up over the two graphs, e.g. **tshàá**. In some cases, double contours occur on a single syllable, when a low or high (floating) tone is added to a contour tone e.g. **ŋ|íŋ, khòôŋ**.

Upstep and non-automatic downstep are pitch phenomena which are marked in transcriptions by **↑** and **↓**, respectively. Note however that automatic downdrift is not marked and that downstep (marking) is absent after a low tone. See section 2.4.4 for more detailed information.

All Sandawe transcriptions in this publication (from phonemes to text samples) are presented in bold, phonetic font (SIL Doulos IPA).⁴ Examples that consist of more than one morpheme or word are in principle presented with a morpheme break-up, an interlinear gloss line and a translation line. The morpheme break-up uses hyphens for affixes and equation marks for clitics.

1.4.3. Glossing conventions and gloss list

The glossing conventions below apply to all glossed text in this book. The Leipzig Glossing Rules form the basis for these conventions, but note the different use of the full stop (.) and colon (:).

- Glosses for content words generally have a single translation equivalent, preferably in one word. Two-word glosses for single content words are linked by an underscore mark, e.g. ‘get_up’.
- Glosses for function words, morphemes, and grammatical categories are generally provided in small caps, often in abbreviated form, see the gloss list. Exceptions are glosses for gender (‘f’ and ‘m’, see below), free personal pronouns (e.g. ‘I’, ‘he’) and three postpositional suffixes (‘area’, ‘in’, ‘sake’).
- Special glossing conventions apply to bound pronominal forms, which encode information on person and/or gender and/or number. This information is represented in glosses in the following format: ‘3fSG’. Only third person singular forms can encode feminine gender. Note however that some third person forms only encode person, and may be used in combination with singular and plural verb stems, hence the glosses ‘3’ and ‘3O’ (see sections 5.1 and 6.3, respectively). Free personal pronouns have a translation equivalent instead of a gloss, in order to distinguish them explicitly from bound forms and demonstratives.

⁴ Swahili loanwords and insertions are also represented in the same font. Swahili words which are incorporated in Sandawe and which comply to patterns of Sandawe phonology and tonology, are transcribed in the Sandawe orthography, e.g. **dége** ‘airplane’ (Sw. *ndege*), **pháámì-nà** ‘on the coast’ (Sw. *pwani*). Otherwise, they are considered insertions and transcribed in the Swahili orthography, e.g. **chupa** ‘bottle’, **kitabu** ‘book’.

- Glosses separated by a hyphen correspond to the lexical items and morphemes in the transcription, which are separated likewise, e.g. ‘eland-DEF’.
- Glosses that are preceded by an equation mark (=) correspond to clitics, which are similarly separated from their host in the transcription line, e.g. ‘=3’.
- A full stop (.) separates glosses for grammatical categories which cannot be separated segmentally or morphologically, e.g. downstep for possession (tone only), a conjunction which has an incorporated pronominal element (e.g. ‘CNJ2.3’), or a verbal object marker that is infixated in the root.
- A colon (:) is used for port-manteau morphemes and for grammatical categories that are not overtly marked, e.g. a second person singular optative subject clitic (‘2SG:OPT’), or suppletive singular/plural verb stems (‘run:SG’).

The lines below represent the typical form of a glossed example:

pàà hèwé tsùù-ŋ hǎŋgà=à-ŋ thâ
 CNJ2.3 he animal-DEF get_up=3-VL run:SG
 And this animal gets up and runs.

The list below gives an overview of symbols, glosses and abbreviations used in the book, with a description of the meaning and/or its function.

1, 2, 3	First, second, third person
3O	Third person object (verbal suffix)
↓	Downstep: 1. downstep in the phonological word 2. syntactic pitch marking, e.g. possessive construction (POSS), multi-verb construction (VV)
↑	Upstep (information structure marking)
AG	Agent (nominal suffix)
APPL	Applicative (verbal case marker)
area	Locative postposition (‘in the area of’, ‘near to’)
ATT	Prominence marker (‘attention’)
BE	Special verb marker
BEN	Benefactive (verbal case marker)
C	Consonant
CAUS1; CAUS 2	Causative 1; 2 (verbal extensions)
CL	Coordinating linker
CNJ	Coordinating conjunction
CNJ2	Narrative (coordinating) conjunction
COLL	Collective (nominal suffix)

COM	Comitative (verbal case marker)
CONF	Confirmative (mediative clitic)
DEF	Definite
DEI1; DEI2	Deictic element 1; 2 (near; remote)
DEM1; DEM2	Demonstrative 1; 2 (near; remote)
DIR	Directional postposition
EXCL	Exclamatory marker
f; (f.)	Feminine (gloss; translation)
FACT	Factitive (verbal extension)
HORT	Hortative (subject/modality clitic)
in	Locative postposition
IND	Indulgent (mediative clitic)
INF	Infinitive (deverbal, derivational suffix)
INSTR	Instrumental postposition ('with, by, using')
INT	Intensifier
INTJ	Interjection
IT	Iterative (verbal extension)
L	Linker (enumeration)
LOC	General locative postposition ('on')
m; (m.)	Masculine (gloss; translation)
MID1; MID2	Middle 1; 2 (verbal extension)
MIR	Mirative (mediative clitic)
N	Homorganic nasal
(n.)	Noun (translation)
NAR:INTJ	Narrative interjection
NEG1	Negative realis marker (clitic)
NEG2	Negation marker
NEG:OPT	Negative optative marker
NMN	Nominalization (deverbal, derivational suffix)
NMN2	Nominalization
NMN3	Nominalization
NMN:PAT	Nominalization: patient noun
NR	Non-realis (subject/modality clitic)
OBJ	Object
OPT	Optative (subject/modality clitic)
PL1	Verbal plurality marker (object plurality or action plurality)
PL2	Verbal plurality marker (subject/oblique object plurality or habitual aspect)
POSS	Possessive construction as marked by downstep
(POSS.)	Possessive construction (downstep not audible)
PP	Postposition(al phrase)
PPr	Personal pronoun
PRO	Pronoun
Q	General question marker (clitic)
QS	Question of state

REC	Reciprocal (verbal extension)
RED	Reduplicated verb stem
sake	Postposition ‘sake, reason’
SFOC	Subject focus
SG	Singular
SUB	Subordinate marker (clause-final clitic)
SUB:CNJ	Subordinating conjunction
SUBJ	Subject
subj/mod	Subject/modality marking
SV	Subject-Verb relation as marked by downstep
(SV.)	Subject-Verb relation (downstep not audible)
TOP	Topic marker
TOP2	Topic marker 2 (exact function unclear)
V	Vowel
V̥	Voiceless vowel
(v.)	Verb (translation)
VL	Verb linker
VV	Multi-verb construction as marked by downstep
(VV.)	Multi-verb construction (downstep not audible)
Y/NQ	Yes/no-question marker (mediative clitic)

1.4.4. Morpheme list

The following is a list of grammatical morphemes. Allomorphs (including phonologically conditioned forms) are provided in one line, but may be repeated in the list in order to simplify searches. Pronominal forms and other forms with pronominal marking are not included here, see section 4.4 for an overview of these forms.

-aa	SFOC	Subject focus marker (tone depending on preceding tone (pattern))
-é, -yé	m	Masculine (nominal marker)
=gá-, =g-, =gâ?à	CONF	Confirmative (mediative clitic)
=gé	MIR	Mirative (mediative clitic)
hí-	SUB:CNJ	Subordinating conjunction
háá̀	DEM2	Demonstrative 2 formative (remote)
hèé̀	DEM1	Demonstrative 1 formative (near)
-̀ímé, -̀mé,	IT	Iterative (verbal extension)
-́ímé-, -̀ùmé		
-́ímé-	IT	Iterative (verbal extension); used before -é (3O) and -ésú (3fSG)
=íŋ̣	SUB	Subordinate marker (clause-final clitic)
-ká	COM	Comitative (verbal case marker)

káʔá	that	Complementizer, introducing direct or indirect speech
=ké	IND	Indulgent (mediative clitic, exact distribution unclear)
-ki	TOP	Topic marker (tone depending on preceding tone)
-kí	REC	Reciprocal (verbal extension)
-kíʔŋ, -kíʔŋ		Derivational suffix (language names)
-kù	CAUS1	Causative 1 (verbal extension)
-kẁ, -x̀,	BEN	Benefactive (verbal case marker)
-k-wá-ŋkí	REC	Reciprocal (verbal extension)
-mèé	sake	Postposition ‘sake, reason’
-m-sé	PL-FACT	Plural factitive stem marker (<IT-FACT?)
=nà	DIR	Directional postposition
=ná	Q	General question marker (clitic)
ná-	DEI2	Deictic element 2 formative (remote)
né-	DEI1	Deictic element 1 formative (near)
=nè-, =n-, =nè	Y/NQ	Yes/no-question marker (mediative clitic)
nì	CNJ	Coordinating conjunction
-̀n-sò	DEF-PL	Definite plural (human or specific animate)
-̀n-sù	DEF-f	Definite feminine
-ŋ	CL	Coordinating linker
-ŋ	VL	Verb linker
-̀ŋ	DEF	Definite (masculine)
-̃ŋ	ATT	Prominence marker (‘attention’)
-́ŋ	L	Linker (enumeration)
-ŋkí	REC	Reciprocal (verbal extension)
-ó	NMN	Nominalization (deverbal, derivational suffix)
-sà	NMN3	? Nominalization (exact distribution unclear). Can be used with a following postposition: -sà-nà; -sà-mèé ‘in order to’, ‘with the intention of’.
-sé	FACT	Factitive (verbal extension)
-sê		Derivational suffix for nouns denoting places and place names (<BE-3?)
-sí-, -s-, -sú-	BE	Special verb marker
=síʔ, =sìʔ	TOP2	? Topic marker (form and exact function unclear)
-so	PL	Plural marker (nominal marker; humans)
-sù, -sú	f	Feminine (nominal marker)
-súkù, -súk-	CAUS2	Causative 1 (verbal extension)
-tà, -t-	in	Locative postposition
-tè	area	Locative postposition
-tò	NMN:PAT	? Nominalization (deverbal patient nouns, exact distribution and meaning unclear)

-ts'è	APPL	Applicative (verbal case marker)
=ts'é	NEG2	Negation marker (verbal marker)
-ts'í	NMN2	? Nominalization (exact distribution and meaning unclear)
-ts'í, -ts'ʳ	MID1	Middle 1 (verbal extension)
-ts'ᵐ, -ts'ʳ	MID2	Middle 2 (verbal extension)
-ts'ᵐ, -ts'ʳ	LOC	Locative postposition
-ùmé	IT	Iterative (verbal extension); used after labial stop or labialized consonant
-wà	PL2	Verbal plural marker: 1. Subject plurality 2. Oblique object plurality 3. Habitual marker
-wá, -ʔwá	PL1	Verbal plural marker: 1. Object plurality 2. Action plurality
-wáŋkí	REC	Reciprocal (verbal extension)
wétsháná(=yóóó)	NAR:INTJ (=EXCL)	Narrative interjection
-x̣	COLL	Collective marker (nominal suffix)
-x̣, -kẉ	BEN	Benefactive (verbal case marker)
-xè	QS	Question of state
-xê-ŋ	COLL-DEF	Definite collective marker
-ỵ	AG	Agent (nominal suffix)
-yé, -é	m	Masculine (nominal marker)
=yóóó	EXCL	Exclamatory marker
-ʔ	LOC	Locative marker/postposition
-ʔŋ, -ʔn-	INSTR	Instrumental postposition ('with, by, using')
-ʔôŋ	INF	Infinitive (deverbal, derivational suffix)
-ʔwá, -wá	PL1	Verbal plural marker: 1. Object plurality 2. Action plurality
-ʔwáŋkí	REC	Reciprocal (verbal extension)

Chapter 2

Phonology

The following sections present a description of the phonology of Sandawe. First, vowels and consonants are discussed in sections 2.1 and 2.2. Section 2.3 discusses the syllable structure of Sandawe, including labialization. Section 2.4 discusses tone.

2.1. Vowels

The Sandawe vowel system is based on five vowel qualities: **a**, **e**, **i**, **o**, and **u**. In table 1, the vowel phonemes of Sandawe are shown. A distinction is made between short and long oral vowels, and voiceless vowels.

Table 1: Sandawe vowel phonemes

	<i>vowel qualities</i>				
<i>short (oral)</i>	i	e	a	o	u
<i>long (oral)</i>	ii	ee	aa	oo	uu
<i>voiceless</i>	ᵊ				ᵋ

The following near minimal pairs contrast the different vowel qualities.

i vs. **e**

 hímé	sing
 hèmé	sweep
ᵋ	bone
ᵋ!é	day

a vs. **e**

tàá	untie
téé	count
màkéntá	kite
mèkéntó	spoon for cooking (mash)

a vs. o

 'àá	follow
 'óó	to rain
sákhà	yoke, pole of a water-carrier
!áákhò	raised, open place

u vs. o

tû	come out
tó	finish
dùrù	slope; family/clan possessions
dóró	zebra

The (near) minimal pairs in the following examples show contrastive length for voiced vowels.

tsí	I
tshíí	gums; mushroom, sp.
ŋ!é	become light
ŋ!èé	laugh
!ákí	bifurcation
!áákí	fresh milk
 'ò	sleep
 'òó	carry loads, collect
!úpà	grass
!ùúbá	lung

Vowels that precede a nasal consonant in the coda may have a longer duration than short oral vowels in open syllables. This effect is clearest in monosyllables before pause. However, there is no opposition between long and short vowels before nasals.

 'ò	['ò]	to sleep
 'óó	['ó:]	to rain
 'òŋ	['ò:ŋ]	throat

Therefore, vowels before nasal coda consonants are treated as short oral vowels.

The phonological status of voiceless vowels is problematic, as discussed below. Voiceless vowels have only two vowel qualities: **i** and **u**.⁵ Since there is no voice in their pronunciation, distinguishing the two acoustically can be difficult. The decisive feature seems to be the absence or presence of lip-rounding.

In the majority of cases, voiceless vowels occur in word-final position.

kòŋkórì	cock
kàkúrù	calabash
búsì	kind of gazelle
tímù	swallow
híkʔ	go (SG)
tʃ'áràngù	dust
kàmákù	cheek
nárágù	hunger

Grammatical morphemes and clitics in word-final position may have a final voiceless vowel as well:

-kù, -súkù	CAUS1, CAUS2 (causative verbal suffix)
-tsʔ	MID2 (middle)
-sù	fSG (nominal gender marker)
=sì	1SG (realis subject clitic)
-sì	1SG:NR (non-realisation subject clitic)
=sù	3fSG:NR (non-realisation subject clitic)

All word-final voiceless vowels have a low tone. The tone of voiceless vowels cannot be heard when lexemes are used in isolation, but it surfaces when suffixes or clitics are added. The vowel is realized as a voiced vowel with a low tone in these cases, which is illustrated below.

híkʔ=sà [híkʔsà]

go:SG=3fSG
She went

kàkúrù=ná síyé=nè=ì [kàkúrùná síyé=ì]

calabash=Q take:SG=Y/NQ=2SG
Did you take the calabash?

⁵ Voiceless vowels after a glottal stop in coda position are not included here, as they are considered realizations of the glottal stop release. The quality of these phonetic elements is the same as the vowel quality preceding the glottal stop (see section 2.3).

A few lexemes show word-internal voiceless vowels, e.g. reduplicated stems which end in a voiceless vowel, and some noun and verb stems. Note that word-internal voiceless vowels always follow a continuant. The following are examples of reduplicated forms and an exhaustive list of stems that contain word-internal voiceless vowels:

ts'axù–ts'axù–sé	beat lightly
kásìkásì	temple
lémùlémù	way of dancing (ideophone)
fàrìkwà	Farkwa (place name)
gìrìbé	run
hàhìsé	praise
k'óngórùmà	bird, sp.
làhìtà	Lalta (place name)
thásìnó	liver
!hàsìmé	fetch water with a small calabash
 hàsìná	tree, sp.
bàisìkèhì	bicycle (<Sw. <i>baisikeli</i>)

The tone of word-internal voiceless vowels cannot be heard and the test which determines the tone of final voiceless vowels cannot be used here. The phonetic realization of tone after the voiceless vowel may help to determine the underlying tone for voiceless vowels. In all reduplicated stems the high tone after the voiceless vowel is realized on a lower pitch level than the previous high tone (e.g. **lémù^hlémù**). This is predictable if a low tone is posited for the voiceless vowel (**lémù^llémù**).⁶

The tone of word-internal voiceless vowels in other nouns and verbs, which are very few in number, can be high or low. In the following lexemes a high tone is posited: **thásìnó** and **||hàsìná**. The reason for positing a high tone here is the phonetic realization of the final tone in these lexemes: in **thásìnó** and **||hàsìná** the final high tone is realized on the same pitch as the previous high tone, which cannot be explained if the voiceless vowel had a low tone. When followed by a low-toned syllable, the phonetic realization of the following tone does not provide a clue to the tone of the voiceless vowel. By arbitrary convention, the tone of these voiceless vowels is posited as identical to the pitch level of the preceding vowel, e.g. **k'óngórùmà**, **gìrìbé**, **làhìtà**.

The two voiceless vowels can be contrasted to each other and to their voiced counterparts. The contrast between voiceless **ɿ** and **ʊ** is shown by the

⁶ Note however, that the reduplication of verb stems is also characterized by downstep between the two parts (see section 6.2.1). So for reduplicated verb stems there is no need to posit a low tone for the voiceless vowel.

subject/modality clitics =s_i (1SG realis), =s_i (1SG non-realis) versus =s_u (3fSG non-realis).⁷ In the table below, the voiceless vowels are contrasted to their voiced counterparts. The following lexemes contain voiceless vowels both after continuants (**r**, **s**, and **m**) and non-continuants (i.e. obstruents like **k'**, **k**, and **g**):

bòbóri	small gourd
kòṅkòrì	cock
híkí	how?
híkṽ	go (SG)
-ts'í	MID1
-tsṽ	MID2
kùrúkùrù	ankle
kàkúrù	calabash
 'úmú	waist
tímù	swallow
tí'úṅgù	cloud
tí'áráṅgù	dust
nárágù	hunger
n úmsù	wife ⁸
-sù	fSG (nominal gender marker)

The preceding examples show that voiceless and voiced vowels are contrastive. However, word-final **ṽ** always has a low tone and word-final **i** always has a high tone. There are no words with a low-toned voiced vowel **i**. Thus, these word-final voiceless and voiced vowels are in complementary distribution when tone is taken into account. The occurrence of the word-final voiceless vowel **ṽ** is therefore treated as the phonetic realization of a low-toned voiced vowel.

Complementary distribution cannot be claimed for the voiced oral vowel **u**. Although the word-final voiceless **ṽ** also has an underlying low tone, the low tone is not restricted to the voiceless vowel, e.g. **thèndégù** 'legs of bed'.

Word-internal voiceless vowels remain partly unexplained. Their existence is remarkable, because most voiceless vowels occur in word-final position and become voiced when another morpheme or clitic is attached. One can assume that word-internal voiceless vowels in reduplicated stems have a special status: the

⁷ The first person singular realis clitic =s_i has no underlying tone. Its non-realis counterpart has an underlying low tone. See section 5.1 for more information.

⁸ The string **sù** in this lexeme is a frozen gender marker.

voicelessness from the final vowel is preserved on the reduplicated internal vowel. The other word-internal voiceless vowels are found after continuants in a few lexemes that all contain three or more syllables. There are no near minimal pairs that contrast internal voiceless to voiced vowels. Maybe the vowel has been devoiced (and hence shortened) in order to conform better to the predominant pattern of disyllabic roots and stems in Sandawe (see sections 3.1 and 6.1).

2.2. Consonants

The consonants of Sandawe are presented in tables 2 and 3. Table 2 presents the pulmonic and glottalic consonants (ejectives); table 3 demonstrates the velaric consonants (clicks).

Table 2: Pulmonic and glottalic consonants, according to manner and place of articulation

		<i>bilabial</i>	<i>alveolar</i>	<i>palatal</i>	<i>velar</i>	<i>glottal</i>
<i>STOPS</i>	<i>vl. asp.</i>	ph	th		kh	
	<i>vl.</i>	p	t		k	ʔ
	<i>voiced</i>	b	d		g	
	<i>nasal</i>	m	n		ŋ	
<i>FRICATIVES</i>	<i>vl.</i>	f	s		x	h
	<i>lateral</i>		ɬ			
<i>AFFRICATES</i>	<i>vl. asp.</i>			tsh		
	<i>vl.</i>			ts		
	<i>voiced</i>			dz		
	<i>vl. lateral</i>		tɬ			
	<i>voiced lateral</i>		dɬ			
<i>EJECTIVES</i>	<i>vl.</i>				k'	
	<i>vl. affricate</i>		ts'			
	<i>vl. lateral</i>		tɬ'			
<i>LIQUIDS</i>		l, r				
<i>APPROXIMANTS</i>				y	w	

Table 3: Velaric consonants (clicks), according to click type and accompaniment

	<i>dental</i>	<i>alveolar</i>	<i>lateral</i>
<i>voiceless aspirated</i>	h	!h	h
<i>voiceless</i>		!	
<i>voiceless glottalized</i>	ʔ	!ʔ	ʔ
<i>nasal</i>	ŋ	ŋ!	ŋ
<i>voiced</i>	↓	↓	↓

The following consonants have labialized counterparts, as discussed in section 2.3:

- **th, t, n, s, ɬ, tsh, ts, dz, tsʔ, tɬʔ, kh, k, g, x, and kʔ;**
- **|h, |, |ʔ, ŋ|, !h, !, !ʔ, ŋ!, ||h, ||, ||ʔ, and ŋ||.**

2.2.1. Pulmonic and glottalic consonants

This section presents a further description of the pulmonic and glottalic consonants. Examples are provided and (near) minimal pairs show the main phonological oppositions.

With the exception of laterals, stops and affricates distinguish between voiceless unaspirated and voiceless aspirated phonemes (**p, t, k, ts** versus **ph, th, kh, tsh**). The following lexemes show the opposition between the voiceless aspirated, voiceless unaspirated and voiced consonants (**b, d, g, dz**) in near minimal pairs.

phê	tomorrow
pèé	put (SG)
bèébà	be nearby
thékélé	hyena
tétérà	seed(s)
dégérà	tree, sp.
khéʔé	listen
kéké	ear
gélé	baobab
tsí	I
tshí	gums; mushroom, sp.
dzìgídà	heart

The contrast between unaspirated and aspirated consonants can be seen as a fortis-lenis distinction. Sandawe speakers consider the voiceless aspirated consonant as

“normal” and “strong”, its voiceless counterpart as “weak”. The “weak” voiceless consonants may be perceived auditorily as almost voiced.

In loanwords from Swahili, there is no contrast between aspirated and unaspirated consonants.⁹ Standard mainland Tanzanian Swahili does not have a phonemic contrast between aspirated and unaspirated consonants, it only has the series of unaspirated consonants. Words containing a voiceless stop/affricate in Swahili are incorporated in Sandawe with a voiceless aspirated stop/affricate, the “normal” consonant according to native speakers. This is illustrated by the examples below.

phèsáà	money (<Swahili <i>pesa</i>)
tshúphà	bottle (<Swahili <i>chupa</i>)

The affricates **tsh**, **ts**, and **dz** all have two phonetic realizations, one more fronted [**tsh**, **ts**, **dz**] and one more central [**tʃh**, **tʃ**, **dʒ**]. These realizations may be used as free variants within the idiolect of a single speaker. However, it is stressed by elder speakers that the more fronted variant is the “original” one, as pronounced by speakers of Mangastaa and surroundings, the geographical centre of the Sandawe-speaking area. These three affricates are relatively rare, for example when compared to the ejective **tsʼ** (see below).

There are three nasal consonants: **m**, **n**, and **ŋ**. The nasals **m** and **n** are contrasted in the examples below. The nasal **n** is less frequent than **m**, especially in word-initial position. The nasal **ŋ** does not occur word-initially.

méé	big
nèé	stay (PL)
m̀ǹíkí	know, understand
níʔ	go (PL)

In coda position, there is no opposition between the three nasal consonants. The nasal in the coda is a homorganic consonant, whose place of articulation is determined by the following:

m before labial consonants, e.g. **ʔimbô** ‘say’.

n before (post-)alveolar consonants, e.g. **ʔinthó** ‘muscle’, **m̀antshà** ‘eat’.

ŋ before velar consonants and in word-final position before pause, e.g. **kóŋgóràʔà** ‘axe’, **!hêŋ** ‘tongue’.¹⁰

⁹ ‘Swahili’ is consistently used here to refer to standard mainland Tanzanian Swahili that Sandawe speakers are in contact with.

¹⁰ The consonant **ŋ** in coda position should not be confused with the nasal component **ŋ**, which is used in digraphs to transcribe nasal clicks, i.e. **ŋ]**, **ŋ!**, and **ŋ||**.

Across morpheme or word boundaries, a nasal coda consonant can be followed by a glottal stop or a vowel. When the nasal is followed by a glottal stop across morpheme boundaries, the nasal is realized as nasalization of the preceding vowel (see sections 6.3 on clipping before direct object pronouns, and 6.4.1 on the plural marker **-?wá**):

thímé + ?wá > **thíN-?wá** > **thíʔwá** cook (PL object)

When the nasal is followed by a glottal stop across word boundaries, it is pronounced [ŋ]:

?àfà-ŋ ?àlèé [ʔàfàŋʔàlèé]

acacia-DEF (POSS.)branch
A branch of the acacia

When a vowel follows the nasal consonant, the nasal is pronounced [ŋ] and the velar stop **g** appears as an onset-filler (see section 2.3 on syllable structure):

gùtʔé-ŋg=à **ŋ||ókhò**

cloth-DEF=3 wash
He washed the garment.

Note that the nasal **ŋ** is the sole segment in two grammatical markers: the definiteness marker **ʔŋ** (section 3.5) and the linking clitics **-ŋ** (section 7.1).

There are two exceptions to the homorganic status of the nasal in the coda position: the nasal **m** (a plural marker for factitive verb stems) does not change its place of articulation before the factitive stem marker **-sé**:

dzàà-m-sé make touch (PL stem)

Further, the nasal **m** occurs in the lexical item **|wèêm** ‘tree, sp.’ which is additionally exceptional both in syllable structure and tone pattern (rising-falling).

The set of fricatives contains five consonants, all of which are voiceless: **f**, **s**, **x**, **h**, and the lateral voiceless fricative **ɬ**. The fricative **f** is very rare and restricted to occurrences before **e**, **a**, and **u**:

fàré	lie
fàɬkwà	Farkwa (place name)
?àfà	acacia, sp.
làfà	fruit-bearing tree, sp.
k’úk’ùfé	sprout
?áfúré	ox (cf. Alagwa and Burunge 'afuuraa)

The fricative **s** is very common and occurs before all vowel qualities.

sàʔútà	ostrich
sémbéthù	stick used to hold the cooking pot
sìbirí	cooking pot with a small opening
sógóró	large stick
sùrú	wall

The following examples illustrate occurrences of **x**.

xâ	be bad
xéé	stick used to hold the cooking pot
tíʔaxé	beat, hit, strike
xòʔá	tree, sp.
gótíʔóxì	jump to mind
 hàxú	bee, sp.

The fricative **h** is illustrated below. The occurrence of this fricative in word-internal position is rare, the only lexeme in our data is **wàhéew** ‘brother (relative?)’.¹¹

hámá	insult
héew	this (DEM1, m.)
hí ʔá	tie; cover
hògòrí	trade, price
hùmà	win

The set of laterals consists of the fricative **ɬ**, the affricates **tɬ** and **dɬ**, the ejective **tɬʔ**, and the approximant **l**. The lateral affricates are rare and are not attested in word-internal position. The following lexemes contrast the lateral consonants in word-initial position before **a**.

ɬàá	goat
tɬà	bark
dɬàní	arrow
tɬʔàá	take (PL)
lááʔè	hare

¹¹ We do not know the exact meaning of this lexeme. It was explained to us in Swahili as *kaka, siyo mama mmoja wala baba mmoja* ‘brother who does not have the same mother, nor father’. The word might refer to ‘cousin’, although it should then be distinguished from **ʔáíéé** ‘cousin’.

The ejectives are **ts'**, **tʃ'**, and **k'**. In the examples below **ts'** is contrasted to the affricates **tsh** and **ts**. The ejective is common, both word-initially and word-internally.

ts'è	hair
tshèé	be absent
tsèé	head

The lateral ejective **tʃ'** has been contrasted to the other lateral consonants above. The consonant occurs word-initially and word-internally before all vowel qualities, except, word-internally, before **i**.

tʃ'óxó	dig holes to plant
tʃ'íthé	slaughter
phútʃ'úmà	peace
k'átʃ'é	be stupid

The liquids **l** and **r** are contrasted below. Word-initial **r** is rare when compared to **l**.

rátà	tree, sp.
làfà	fruit-bearing tree, sp.
rón	voice
lòngósù	genet
báárì	rainy season
bàlímáá	female in-law
pàràré	sketch on ground; cure by sweeping a feather
kípálálá	sweat
gòrò	pillar
bògòlò	honey bag

The approximants **w** and **y** are rare. Word-initially, **w** is most common before **a** and **e**, **wo** and **wi** are attested once, and **wu** is not attested. Word-internally, **wa**, **we**, and **wo** are attested.

wàré	friend
wàʔé	babble
wèré	walk
wówón	mosquito (ideo.?)
wíkhì	week (<Sw. <i>wiki</i>)

kéléwà	milk container
sàwàʔàté	yawn
!ʔawé	fall (SG)
 úwé	shoot with an arrow
sàndawé	Sandawe
púw-ó	pestling (NMN)

In very few examples, **w** occurs in the coda position of the syllable (see section 2.3).

wàhéew	brother (see footnote 11)
 ʔéew	buffalo

Word-initially, **y** only occurs before **a**. It is attested in the following lexemes:

yàʔamé	get used to
yàʔabé, yáʔábóó	to work, work (n.)
yàya	elder sibling

Word-internally, the approximant occurs before **a**, **e**, and **o**.

dòʔóʔóya	flamingo
 híya	Kirk's dikdik
tshíya	all
síyé	take (SG)
ʔiyé	stay (PL)
bóyó	seed
sàyò	converse ¹²

Finally, the approximant **y** can appear in the coda of a syllable (see section 2.3). It is very rare in lexemes (e.g. **wámbôy** 'uncle' and **kwáây** 'shoulder'), but more common as the realization of a grammatical marker **-i**:

màná-á-ì	[mànááy]
know-3O-3:NR	
He will know it	

¹² In an alternative pronunciation, the approximant is left out. See section 2.3 on syllable structure.

In some cases, particularly in morphophonology, the approximants function as glides which fill the onset of phonemically onsetless syllables. The glide will be written when morpheme boundaries are not marked.

hí=à, híyà

SUB:CNJ=3
If/when he

ŋ!é=àà, ŋ!éyàà

day-SFOC
Day (subject focus)

The glottal stop has full phonemic status. The following pairs contrast the glottal stop to **h** and **k** in initial position.

ʔimé rumble, groan
hímé smell

ʔò here
kò just

ʔàlèé branch
hàl̩sé praise

A word-initial glottal stop could be analyzed as an automatic consequence of the articulation of an initial vowel. However, the initial glottal stop is never omitted in speech, for example when it separates two identical vowels. Therefore, the word-initial glottal stop is treated as a phoneme.

ts'òŋ hí-sà ʔàtèé=sà mântshá=ɪŋ hèsú tshíná-nà=sà ʔámín̩
hippo SUB:CNJ-3fSG cactus=3fSG eat=SUB she (POSS.)anus-DIR=3fSG believe
When a hippo eats a cactus, it trusts its anus. (Saying).¹³

hí-sà ʔàtèé=sà * [hísà:tèésà]
tshíná-nà=sà ʔámín̩ * [tshínánàsà:mín̩]

Note that, whereas words always start with a consonant, several clitics start with a vowel, e.g. the following subject/modality markers: =ɪ (2SG realis; 3 non-realis), =à (3 realis), =ò (1PL realis), and =è (2PL realis). The 3PL realis clitic has two variants: =àʔà and =ʔà (see section 5.1.1).

¹³ Explanation: Do not try to imitate something you do not have the capacity for.

The word-internal glottal stop may appear in the onset or the coda of the syllable. When it occurs in the onset, it usually separates two identical vowels, except for verb roots with a final **é**.

ɬàʔáɬù	cheese
yàʔámé	get used to
dòʔóʔóyà	flamingo
bàʔé	grow, be big
 'òʔé	gnaw
thùʔé	reply

A glottal stop in the coda position of a syllable is infrequent, but it is found both in lexemes and in grammatical markers. The glottal stop is followed by a voiceless vowel, which has the same quality as the preceding vowel.

mâʔà	be tired
sàwàʔàté	yawn
kúʔúnà	gourd

In the verbs below, the glottal stop is part of the plural verb marker **-ʔwá**, which is attached to (clipped) verb stems (see section 6.4.1):

bô-ʔòwá-	say (PL)
khǎ-ʔáwá-	hit (PL)

2.2.2. Clicks

Table 3 has demonstrated the consonants that are produced with a velaric airstream mechanism, i.e. clicks. Three click types are distinguished: dental (ǀ), alveolar (ǃ) and lateral (ǁ). Each click type has five accompaniments: voiceless aspirated, voiceless, voiceless glottalized, nasal, and voiced. This gives a total of fifteen click phonemes in Sandawe. In lexical items, clicks are as common in Sandawe as pulmonic and glottalic consonants. In function words and grammatical markers clicks are absent.

There is considerable variation in the literature in the use of click type labels and the orthographic representation of click types. Ladefoged and Maddieson (1996:248) give an overview of classifications of click types by several authors. Their discussion shows that a lot of variation is found for the alveolar click type (ǃ). The variation is explained among others by different timepoints used in measuring the place of articulation: “The maximum occlusion during a click is more extensive than the occlusion that exists just before the release; judgements on the place of

articulation will vary according to whether place is based on the maximum occlusion or a later timepoint” (id:249). In this way, the description of the click type transcribed as ! can be found as alveolar or post-alveolar (contact just before release), but also as palatal (measurement during maximum occlusion).

Moreover, “auditorily similar click types can be produced by different speakers using somewhat different articulations” (id:249). Ladefoged and Maddieson particularly note variation in the production of the alveolar click type in Sandawe and Hadza (id:253).

The present description follows Ladefoged and Maddieson (1996) in using *alveolar* as a non-specific label for the click type ! in Sandawe. For this study no detailed phonetic investigation has been made in order to show variation in the production of the alveolar click type among speakers. The allophonic variant of the alveolar click type in which “the tongue tip makes contact with the bottom of the mouth after the release of the front click closure” (id:253), has occasionally been noted during fieldwork sessions. It is treated as a free variant of the alveolar click type, and therefore it is not distinguished in the transcription.

The two sets of examples below contrast the different click types and the accompaniments, respectively. The contrast between the three click types is illustrated by glottalized clicks:

'èé	look at, inspect	(dental)
!'èé	earth, clay	(alveolar)
'èé	to skin	(lateral)

The contrast between the five click accompaniments is exemplified by alveolar clicks.

!hâŋ	place where millet is beaten	(voiceless aspirated)
!â	moonlight	(voiceless)
!'àwé	fall	(voiceless glottalized)
ŋ!á	grasp, catch	(nasal)
!â?à	sound of something soft falling and hitting the ground (ideo.)	(voiced)

Word-initial clicks are common, but word-internal clicks are relatively rare. Examples with a word-internal click often have a word-initial click as well, but word-initial pulmonic and glottalic consonants also occur. Examples in the latter set frequently contain a word-initial **h**.

!ún!è	kidney
'ò 'á	baboon
hùn á	ant heap, k.o.

 hìn ó	tree, sp.
?ǎn húmà	tree, sp.
máá ’à	louse
séŋ á	tree, sp.
k’á!’à	grind, soften
híŋ á	urinate
hó ’óŋ	fill
hí ’íŋ	heat
há!à	call

Voiced clicks are very rare. Only two lexemes in our data contain voiced dental clicks.¹⁴ Note that both have word-initial as well as word-internal clicks.

ǰǰ óó	bird, sp.
ǰǰ ísà	slope

Eight lexemes in our data contain a voiced alveolar click. Five of these contain a word-internal **kh**, as shown below:

ǰékhé	tree, sp.
ǰàkhíná	carry sth. under one’s arm
ǰáákhò	raised, open place
ǰàŋkhára	hard field
ǰòkhómí	antelope, sp.

The rest of the examples contains at least one ideophone:

ǰá?à	sound of smth. soft falling and hitting the ground (ideo.)
ǰúŋ	explode (ideo.?)
ǰònǰòwásì	bird, sp.

Two lexemes in our data have voiced lateral clicks, both word-initially and word-internally.

 á à	meat of the high back, around the shoulders
 ó è	big male of greater kudu

¹⁴ Elderkin (1994) also presents only two examples that contain a voiced lateral click: **ǰǰ|ó:** ‘bird, sp.; pytilia’ and **ǰé:** ‘slope’. Probably, **ǰǰ|ísà** in our data is a complex form, which may be derived from a root **ǰi** or **ǰe**.

The voiced lateral click seems to be the rarest among consonants in Sandawe. The two lexemes above were provided by one consultant when asked for any words that contain [ɓ]. Other consultants could not provide any examples, nor did they know the meaning of the two lexemes when they were presented to them. An old word list, which is probably copied from Ten Raa's informant Pius Duma, had two lexemes. The words, which are retranscribed below in the current writing system, correspond more or less to our examples:

ɓàɓhà	<i>mfupa juu ya kidari</i> (bone above the chest)
ɓògè (or ɓògè)	<i>dume kubwa la mnyama, hasa lenye pembe kubwa</i> (large male animal, especially one with big horns/antler)

Vowels before glottalized and voiced clicks are automatically nasalized, both word-internally and across word boundaries.

[ká!ʼà]	grind
[hó!ʼòŋ]	forehead
[ɓ!ísà]	slope
[ɓ!ògè]	big male of greater kudu

[hòntàsà ʼèé]	hòn-tà=sà	ʼèé
	cave-in=3fSG	look_at
	She looked inside the cave.	

De Voogt (1992) and Elderkin (1992) also claim that the nasalization of vowels before glottalized clicks is automatic. De Voogt presents an articulatory description of glottalized clicks in Hadza and Sandawe in which he assumes a delayed glottal closure (as opposed to the voiceless click). Nasalization of preceding vowels then results from an open velic which keeps the pharyngeal air pressure low as long as the glottis is open. Voiced clicks are not treated because they were not recorded during his research. Elderkin (1992:113) states that he “always heard this nasality before the glottalised click when it follows a vowel; I have never noted it before any other of the oral clicks, including the aspirated click”.

This type of predictable nasalization before glottalized and voiced clicks is not further marked in transcriptions, hence /ká!ʼà, hó!ʼòŋ, ɓ!ísà, ɓ!ògè/.

2.3. Syllable structure

Sandawe has open and closed syllables. Open syllables contain an initial consonant in the onset and a vowel in the nucleus which may be short, long or voiceless: CV, CVV, or CV̥. Closed syllables, which are less frequent, contain an additional

consonant in the coda: CVC, or CVVC. The following description presents a short overview of elements in the onset, nucleus and coda.

Syllables always have a consonant in the onset position. Although some morphemes and clitics may consist of a vowel only, this never results in onsetless syllables. When the vowel is attached to its host it either merges with the preceding vowel in the nucleus, or, in the case of **i**, it may fill the coda position as a glide **y**. When the vowel follows a syllable with a nasal coda consonant, it forms a new syllable. In this case, the onset-filler **g** appears between the nasal **ŋ** and the vowel **aa**:

tsèè-ŋg-àà hík'ŋ , head-DEF-SFOC go:SG The head went	tsèè-ŋ-àà > tsèèŋ.gàà CVV-C-VV CVVC.CVV
---	---

The consonant in the onset position can be simple or complex. Simple onset consonants are all pulmonic, glottalic and velaric consonants, except **ŋ** (see section 2.2.1). Labialized consonants are complex consonants. In our description of these consonants we leave the question open whether they are single segments (C^w) or consonant clusters (Cw). A digraph is used throughout the transcriptions.

Labialization is the only type of secondary articulation for consonants in Sandawe. The rounding of the lips takes place simultaneously with the primary articulation. Over half of the consonants has a labialized counterpart:

- the (post-)alveolar consonants **th**, **t**, **n**, **s**, **ʃ**, **tsh**, **ts**, **dz**, **ts'**, and **tʃ'**;
- the velar consonants **kh**, **k**, **g**, **x**, and **k'**;
- the velaric consonants **h**, **l**, **l'**, **ŋ**, **!h**, **!**, **!'**, **ŋ!**, **||h**, **||**, **||'**, and **ŋ||**.

The consonants without a labialized counterpart fall into several groups. In terms of place of articulation, labial and glottal consonants do not occur with additional rounding. Regarding manner of articulation (or efflux for the clicks), the following consonant types cannot be labialized: voiced stops (with the exception of **g**), nasals, lateral affricates, liquids and approximants, and voiced clicks.¹⁵

Labialized consonants occur in word-initial and word-internal position, but most of them appear word-initially. The following lexemes contrast labialized consonants to their unrounded counterparts:

k'wé	kill
k'é	cry
 wâ	name
 â	plant (v.)

¹⁵ The incorporation of Swahili loanwords in Sandawe strengthens the claim for the absence of certain labialized consonants: Swahili *pwani* has become **pháani-nà** 'on the coast' in Sandawe.

There are some additional interesting facts about labialized consonants:

- co-occurrence restrictions for labialized consonants and vowels
- variation between labialized consonants and consonant-vowel sequences
- the formation of labialized consonants as the outcome of a diachronic, morphophonological process.

First, the occurrence of labialized consonants is restricted to syllables which contain an (unrounded) vowel: **i**, **e**, or **a**. The vowel qualities **o** and **u** cannot co-occur with labialized consonants.¹⁶ The examples illustrate the co-occurrence of labialized consonants with short and long oral vowels **i**, **e**, and **a**.

!hwíkʔ	insect, sp.
ts'wìŋkírì	snail
thwí	bird
mágwélà	lower leg
fwéʔé	come out quickly
twèé	night
gwàbé	be thirsty
 'wǎŋ	millet
dzwàá	stick

Second, variation has been noted for some lexemes which contain labialized consonants. In careful speech the syllable which consists of a labialized consonant and a vowel undergoes a process of breaking. This results in two new syllables: one which contains the non-labialized consonant and a rounded vowel, followed by a second one which contains the original vowel of the first syllable. An automatic glide **w** connects the two vowels:

ŋ wàá, ŋ òwáá	elephant
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The numeral 'three' has two free variants. One has a labialized consonant, which is followed by **a**; the other has an unrounded consonant which is followed by the rounded vowel **o**.

swàmíkìxì, sòmíkìxì	three
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Finally, in two examples labialized consonants are apparently the result of former morphophonological changes.

¹⁶ Another co-occurrence restriction is that labialized velar consonants (**khw**, **kw**, **gw**, **xw**, and **k'w**) are never followed by **i**.

máxà ŋ wéé	male child, son
n wéé	do, create

These words, which display frozen morphology, can be compared to morphologically simple forms. The rounded vowels in the simple forms are realized as rounding of the preceding consonant in the complex forms: $CV_{[rounded]}+V > CwVV$. The vowel **ee** in **máxà ŋ||wéé** is a frozen gender marker (**-é**), which was added to the noun root **ŋ||dó** ‘child’. The verb root **ŋ||wéé** ‘do, create’ can be compared to the clipped form **ŋ||ú-**, which is the basis for plural verb stem formation (see section 6.4.1). The verb root **ŋ||wéé** seems to contain a frozen (object?) suffix, which is realized as a long vowel **ee**. The rounded vowel **u** is realized as rounding of the click **ŋ**. Note that the long vowels in the forms cannot be explained.

The nucleus of the syllable is filled by a short, long, or voiceless vowel. There are no diphthongs in Sandawe. When a morpheme with a vowel-initial syllable is attached to an open syllable (CV(V)-V), the structure of the nucleus can be preserved in three ways:

- the vowel becomes part of the nucleus of the same syllable. The vowel quality of the preceding word is lost; e.g. **máxé=à** [**máxáà**] ‘he is smart’
- the vowel forms a new syllable, which has an initial glide; e.g. **wèré=à** [**wèréyà**] ‘he walks’
- if the vowel is **i**, it can occupy the coda position of the syllable as the approximant **y**; **thímé-ì-sù** [**thíméysù**] ‘cook, f.’.

The following consonants can occur in the coda position of the syllable: **w**, **y**, a homorganic nasal, **m**, and **ʔ**.

The coda consonant **w** has only been attested in the examples below. In the first two examples **w** is a suppletive masculine gender marker, which is only used with demonstratives and **láá** ‘be good, fine’.

hèéw	this (DEM1, m) (cf. hèé-sù ‘this’ DEM1, f.)
lááw	(he is) good (cf. láá-sù ‘(she is) good’)
wàhéew	brother
 ’èéw	buffalo
?èmáw	antelope, sp.
 ’èw	soil, k.o.; vegetation, k.o.
kéwtò	wild pig

The coda consonant **w** also occurs in an alternative pronunciation of **sàyò** ‘converse’. The glide **y** is absent and the final vowel **o** is realized as a coda consonant: [**sàw**].

The coda consonant **y** is more frequent, because it is a common realization of the nominal agent suffix $\rightarrow\text{ɪ}$ and the subject/modality clitics $\Rightarrow\text{ɪ}$ (2SG realis and 3 non-realises). It also occurs in the nouns **wámbôy** ‘uncle’ and **kwáây** ‘shoulder’.

fàré-ỳ, fàré-ỳ-sù	liar (m., f.)
màná-á=ɪ [mànááy]	he will know it
wámbôy	uncle, father’s brother
kwáây	shoulder

A nasal in the coda position is either an instance of a homorganic nasal consonant, e.g. **ríngó** ‘go around’, or the (invariable) nasal **m** as the plural factitive stem marker, e.g. **hù|’ù-m-sé** ‘taste from a dipped finger’ (see section 6.2.3 for more examples). In mono-morphemic lexical items, there is no distinctive length of the vowel before the nasal coda consonant: CVN. When the nasal is part of a grammatical morpheme, it may be attached to short or long vowels: CV-N or CVV-N.

The glottal stop **ʔ** in the coda position occurs both in lexical items and grammatical markers (see section 2.2.1). The glottal stop is automatically followed by a voiceless vowel, which has the same quality as the preceding vowel, e.g. **ɬàʔàté** ‘die’, **ɬwéʔé** ‘come out suddenly (SG)’, **khúʔù** ‘be dumped, be thrown up’. There are only two lexical items in which the glottal stop follows a long vowel: **!’ááʔá** ‘move closer to’, and **!ááʔásò** ‘moon’.

Sandawe has no complex codas at the phonetic level. In one instance, namely plural verb stems with a nasal, a nasal consonant and a glottal stop would both appear in the coda, but this is resolved in the phonetic realization. Disyllabic verb roots which end in **mé** or **né** undergo clipping (reduction of the final syllable) before the plural object marker $\rightarrow\text{wá}$, e.g. **ɬómé** ‘cultivate’ > **ɬÓN-**; where **N** is a homorganic nasal element (for more information on clipping, see section 6.3). When the plural marker is attached, the glottal stop appears in the coda position of the preceding syllable. The vowel which precedes the glottal stop is nasalized (as the realization of the nasal element): **ɬʔówá**. For more information see sections 6.3 and 6.4 on clipping and verbal plurality marking, respectively.

2.4. Tone

The description of tone in Sandawe first identifies the tonemes in (nominal and verbal) roots and presents an overview of their distribution. Then issues in the tone of grammatical elements are treated. Finally, tone in phrases and clauses is discussed.

Tone is constant in noun and verb roots, except for a few derivational suffixes that change the tone pattern of the root (e.g. the deverbal marker $\rightarrow\text{ó}$, section 3.4.2). The tone system is based on two level tones, high (´) and low (˘), and the rising

contour tone (ˇ). The phonemic status of the falling contour tone (^) is problematic, see below. Contour tones are very common at the phonetic level, but they have a restricted distribution. It is demonstrated that contour tones are often allotones of level tones, or are compound tones which are made up of two level tones. Lexical tone marking in the transcriptions stays close to the phonetic realization, with exceptions indicated below. In the description, the syllable will be taken as the basic tone bearing unit.

The following pairs contrast high and low tones in word-initial and word-final position, respectively:

hámà	sweep moisture
hámá	insult
 'ínà	breast
 'íná	sand

The rising contour tone has a more restricted distribution. The rising tone is only phonemically distinct on long vowels and on syllables with a nasal coda consonant. It is most common in monosyllables, where it can be contrasted to the high level tone.

tshàá	tear
tsháá	cooking pot
 òó	track, path
 'óó	to rain
ts'òŋ	rhinoceros
ts'óŋ	tree, sp.

The lexical item **||'ěw** ‘kind of soil; kind of vegetation’ is the only example of a syllable with a coda consonant **w** which has a rising tone.

A different kind of rising tone is a compound tone, which is formed in contracted, bound forms. When disyllabic verb roots are clipped, the original tone pattern is preserved on the resulting single syllable. If the tone pattern on the disyllabic word was low-high, the tone on the clipped, monosyllabic verb is rising. This rising tone is realized on a short vowel: e.g. **|hàwé** > **|hǎ-** ‘draw (bow)’.

The phonemic status of the falling contour tone is problematic. The tone occurs in the following environments:

- as a variant of an initial low tone in roots with an all low tone pattern
- in monosyllabic roots with a CV(N) structure
- as a compound tone, which is formed when a high and a low tone are merged.

In roots with an all low tone pattern, the root-initial low tone may be realized as a falling tone. The occurrence of this type of falling tone is most frequent in citation forms of disyllabic roots with an initial CVC structure and trisyllabic roots with an internal voiceless vowel.

dzândzà ~ dzàndzà	back
hûmbù ~ hùmbù	cow
gwârtà ~ gwàrtà	he-goat ¹⁷
fârîkwà ~ farîkwà	Farkwa (place name)
làḥtà ~ làḥtà	Lalta (place name)

Note that the falling tone does not occur when the subject focus marker **-aa** is suffixed to these roots. The tone of the focus marker is usually a copy of the final tone of the preceding root, but for roots with an all low tone pattern, the tone of the marker is rising (instead of low):

dzàndzà-àá	back (+focus)
hùmbù-àá	cow (+focus)

The falling tone also occurs in monosyllabic CV and CVN roots.

ts'â	water
ŋ!ûŋ	mouth

The falling tone in monosyllabic roots is in complementary distribution with the low tone, as the low tone does not occur in any monosyllabic roots (see below). Unlike the falling tone in disyllabic and trisyllabic roots, it is invariable in monosyllables. Therefore, the falling tone in monosyllabic roots can be analyzed as the realization of an underlying low tone.

ts'â	/ts'â/	water
ŋ!ûŋ	/ŋ!ûŋ/	mouth
ŋ!ê	/ŋ!è/	day
thâ	/thà/	run (SG)
 'ô	/ 'ò/	sleep (PL)

Note that when the subject focus marker is suffixed to monosyllabic roots with a falling tone, its tone is low. The tone of the root remains a falling tone, e.g. **ŋ!êyàà** 'day (+focus)'; **ŋ!ûŋgàà** 'mouth (+focus)'.¹⁷

¹⁷ The form has an exceptional CVC-CV structure with **r** in the coda position. It is related to West-Rift Southern Cushitic ***gwereta** (Kießling and Mous 2003:128). Compare also Iraqw **gurta** and Burunge **gwereti**.

Finally, the falling tone occurs when a high and a low tone merge. This compound tone is formed in lexical items when the definiteness marker $\rightarrow\eta$ is suffixed to a word with a final high pitch. When the preceding tone is a rising tone, a rising-falling pattern results.

ts'èŋ	< ts'é→ŋ	the hair
gùtí'èŋ	< gùtí'é→ŋ	the cloth
!hwéèŋ	< !hwéé→ŋ	the hole
mìsíkóòŋ	< mìsíkóó→ŋ	the beehive
dzwààŋ	< dzwàá→ŋ	the stick
wàgìnèèŋ	< wàgìnèé→ŋ	the guest (m.)

Note that in the system of tone marking which is used, surface tone is marked. Therefore, a falling tone can be either the realization of an underlying low tone in monosyllables (**ts'â** 'water' < /**ts'â**/) or the compound falling tone (**ts'èŋ** 'the hair' < **ts'é→ŋ**).

The following tables present an overview of the distribution of tone in nominal and verbal roots according to the number of syllables and provides examples:

Table 4: Distribution of tone in monosyllabic roots

Tone	CV	CVV	CVC
Low (L)	*	*	*
Falling (F)	 'ò to sleep	*	 hòŋ cave
High (H)	ŋ ó to fear	 'óó to rain	ts'óŋ tree, sp.
Rising (R)	*	 'òó to harvest	 'áŋ well; warthog

- There are no monosyllabic roots with a surface low tone. Monosyllabic roots with a falling tone can be analyzed as having an underlying low tone pattern.
- CV roots can only have a falling or a high tone. Note however that CV roots with a high tone are very rare and all examples are verb roots. The falling tone on CV roots is common.
- There are no CVV roots with a falling tone.
- **ts'óŋ** is the only example of a CVC root with a high tone.
- The lexical item **|wèém** 'tree, sp.' has an exceptional syllable structure and a rising-falling tone pattern (LHL) which has further only been noted for the demonstrative **hèéw** 'this (DEM1, m.)' and morphologically complex forms that contain compound tones (e.g. **mànááy** 'he will know it').

In polysyllabic roots, the falling tone is a variant of the low tone in initial position, as described earlier. The falling tone is therefore not included in the following tables.

Table 5: Distribution of tone in disyllabic roots

Tone pattern		
L-L	ʔàfà	accacia, sp.
	màná	know
	mìndà	field
	gwàrtà	he-goat
L-H	yàyá	elder sibling
	ɲ àtí	come (PL)
	sìngáá	eyebrow
	!'àkán	tooth
L-R	!èkòó	bulrush millet
	kòlòŋ	hoe
H-L	ʔúpà	grass
	 'únì	ripen
	dzáágò	hunting net
	bááŋ	rainy season
	ɲ áthìŋ	nose
H-H	kókó	chicken
	táné	pull
	ʔúfí	salt
	ʔááná	maize
	sómbá	fish
	ɲ ówáŋ	star
H-R	ts'íròó	tree top
R-L	!wèéyà	African teak
	mèénà	to love
	ɲ!àáxìŋ	bridge of the nose
R-H	ts'òóts'í	hunger
	tʃ'àngáá	lizard
R-R	*	

- There are no roots with a pattern of consecutive rising tones.
- **ts'íròó** 'tree top' is the only disyllabic root with a high-rising tone pattern.
- There are no CVV syllables with a low tone.
- The all low tone pattern is rare.

- Noun roots have more closed syllables and syllables containing long vowels than verb roots. Therefore tone patterns for verb roots with a rising tone, e.g. **mèénà** ‘love’, are very rare.
- The word **nǎŋ'gwé** ‘cat’ has an exceptional downstepped high tone. This may be the result of a merged low and high tone (assuming a frozen gender marker): ***nǎŋgù-é**; alternatively it may be the realization of an underlying rising tone on the final vowel, which has been shortened ***nǎŋgwèé** > **nǎŋgwě** / **nǎŋ'gwé**.¹⁸

¹⁸ Cf. Alagwa and Burunge ***munyaangwee** ‘wild cat’ (Kießling and Mous 2003:211).

Table 6: Distribution of tone in trisyllabic roots

Tone pattern		
L-L-L	mòkòlà	greet
	kòsègà	think
	wàròṅgò	ancestral spirit
L-L-H	tí'ák'ímé	shoe
	kíràngí	roasting rack
L-H-H	Ḷòkhómí	big antelope; sp.
	 ák'áts'á	ask
	mòpókáá	potato
L-H-L	ḶàḶàngè	chameleon
	kòḶnávà	damage
H-H-H	sógóró	large stick
	báṅk'ásá	wooden door
	góxómbéé	shaft of arrow
H-L-H	hánàkí	sit (PL)
	k'úk'ùfé	sprout
H-H-L	tétéra	seed
	tí'ók'óndò	mud
	kóṅgórà?à	axe
H-L-L	khókhòtà	invite
	Ḷóxòmà	sauce
L-L-R	bègèràá	large gourd
	!òròrḶḶ	frog
R-H-H	nḶḶgóló	insect
	xòóxórí	crow
H-R-L	?áḶáámù	upper arm
	Ḷá?áámù	castrated ram

The distribution of tone patterns in trisyllabic roots shows that all combinations of low and high tones are possible. The rising tone only occurs in a few patterns and examples are rare.

As noted above, tone marking of lexical items stays close to the phonetic realization. The following cases present some exceptions:

- a low tone after one or more high tones is automatically realized as a falling contour tone, e.g. **káákà** [káákâ] ‘dog’. (There is no contrast between falling tones and low tones after a high tone.)
- a high tone after a word-initial click is sometimes perceived as a rising tone, e.g. **ŋ|ówán** [ŋ|ówán] ‘star’. (There is no contrast between rising tones and high tones after a click in open syllables with a short vowel.)
- a rising tone after a high tone may be realized as a downstepped high (level) tone, especially in fast speech, e.g. **?áàámù** [ʔá‘láámù] ‘upper arm’.

2.4.1. Tone on voiceless vowels

Tone on voiceless vowels cannot be heard and is not fully contrastive. The tone, which can be high or low, depends on the type of voiceless vowel and on its position in the word.

The phonemic voiceless vowels **ɨ** and **ʉ** should be distinguished from voiceless vowels that occur automatically following a glottal stop. The vowels **ɨ** and **ʉ** most frequently occur in word-final position. All word-final voiceless vowels have a low tone, e.g. **híkʔ** ‘go (SG)’; **kámákʔ** ‘cheek’. The tone cannot be heard when lexemes are used in isolation, but it surfaces when suffixes or clitics are added and the vowels become voiced (see section 2.1).

Word-internally, the phonetic realization of tone after the voiceless vowel can be used in a few words to determine the underlying tone for voiceless vowels. For example in **kásɨkásɨ** ‘temple’, the high tone following the word-internal voiceless vowel is realized on a lower pitch than the initial high tone. This is predictable because of automatic downstep when the voiceless vowel has a low tone. The lexemes **thásɨnó** ‘liver’ and **||hásɨná** ‘tree, sp.’ have a high toned voiceless vowel. The final high tone of these words is realized on the same pitch as the previous high tone, which cannot be explained if the voiceless vowel has a low tone.

In other lexemes, the phonetic realization of the final tone cannot predict the tone of the voiceless vowel. By arbitrary convention, the tone of these voiceless vowels is posited as high or low, depending on the pitch level of the preceding vowel, e.g. **gɨ̀bɛ́**, **k’óŋgórɨ̀mà** (see section 2.1 for more examples).

Voiceless vowels after a glottal stop are realizations of the glottal stop release. They occur with the glottal stop in the coda position of the syllable. The quality of these vowels is the same as the vowel quality preceding the glottal stop. By convention, the tone of these voiceless vowels is posited as high or low, depending on the pitch level of the preceding vowel:

kúʔú̀nà	calabash
káʔá	that (complementizer)
dòʔóʔó̀yà	flamingo
sàwàʔà̀tè	yawn
díʔsèé	old man

Note that the voiceless vowel in the verb stem **níʔ** ‘go (PL)’ is preceded by a glottal stop, but the tone differs from the preceding tone. In this case the voiceless vowel is not considered part of the glottal stop, but as a word-final voiceless vowel **ʔ**. The low tone surfaces in morphophonology, for example when the linking clitic **-ʔ** is added: **níʔ ʔ-ʔ**.

2.4.2. Tone on coda consonants

The only coda consonants that can bear a (low) tone are **y** and **w**. In both cases, the consonants are realizations of a tone-bearing vowel (**ɪ** and **ʊ**). The consonant **-ỵ** occurs either as a nominalizing suffix, or as a subject/modality clitic (3 non-realis and 2SG realis):

fàré-ỵ	< fàré-ɪ	liar
mànááỵ	< màná-á=ɪ	he will know it; you know it

The consonant **-ẉ** occurs in **hèéẉ** (‘this, m.’) and **íááẉ** (‘good, m.’). Although there is no productive masculine suffix **-ẉ**, the tone bearing vowel is assumed in analogy to the other forms in the two paradigms, which have a productive gender/number marker:

hèéẉ	this (m.)
hèé-sù	this (f.)
hèé-sò	these (PL)
íááẉ	good (m.)
íáá-sù	good (f.)
íáá-sò	good (PL)

2.4.3. Tone on grammatical markers and clitics

Most grammatical morphemes and clitics in Sandawe have tone. They are attached after their host and tone is added to the tone pattern of the root or stem, together

forming the tone pattern of the phonological word. The majority of nominal suffixes, postpositions and subject/modality clitics have a low tone; most verbal markers (verbal stem markers and object suffixes) carry a high tone. The suffix **-sê** (marking places and place names, see section 3.4.5) and the infinitive suffix **-ʔɔŋ** (see section 3.4.2) have a falling tone which can in both cases be analyzed as a compound tone.

The clauses below illustrate how tone is realized across morpheme boundaries. In the second line of each example, the grammatical markers and clitics are separated from their hosts and displayed with their own tone.

au ɡiŋɡiyò ɡáwàtàyêŋ ts'áánà xéésùnè
 au ɡiŋɡiyò ɡáwà-tà-yé-`ŋ ts'áá-nà xéé-sùŋ-nè
 or ɡiŋɡiyò mountain-in-m-DEF (POSS.)home-DIR bring-1PL:NR=Y/NQ
 Or will we get him to the house of ɡiŋɡiyò, from the mountain?

hèwé kèlèmbàngà ŋ||èésú'ké
 hèwé kèlèmbá-`ŋ=à ŋ||èé-súkù-é
 he (POSS.)skin-DEF=3 enter-CAUS2-3O
 He put on his skin. (Source: Animal story “Hare and Civet cat”)

|âŋɡésí tsí |'wèéŋinsí
 |âŋ-é=sí tsí |'wèé-ŋŋ=sí
 see-3O=1SG I (POSS.)eye-INSTR=1SG
 I have seen it with my own eyes.

Occasionally a downstepped high tone is formed, due to vowel coalescence. This occurs for example when the object suffix **-é** follows the causative stem marker **-kù**, which is realized as **kw`** or **k`** before a vowel:

ŋ||úŋ'k`ésí
 ŋ||úŋ-kù-é=sí
 stand_upright-CAUS1-3O=1SG
 I put it up.

A few grammatical markers and clitics display special characteristics with respect to tone. For some, tone is dependent on the tone of the preceding element, while others affect the tone (pattern) of the root.

The subject focus marker **-aa** and the topic marker **-ki** are underlyingly toneless. The pitch on which these morphemes are realized is identical to the pitch height of the preceding element: low after a preceding low or falling tone; high after a preceding high or rising tone.

gáwàkìyàà

gáwà–kì–aa

mountain-TOP-SFOC

And as for the mountain,

gìtí'èṅgàà

gìtí'é-ṅ–aa

cloth-DEF-SFOC

the cloth (+focus)

khòówáá

khòó–aa

household-SFOC

household (+focus)

hèwékí

hèwé–kí

he-TOP

As for him,

Note however that the subject focus marker is realized on a rising pitch when all preceding tones in the word are low:

hùmbùwáá

hùmbù–aa

cow-SFOC

cows (+focus)

The nominal suffix **–kìʔiŋ**, which marks language names, has low tone. However, when preceded by a root which has all low tones, **kí** has a high tone:

sàndàwé–kìʔiŋ Sandawe

tswèésò–kìʔiŋ Nyaturu

thàthùrù–kìʔiŋ Datooga

ʔiràmbà–kìʔiŋ Nyiramba

The tone of some morphemes affects the tone (pattern) of the root. First, suffixes with a preceding floating tone can affect the last tone of the root or stem. Examples are the definiteness marker **–ṅ** and the 1SG realis subject clitic **–sṅ**. The floating low tone is realized on the preceding syllable, which results in a falling contour after a high tone, or a rising-falling contour after a rising tone. There is no effect when the floating low tone is preceded by a low or a falling tone.

gítí'èŋ
gítí'é-ŋ
 cloth-DEF
 the cloth

ŋ||èésì
ŋ||èé-`sì
 arrive-1SG:NR
 I will arrive

Second, the factitive stem marker **-sé** changes the tone pattern of the preceding verb root: a factitive stem has all low tones before the factitive marker.

dzaàsé	cause to be contiguous	<	dzáá	be contiguous
gòtí'òxìsé	remember	<	gòtí'óxì	jump to mind

Finally, the deverbal marker **-ó** changes the tone pattern of the root. The deverbal noun has all high tones.

hónó	(act of) collecting	<	hóná	collect (honey)
phúmphúsó	(act of) offering	<	phúmphùsé	offer

2.4.4. Tone and pitch in the phonological word and larger domains

The current section presents a short overview of (the realization of) tone in phonological words and larger domains. Downdrift, downstep, and upstep are discussed, which operate locally and not at clause or utterance level. The presence or absence of these pitch phenomena define phonological phrases, which show a close relation with syntax and information structure. For an elaborate analysis of the use of pitch in Sandawe, see Elderkin (1989). Dobashi (2003; 2004) uses his data to provide a syntactic analysis of tone in Sandawe. Eaton (2002) investigates tone as one of the means of marking information structure in Sandawe.

The phonological word consists of a root or stem plus grammatical suffixes and clitics that are attached to it. Within this domain, downdrift (or automatic downstep) applies: high tones after a low or falling tone are automatically realized on a lower pitch than any preceding high tones. For example, the phonetic realization of low and high tones in **hánàkí** 'sit (PL)' results in a High-Low-Mid pitch contour.

Non-automatic downstep in the phonological word is rare, but may occur in polymorphemic words due to vowel coalescence or when a morpheme has a floating low tone, e.g.:

||'éésú'k'w'ésí
 ||'éé-súkù-é=sí
 pay_brideprice-CAUS2-3O=1SG
 I made him pay bride price.

||héméx'pósí
 ||hémé-x' -pó=sí
 pay-BEN-2SG=1SG
 I paid for you.

In verbless negative clauses, the negation marker =^hts'é (section 5.3.2) is part of the same phonological word as its preceding predicate. The high-toned clitic is realized on a lower pitch than the preceding high tone.

màpín=^hts'é
 maping=NEG2
 It's not a *mapping* tree.

There are no arguments to posit a floating low tone in front of the morpheme. Therefore, the isolated form of the clitic is transcribed with a downstep symbol (◌^h).¹⁹

Downdrift also applies in noun phrases with a noun and modifier(s) (as opposed to possessive constructions, see below). In the following example, the high tones of the noun are realized on a lower pitch than the high pitch of the demonstrative, because of the final low tone on the demonstrative.

hèéw mátó
 [DEM1.m gourd]
 This gourd

Downdrift does not apply in between different constituents. At this level, the high tone of a new constituent is realized on the same pitch level as the initial high tone of the preceding word; or, for some syntactic constructions and prominent elements, on a lower or higher pitch level, respectively.

The following example is a presentational verbless sentence, in which the elements are separate constituents.

hèéw mátó
 [DEM1.m] [gourd]
 This is a gourd.

¹⁹ Note that the same marker codes negation on non-realis verbs and special verbs. However, in these cases it always follows a low-toned subject marker, after which tone lowering cannot be heard.

In this sentence, downdrift is absent: the high tones of the noun are realized on the same pitch level as the high pitch in the Low-High-Low contour of the demonstrative. The absence of downdrift thus marks that there are two constituents (cf. the previous example).

The sentence below consists of a noun and an adjectival verb. The initial high tone of the adjectival verb, **thúnkàsê**, is realized on the same pitch level as the initial high tone of the preceding noun. Again, downdrift between constituents is absent.

ʔálaámù thúnkà-s-ê

[upper_arm] [short-BE-3]

The upper arm is short.

In some syntactic constructions, tone is realized on a lower pitch level than the preceding word or constituent. First, possessive constructions are characterized by tone lowering only:

hèsó 'mántshà

they POSS.food

Their food

mìsíková 'ŋ!ŋ

beehive POSS.mouth

The opening of the beehive

When a possessive construction is used in a clause, the following constituent is realized on the pitch level of the (phrase-initial) possessor. Thus, the downstep is local; it marks the relation between the elements of the possessive construction.

dóró hèwé 'mípándà mìkhé-ì=ts'é

zebra [he POSS.route] leave-3:NR=NEG2

A zebra won't leave his route.

Second, verbs without subject marking are generally realized on a lower pitch than the preceding constituent. This occurs when the subject is a clitic which is attached to a non-subject constituent, but also when a subject with a subject focus marker precedes the verb.

tsí 'ŋ||ókó=sí 'ŋ||ókhò-wá-á

I POSS.child.PL=1SG SV.wash-PL1-3O

I washed my children.

hèsw-áá ŋ||ókó 'ŋ||ókhò-wá-á

she-SFOC child.PL SV.wash-PL1-3O

She washed the children.

Note that the realization of tone on the verb on a lower pitch level is only clear when there is no low tone preceding or following the downstep.

Again, downstep is local: constituents that follow these verbs are not subject to the lowering. In the following example, the high tone in the postpositional phrase is realized on the same pitch height as the initial high tone in the sentence on **tsí**:

tsí [†]ŋ||ókó=sí [†]ŋ||ókhò-wá-á khòó-tà-nà
 I POSS.child.PL=1SG SV.wash-PL1-3O home-in-DIR
 I washed my children at home.

The pitch lowering can be contrasted to verbs that have a subject marker attached to them. In the following examples, the initial high tone on the verb is realized on the same pitch level as the preceding constituent (i.e. the high tone on **tsí**). Note that the position of the realis subject clitic in the first example lends extra prominence to the verb.

tsí [†]ŋ||ókó ŋ||ókhò-wá-á=sí
 I POSS.child.PL wash-PL1-3O=1SG
 I *washed* my children.

tsí [†]ŋ||ókó ŋ||ókhò-wá-à-sí
 I POSS.child.PL wash-PL1-3O-1SG:NR
 I will wash my children.

Third, pitch lowering can occur in between the verbs of multi-verb constructions. Examine the example below, in which the relation between the operator verb and the main verb is coded both by downstep and the verbal linker.

ʔàà nèé-ŋ [†]níʔ=yóóó
 CNJ2.3PL stay:PL-VL VV.go:PL=EXCL
 And they were going/continued going.

The realization of tone on a higher pitch level is related to the marking of information structure. Focused constituents and the exclamatory marker =yóóó are realized on a higher pitch than high tones of adjacent elements. This is marked by the symbol †.

ʔútè [†]bòbá-áá théré ŋ||ókhò
 yesterday Boba-SFOC dish wash
 Yesterday, *Boba* washed dishes.

kóŋgórà?à méé=ì síyé hàà thée méé=ì pù xòxòsé=†yóóó
 axe big=2SG take:SG and tree big=2SG CNJ2.2SG hammer=EXCL
 You take a big axe and a big piece of wood and then you start hammering (for a long time)!

The realization of the exclamatory marker shows expressive prominence: the longer the duration of the vowel and the higher the pitch, the more prominence is expressed by the speaker.

The realization of tone on different pitch levels shows that Sandawe has several tonal registers, following Elderkin (1989) who uses three “word levels” or “keys”. The realization of tone of clitics, words and constituents in these registers is determined by syntactic factors and means of marking information structure. For this study, no detailed investigation has been made of these factors, nor absolute pitch measurements that could establish the number of registers and their extremes.

The realization of tone on a higher or lower pitch level than the preceding element is marked in examples and texts by symbols that denote downstep (†) and, occasionally, upstep (‡).

tíáná-xê-n-tà-nà=sì kàté=sì †ák?ì
 horn-COLL-DEF-in-DIR=1SG amid=1SG SV.get_stuck
 I got stuck in the antlers.

Downstep is not marked when the preceding or following tone is low, which is very common, especially when a verb is preceded by a (realis, optative, or hortative) subject clitic. In these cases, a gloss in brackets is used to label the construction:

tíáná-xê-n-tà-nà=sà kàté=sà †ák?ì
 horn-COLL-DEF-in-DIR=3fSG amid=3fSG (SV.)get_stuck
 She got stuck in the antlers.

?àfà-ŋ ?àlèé
 acacia-DEF (POSS.)branch
 A branch of the acacia

Chapter 3

Nouns and noun phrases

The present chapter deals with Sandawe nouns and noun phrases. The chapter is organised as follows: first, an overview of the structure of noun roots is given. In section 3.2 gender is discussed. Section 3.3 treats the morphological encoding of number, which is marginal for nouns. In section 3.4 nominal derivation is discussed. Section 3.5 discusses definiteness as marked by nominal suffixes. The final section presents a short overview of noun phrases and postpositional phrases.

3.1. The structure of the noun root

The majority of Sandawe noun roots consists of one, two or three syllables. The following description presents an overview of structures of noun roots up to three syllables. It focuses on the common structures for each group and presents some remarkable forms.

3.1.1. Monosyllabic noun roots

Monosyllabic root structures are of the following form: CV, CVV, CVN, and (exceptionally) CV(V)G. CV noun roots are illustrated below. There are no monosyllabic roots that contain a final glottal stop.

!ŋ	lice egg, nit
ŋ ê	bush, shrubs
ts'é	hair on the arms
'â	foul smell
tshô	faeces
!'û	feather

CVV noun roots are illustrated below.

tshí	gums; mushroom, sp.
thèé	tree
ŋ wéé	thorn
!'wáá	pool
tsháá	cooking pot
khòó	household
tshùú	soft edible part of fruits

CVN roots have a final nasal consonant, **ŋ**. Note that there is no phonemically distinctive length contrast in the vowel preceding the nasal consonant. For more information on nasals and vowel length, see section 2.1.

ts'õŋ	rhinoceros
ts'óŋ	tree, sp.
 'óŋ	throat
ʃŋ	mucus
 'ǎŋ	1. well; 2. warthog
!éŋ	rib
tʃ'úŋ	hand

Finally, three monosyllabic nouns have an exceptional kind of noun root structure: CV(V)G. The final consonant of these roots is an approximant, **w** or **y**.²⁰

 ééw	buffalo
 'éw	soil, k.o.
kwáây	shoulder

The forms with a final **w** may be underlying disyllabic forms, which is also suggested by an alternative pronunciation of 'buffalo': **|ééwú**. The noun **kwáây** 'shoulder' is probably related to West Rift Southern Cushitic **kwaahha* (n.sg.f) 'shoulder blade' (Kießling and Mous 2003).

There is one example of a monosyllabic noun root with a long vowel and a final consonant **m**.

 wêém	tree, sp.
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3.1.2. Disyllabic noun roots

All Sandawe vowel types appear in disyllabic roots: short, long, and voiceless.

Short vowels may occur in the first or in the second syllable, or in both; long vowels may appear in the first or in the second syllable, but not in both. The examples below illustrate short and long vowels in disyllabic roots: CVCV, CVVCV, CVCVV.

²⁰ Note however that (polymorphemic) forms with a syllable-final approximant are not exceptional in Sandawe. Compare for example the demonstrative **hèéw** 'this (m.)' and constituents with a 2 SG realis or 3 non-realís clitic **-y**, e.g. **khwàà-y** '1. you returned; 2. he will return'.

gìtí'é	cloth, clothing
sákhà	carrying pole
ts'òóts'í	hunger
!áákhò	raised, open place
?àlèé	cactus
ts'íròó	top of tree

Voiceless vowels in disyllabic roots (**i** and **u**) appear in root-final position, as illustrated below: CVCV̥; CVVCV̥.

nán̥	side dish, vegetable
tí'ík̥	morning
!húk̥	umbilical cord
báár̥	rainy season
ts'áák̥	at home ²¹

Most disyllabic roots which contain a closed syllable have nasal consonants in the coda: CVNCV(V), CVCVN.²² Nasal consonants assimilate their place of articulation to a following consonant. Final nasal consonants are velar: **ŋ**.

!'ámá	spleen
kùŋgí	fishing basket
ts'áŋk'è	guinea fowl
tìàŋkáá	partridge
tí'òmbéé	bird, sp.
kòlǒŋ	hoe
ŋ íníŋ	maize
!'ákáŋ	tooth
ŋ ówáŋ	star

²¹ The vowel in this example is part of a frozen suffix **-k̥**, cf. **ts'áánà** '(towards) home'. **ts'áá** is a bound form, it cannot appear without either **-k̥**, or the postposition **-nà**.

²² Vowels preceding nasal consonants have a longer duration than short oral vowels elsewhere. However, there is no contrastive vowel length distinction before nasal consonants, see 2.1.

In a few disyllabic noun roots, a glottal stop occurs as a coda consonant. The glottal stop only appears in this position in the first syllable of the root.

kúʔúnà	gourd
!ʔéʔnáá	warthog
díʔrà	animal, sp.
!áʔlò	sparrow
díʔsèé	old man
tsʔàʔàtá	sterile animal
yàʔàbé	work

There is one example of a disyllabic root with a glottal stop in coda position after a long vowel (CVVCCV):

!ááʔsò	moon
---------------	------

w functions as a coda consonant in only a few disyllabic roots.

ʔémáw	big antelope, sp.
kêwtò	pig

Another coda consonant which occurs rarely, is **r**. Note that both examples are loans.

gwàrtà	he-goat	(cf. West-Rift * gwereta ~* gwereti ‘he-goat’)
márkà	age group	(cf. Swahili rika ‘age group’)

3.1.3. Trisyllabic noun roots

This section presents examples of noun roots which contain three syllables. The most common structures are: CVCVCV, CVCVCV_o, CVCV(N)CVV, CV(N)CV(N)CV.

The following set of examples contains nouns of the form CVCVCV. All have short final vowels:

tétérà	seed
súkʔútó	calf
kìtìbá	cooking pot, k.o.

Alternatively, the final vowel of three-syllable noun roots may be voiceless (CVCVCV_o):

kàkúrù	calabash
---------------	----------

Long vowels in three-syllable noun roots occur in root-final position:
CVCV(N)CVV:

mòpókáá	potato
góxómbéé	shaft of arrow
bègèràá	large gourd

Nasal coda consonants appear in the first or second syllable of three-syllable noun roots, CVNCVCV and CVCVNCV:

k'úŋk'úra	dust
ḥumbúru	vegetable, k.o.
mèkéntó	spoon, used to stir mash
wàròŋgò	ancestral spirit, soul

A glottal stop in the coda position of the final syllable is possible, but very rare.

kóŋgóràʔà	axe
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The final example of a noun root with three syllables deviates from the previous root structures: it has a rare coda consonant **r** in the first syllable:

!wárkáká	molar, jaw ²³
-----------------	--------------------------

3.2. Gender

Sandawe distinguishes between masculine and feminine gender for singular number. Most morphological gender marking is found on subject clitics (section 5.1), conjunctions (sections 7.2, 7.4, and 7.5) and dependent elements, such as demonstratives and deictic elements (sections 4.2 and 4.3).

There is no regular, overt gender marking on the noun, although some feminine nouns contain frozen elements in which a gender marker **-sù** or **-sù** can be recognized (cf. 3fSG pronominal forms in section 4.4). The examples below are human nouns, except for 'sun'.

ḥisù	sister (of males) (f.)
ŋ úmsù	wife (f.)
thámètshù	woman (f.)
thóʔótshù	sister (of females) (f.)
ŋ ókótsú	girl (f.)

²³ One consultant provided an alternative pronunciation **!wárákáká**, in which the consonant **r** occurs in the syllable onset and is followed by an additional vowel **a**.

ŋ èmé sù	female person (f.)	(cf. ŋ èmé sé male person (m.); ŋ òm ó sò people (PL))
 'ákásù	sun (f.)	

Overt gender marking on nominal heads is restricted to definite feminine nouns, feminine agent nouns, and nouns denoting human(s) that are part of a certain group or category. As will be described in section 3.5, definite nouns have a definiteness marker at the end of the noun. Feminine definite nouns add to this marker the suffix **-sù**, which can be considered a gender marker. The following examples illustrate this.

ŋ|úmsù-n-sù sàà ?òòwéi nù-ŋ k'ée
 wife-DEF-f CNJ2.3fSG scream CNJ-CL cry
 And the wife screamed and cried.

!'òròrò -n-sw=à |áŋ
 frog-DEF-f=3 see
 He saw the frog.

Agent nouns are deverbal nouns that are characterized by the agent suffix **-ŋ** (section 3.4.3). Feminine agent nouns contain an additional gender marker **-sù** after the agent suffix, as illustrated below. Note that masculine agent nouns have no overt morphological gender marking.

nówé-ŷ	nówé-ŷ-sù	<	nówé
grind-AG	grind-AG-f		grind
grinder (m.)	grinder (f.)		

Nouns that denote individuals of a certain group or category of humans, contain a gender marker **-é** (masculine) or **-sù** (feminine). Without these markers, the nouns denote a plural entity. For a further discussion of these forms and gender and number markers see section 3.3.

<i>masculine nouns</i>		<i>feminine nouns</i>	
dí?isè-é	old man	dí?isé-sù	old woman
sàndàwè-é	Sandawe (m.)	sàndàwé-sù	Sandawe (f.)
gwàbè-é	Maasai (m.)	gwàbé-sù	Maasai (f.)
búróngè-é	Burunge (m.)	búróngè-sù	Burunge (f.)
thàthùrè-é	Datooga (m.)	thàthùrù-sù	Datooga (f.)
wàgìnè-é	guest (m.)	wàgìnì-sù	guest (f.)
wàgè-é	stranger, non-Sandawe man	wàgó-sù	stranger, non-Sandawe woman

Gender assignment differs for human nouns and non-human animate and inanimate nouns. Human nouns display a natural gender system, in which the sex of the person determines its gender. Compare the examples below and note the example for ‘elder sibling’. Depending on the sex of the person, the gender of the noun is masculine or feminine.

<i>masculine nouns</i>		<i>feminine nouns</i>	
tàtá	father	ʔiyóó	mother
kòkó	grandfather	mámá	grandmother
yàyá	elder brother	yàyá	elder sister

Gender assignment to non-human animate nouns is unpredictable. Several generic terms for animals have either masculine or feminine gender, regardless of the sex of the animal.

<i>masculine nouns</i>		<i>feminine nouns</i>	
ʔàá	goat	ts’òŋ	rhinoceros
 hàtsú	lion	dàk’wèé	donkey

Moreover, gender marking on dependent elements and subject clitics referring to non-human animate nouns shows that sometimes the same non-human animate may be referred to by masculine and feminine gender within the same text.

This is illustrated by the following two sentences. Both are taken from the same story and refer to the same non-human animate, an eland. In the first sentence all elements referring to the eland have masculine gender (the coordinating conjunctions, the demonstrative and the pronoun). In the second sentence, the definiteness marker, conjunction and subject clitic, which refer to the eland, have feminine gender.

pàà **hèéw** **!wàʔâ-ŋ** **pàà** **hèwé** **ŋ||úmé** **gafla**
 CNJ2.3 DEM1.m eland-DEF CNJ2.3 he stand_upright:SG suddenly
 This eland (m.) suddenly stands still.

!wàʔâ-n-sù-siʔi **sàà** **||ó-ʔò=sà** **||’áʔà**
 eland-DEF-f-??? CNJ2.3fSG over_there-LOC=3fSG be_blocked
 As for the eland (f.), it remains there.

In a few suppletive forms, gender assignment to non-human animates reflects natural gender, as the examples below illustrate.

<i>masculine nouns</i>		<i>feminine nouns</i>	
kòŋkóŋ	rooster	kókó	chicken
k’ámbà	bull	hùmbù	cow

Gender assignment to inanimate nouns is largely unpredictable, but some generalizations can be made for three semantic domains:

- a) body part terminology
- b) botanical terminology
- c) technical terminology

a) All nouns for body parts have masculine gender, as illustrated below.

tʃ'úŋ	hand (m.)
dzìphá	upper leg (m.)
tsèé	head (m.)
 'ínà	breast (m.)
!'ákáŋ	tooth (m.)
ŋ!úŋ	mouth (m.)

b) In botanical terminology, both feminine and masculine nouns are found. Sandawe speakers pointed out that masculine nouns in this domain describe tall, massive trees, while the class of feminine nouns contains smaller trees, shrubs and flowers. Compare the examples below:

<i>masculine nouns</i>		<i>feminine nouns</i>	
dégérà	tree, sp. (Sw. <i>mtunduru</i>)	gèlègélá	tree, sp.
gélé	baobab	k'ats'awá	tree, sp.
?àfà	acacia, sp.	ʃùbúbú	plant, sp.
!wèéyà	African teak	?án húmà	tree, sp.
 hwàá	tree, sp. (Sw. <i>suna</i>)	 ígídà	shrub, sp.

Trees and plants are commonly used as proper names. Traditionally, naming takes place when the mother takes the newly born outside and buries the umbilical cord at the roots of a certain tree or plant. The baby is then named after this tree/plant. Feminine botanical terms are used for female proper names, while masculine terms are used for male proper names.

<i>masculine nouns</i>		<i>feminine nouns</i>	
gélé	Gele (m.)	k'ats'awá	K'ats'awa (f.)
?àfà	Afa (m.)	 ígídà	igida (f.)

c) Technical terms and vocabulary items for machineries that were technological innovations for the Sandawe have feminine gender. Nouns in this domain are mainly borrowed from Swahili:

phìkìphìkì	motor cycle (f.)	(< Sw. <i>pikipiki</i>)
tshèrèhànì	sewing machine (f.)	(< Sw. <i>cherehani</i>)

dégè	airplane (f.)	(< Sw. <i>ndege</i> ‘bird; airplane’)
gárì	car (f.)	(< Sw. <i>gari</i>)
tèrèṅì	train (f.)	(< Sw. <i>tereni</i>)
[màʃínè]	(grinding) machine (f.)	(<Sw. <i>mashine</i>)
[réḍiyò]	radio (f.)	(<Sw. <i>rediyò</i>)

3.3. Number

In Sandawe most of the encoding of number takes place on subject clitics (section 5.1) and in the verbal paradigm, where plural number of participants is expressed morphologically (see section 6.4). This section deals exclusively with number marking on nouns.

Most nouns have no regular morphological encoding of number. However, there are three classes of nouns referring to humans in which number is expressed by some morphological encoding on the noun as well: first, a few human nouns with irregular plural marking, and second, agent nouns that are derived from verbs. A third class of human nouns consists of plural noun roots. Moreover, all definite plural nouns referring to humans contain an obligatory plural marker **-sò**, which follows the definiteness marker.

A few human nouns have irregular plural forms. The examples below illustrate the singular and plural forms. Note that the two feminine nouns have a singular form in which the frozen gender marker **-sù** can be recognized (section 3.2). **ṅ||ókó** ‘children’ is the only noun containing a plural marker **-ko**.²⁴ The marker **-sò** in **ṅ|òmósò** ‘people’ is a common plural marker for human nouns with overt number marking, but note the irregular vowel change in the noun root.

<i>singular</i>	<i>plural</i>	
thámètshù	thámètshì ²⁵	women
ṅ ókótshú	ṅ ókótshí	girls
ṅ òó	ṅ ókó	children
ṅ èmésé, ṅ èmésù	ṅ òmósò	people

²⁴ The only other instances of **-ko** have been noticed in **ṅ||ákòsò** ‘certain people’ and **hó-kó-(x-)** ‘who (pl.)?’. In **ṅ||ákòsò** the marker is part of the following paradigm: **ṅ||á-ṅ, ṅ||á-n-sù, ṅ||á-kò-sò** ‘certain (m., f., pl.)’. Its function as a plural marker appears to be doubled by the plural marker **-sò** at the end of the word. In the question word **hó-kó-x-** the plural marker is followed by the collective marker **-x**.

²⁵ An alternative pronunciation has been recorded once: **thámèsì**.

Derived agent nouns have regular morphological encoding of number for plural forms. Plural agent nouns always contain a plural marker. There are two types of number marking for this kind of nouns (with no difference in meaning):

- The plural marker **-sò**, which is added at the end of the agent noun after the derivational element **-̀**.
- The verbal plural marker **-wá**, which is added to the verb root. The plural agent noun, which is derived from the plural verb stem, consists of the verb root, the plural marker and the derivational element **-̀**.

The examples below illustrate the paradigm of derived agent nouns: masculine singular, feminine singular and the two plural forms.

<i>singular agent nouns</i>		<i>plural agent nouns</i>		
<i>(m.)</i>	<i>(f.)</i>			
nówé-̀y	nówé-̀y-s̀	nówé-̀y-sò , nówé-wá-̀y		grinder (m., f.); grinders (PL)
!`iné-̀y	!`iné-̀y-s̀	!`iné-̀y-sò , !`iné-wá-̀y		hunter (m., f.); hunters (PL)
thímé-̀y	thímé-̀y-s̀	thímé-̀y-sò , thímé-wá-̀y		cook (m., f.); cooks (PL)

The third group of human nouns with number marking contains nouns that describe members of a group or category of humans. When used without a suffix, the noun root denotes a plural entity. The noun root can also be used as the basis for further number and gender marking. Singular nouns from this group contain a gender marker (section 3.2). Plural number can be marked explicitly by the plural marker **-sò**. The examples below show both the noun root, the plural and the corresponding singular forms.

<i>root</i>	<i>plural</i>		<i>singular</i>	
			<i>(m.)</i>	<i>(f.)</i>
búruṅgè	búruṅgé-sò	Burunge	búruṅgè-é	búruṅgè-sù
gwàbé	gwàbé-sò	Maasai	gwàbè-é	gwàbé-sù
phólànṭhì	phólànṭhì-sò	Polish, Dutch ²⁶	phólànṭhì-yèé	phólànṭhì-sù
sàndàwé	sàndàwé-sò	Sandawe	sàndàwè-é	sàndàwé-sù
thàthùrù	thàthùrù-sò	Datooga	thàthùrè-é	thàthùrù-sù
	tswèé-sò	Nyaturu	tswèésè-é	tswèésù-sù
wààgógò	wààgógò-sò	Gogo	wààgógè-é	wààgógò-sù
wàgìṅì	wàgìṅì-sò	guests	wàgìṅè-é	wàgìṅì-sù
wàgó	wàgó-sò	strangers, non- Sandawe	wàgè-é	wàgó-sù
wàkìṅógò	wàkìṅógò-sò	Sukuma, Nyamwezi	wàkìṅógè-é	wàkìṅógò-sù
wàlàngí	wàlàngí-sò	Rangi	wàlàngí-yèé	wàlàngí-sù
wàràbù	wàràbù-sò	Arabs	wàràbù-yèé	wàràbù-sù
ʔiràmbà	ʔiràmbà-sò	Nyiramba	ʔiràmbà-yèé	ʔiràmbà-sù

All definite plural human nouns contain a marker (section 3.5), which consists of the definiteness marker ̀n and the plural marker -sò . Note that the plural marker is suffixed obligatorily to the definiteness marker with these nouns, even if the plural noun itself contains a fossilized plural marker.

hèésò ṅ|òṃósò-n-sò ɪàʔàtá=ʔà

DEM1.PL person.PL-DEF-PL die:PL=3PL

These people have died.

Overt number marking on nominal heads is restricted to the above groups of human nouns. For nouns in these groups morphological number marking often coincides with overt gender marking on singular counterparts. The origin of the nominal gender and number markers is probably related to suffixes that encode person, gender, and number features in the verbal domain (e.g. the non-realis series of subject clitics; see section 4.4 for an overview of the morphology of pronominal forms). Compare also the following use of person/gender/number suffixes on the root **sàndàwé**:

²⁶ Polish were among the first missionaries in Kondo. The noun has also been used to denote Dutch, probably because people have confused Swahili *-holanzi* ‘Dutch’ with *-polanzi* ‘Polish’.

sàndàwé-sì	I am (a) Sandawe
sàndàwé-pò	you are (a) Sandawe
sàndàwè-é	he is (a) Sandawe
sàndàwé-sù	she is (a) Sandawe
sàndàwé-sùŋ	we are Sandawe
sàndàwé-sìŋ	you (PL) are Sandawe
sàndàwé-sò	they are Sandawe

3.4. Derivation

The following sections treat five types of nominal derivation. First, collective nouns are described. Sections 3.4.2 and 3.4.3 treat deverbal nouns and agent nouns. Language names and place names are dealt with in sections 3.4.4 and 3.4.5, respectively.

3.4.1. Collective nouns

A collective noun is formed by adding the collective suffix $-x̣$. The suffix consists of the consonant x and a floating low tone, which determines the tone of any following toneless elements. The collective marker is rarely the final element of the noun. Usually, the collective suffix is followed by the definiteness marker (resulting in $-x̣eŋ$), the (toneless) topic marker $-ki$ and/or the (toneless) nominative marker $-aa$, or a subject clitic.

The collective suffix is used in different environments and may have slightly different meanings accordingly. The current section discusses the following forms of collective marking:

- collective marking on human nouns (on top of optional plurality marking)
- collective marking on definite non-human and inanimate nouns
- collective marking on proper names (associative plural)
- collective marking in additional sequences ('also')

Note that collectivity is also marked morphologically on pronominal elements such as independent personal pronouns, demonstratives, and question words. However, it does not form its own category of number elsewhere, as shown by corresponding verbal forms and subject clitics: for those parts of speech, collectivity is not marked, and either singular or plural verb forms and clitics are used with collective nouns and pronouns.

Collective human nouns denote groups of people. The meaning of collective nouns focuses on the group of humans and their common features, rather than on the individual members of the group. The examples below show that the collective

marker can be suffixed to noun roots with or without a gender marker, or a plural suffix.

màríndò-x	group of teachers	<	màríndò
k'arèé-x	group of young males	<	k'arèé
k'aré-sù-x	group of young females	<	k'aré-sù
ŋ ó-kó-x	group of children	<	ŋ ó-kó < ŋ dó

As shown in the following example, the collective subject 'group of teachers' corresponds to a 3PL subject clitic, which is in this case attached to the postpositional phrase.

màríndò-x-àà |'ósánkí |'ònd-tà=?à
 teacher-COLL-SFOC rest shade-in=3PL
 The group of teachers rests in the shade.

For non-human nouns, which never carry an explicit nominal plural marker, the collective marker is the only means to code non-singularity on the noun. Again the focus of the collective is on the group or set rather than on its members. As shown in the following examples, collective nouns may or may not co-occur with plural marking elsewhere in the sentence. In the first example there is no plural marking for the object, for example in the verb. In the second example however, the collective subject has a plural verb stem.

nì-ŋ phútt'úmà sáyò-xê-ŋg=à?à **tóó**
 CNJ-CL peace (POSS.)conversation-COLL-DEF=3PL finish
 And they finished the formal talks (set of greetings).

gélé thèé-xê-ŋ **là?àtá=à**
 baobab (POSS.)tree-COLL-DEF die:PL=3
 The baobabs have died.

Collective marking on non-human nouns always co-occurs with the marking of definiteness. In other words, indefinite collective non-human nouns are not overtly morphologically marked (see also section 3.5 on definiteness).

When the collective suffix is used with a proper name, the collective noun denotes the associative plural, i.e. the group of people associated with the person.

k'ats'awá-x K'ats'awa and the ones **<** **k'ats'awá**
 around her, her family

gélé-x-àà **là?àté**
 Gele-COLL-SFOC die:PL
 Gele *cum suis* have died.

A special construction with an associative plural is formed when the associative plural is used as part of the sentence subject, see the example below. The associative plural **màtũndà-x** ‘Matuunda *cum suis*’ is followed by the independent personal pronoun **sũŋ** ‘we’, which corresponds to the subject clitic =ò.

Ƴixĩ=gò=ò màtũndà-x-sũŋ nèé-wà
 thus=CONF=1PL Matuunda-COLL-we stay:PL-PL2
 This is how we live with Matuunda.

The same construction may be formed with a personal pronoun instead of a noun:

hèwé-x-’sũŋg-áá ɲ|átí
 he-COLL-we-SFOC come:PL
 We (incl. him) came.

Finally, the collective suffix is used in additional sequences. It is most easily translated as ‘also’ or ‘as well’. An additional sequence is characterized by the collective marker and the topic marker **-ki**.

The following example of an additional sequence consists of two sentences. In the first sentence, the actors (Cat and Mouse) cut a trough in shape. In the second sentence, the narrator describes an additional instance of the same action: the actors also cut the trees in shape.

ʔàà !’ámé màlám̀b̀ò-ŋ
 CNJ2.3PL shape.IT big_trough-DEF
 And they cut the trough in shape.

thèé-xê-ŋ-k=àʔà !’á-ʔáwá-á
 tree-COLL-DEF-TOP=3PL shape-PL1-3O
 And they also cut the trees in shape.

Another example of an additional sequence is given below. The sentence is part of a text on the relation between humans and God, angels and spirits. The narrator describes that if we, humans, do good things, we will receive good things by angels and, additionally, ancestral spirits.

híy-ò ɬáá-ʔáwá=yò ɲ|wéé=ɪʔi
 SUB:CNJ-1PL good-PL=1PL do=SUB
 If we do good things,

ʔàà lés’imà-x wàròŋgò-x-kí ɬáá-ʔáwá=ʔà ɲ|átí-wà-ká-á-x-’sũŋ
 CNJ2.3PL angel-COLL spirit-COLL-TOP good-PL=3PL come:PL2-PL-COM-3O-BEN-1PL
 angels and ancestral spirits also bring us good things,

pòdò phútt'úmà kàté=yò nèé
 CNJ2.1PL peace (POSS.)amid=1PL stay:PL
 and we live in peace.

3.4.2. Deverbal nouns

Sandawe has several types of deverbal nouns. Two types are described here: the infinitive and the deverbal noun as marked by **-ó**. At the end of the section, three other types are introduced only briefly, as the exact distribution and meaning of these forms are not yet clear.

The first type of deverbal nouns is formed by suffixing **-?òŋ** to the verb root or verb stem. This deverbal noun is the citation form of the verb and can be derived from any regular verb root. All deverbal nouns of this type have masculine gender.

síyé-?òŋ	<	síyé	to take, taking
mântshà-?òŋ	<	mântshà	to eat, eating
!'òó-kí-?òŋ	<	!'òó-kí	to meet each other, meeting

The suffix **-?òŋ** is glossed **INF** (infinitive). In natural texts this type of deverbal nouns occurs only rarely. Two examples are given below.

pàà k'ée-?òŋ-ts'=à khé?é
 CNJ2.3 cry-INF-LOC=3 hear
 He heard the crying.

wàròŋgèé súŋ-mèé 'bô-?òŋ ŋ|wéé-?òŋ-tà=à màná-ts'í
 God we-sake POSS.say-INF do-INF-in=3 know-MID1
 The speaking of God to us is known in deed(s).

The second type of deverbal nouns contains nouns that denote an act. They all have masculine gender. The exact semantics of this type, as compared to the first type of deverbal nouns, is unclear. The occurrence of this type of nouns is more frequent in texts. The deverbal noun is characterized by a final vowel **-ó**, which replaces the original final vowel. The tone pattern of the noun is all high. The examples below illustrate deverbal nouns and the verb root or stem from which they are derived.

fáró	act of lying, lie (n.)	<	fàré	lie
máxó	cleverness	<	màxé	be clever
hónó	(act of) collecting	<	hóná	collect (honey)
phúmphúsó	(act of) offering	<	phùmphù-sé	offer
 'úúwánkó	(act of) dancing	<	 'úú-wánkí	dance with each other

The deverbal marker **-ó** is glossed NMN (nominalization). The following examples illustrate the use of this type of deverbal noun in noun phrases and sentences.

In noun phrases, deverbal nouns may occur as a nominal head, or as a dependent element. Examine the following examples. In the first example, both deverbal nouns are head of the noun phrase. Together, the two phrases form the title of a procedural text.

mìsíkkóó '!'ám-ó hàà tshîŋ hón-ó
 beehive POSS.shape.IT-NMN and honey (POSS.)collect_honey-NMN
 The construction of a beehive and the collecting of honey.

In the examples below, the deverbal nouns are the dependent element of the possessive phrase. When the nominal head of the phrase denotes a human, the dependent deverbal noun expresses a characteristic of the person.

hón-ó 'ŋ!ê-ŋg-àà
 collect_honey-NMN POSS.day-DEF-SFOC
 The day of collecting honey

fár-ó ŋ|òmósò
 lie-NMN (POSS.)person.PL
 Liars

ŋís-ó ŋ|èmésê-ŋ kwà mée ìbéténà hóná-ì
 steal-NMN (POSS.)person.m-DEF OPT.3 NEG:OPT easily collect_honey-3:NR
 The thief should not easily collect honey.

The following examples illustrate occurrences of the deverbal noun in sentences. The following example shows the noun as a direct object of the verb.

láá?è-ŋ máx-ó=à !'dówé
 hare-DEF be_clever-NMN=3 find.3O
 The hare got clever.

A deverbal noun may also occur as a complement of the verbs 'start' and 'refuse', as shown below:

nì-ŋ sìphìtháŋ-nà !ém-ó-ŋ ŋísá=à xaré
 CNJ-CL hospital-LOC accompany-NMN-VL refuse=3 or
 And did he refuse to bring (him) to the hospital, or...?

?àà thòótàkì ts'â-n-tà-nà=?à ?àà púndús-ó=?à bààrà
 CNJ2.3PL jump:PL water-DEF-in-LOC=3PL CNJ2.3PL swim-NMN=3PL start
 So they jumped into the water and they began to swim.

There are three other types of deverbal nouns, for which the exact distribution and meaning are not yet clear:

- nouns characterized by **-ts'í** (NMN2)
- nouns characterized by **-sà** (NMN3)
- nouns characterized by **-tò** (NMN:PAT)

The deverbal marker **-ts'í** (NMN2) can be attached to verb roots or complex verb forms, which results in abstract nouns in the following examples:

mùthùgù-ts'í **màkàá** **tlàkí-ts'í** **títèé-'ts'é**
 be_poor-NMN2 thing (POSS.)be_absent-NMN2 alone=NEG2
 Poverty is not just the absence of wealth.

hèwé **màrà-s-ê-ts'é-ts'í** **ŋ|wéé-gá=à**
 he (POSS.)be_knowledgeable-BE-3=NEG2-NMN2 do=CONF=3
 His lack of knowledge has done it.

The deverbal marker **-sà** (NMN3) often occurs in combination with a postposition in our corpus, e.g. **-sà-nà**; **-sà-mèé** with the meaning ‘with the intention of’, ‘in order to’.

láá?è **pàà** **kòs=à** **thâ** **ŋ|í-ŋ** **ŋ|imì-sà-nà=à**
 hare CNJ2.3 again=3 run:SG meat eat_meat-NMN3-DIR=3
 Hare then ran again with the intention of eating meat.

|'èkhá **héŋ||àkì-ŋ** **tútù-sà-mèé**
 bee enter:PL-VL leave.RED-NMN3-sake
 (For) the bees, in order to enter and leave.

The marker **-tò** (NMN:PAT) derives patient nouns from transitive verbs, e.g. **||wáá-tò** ‘mystery, something hidden’ (< **||wáá** ‘hide’); **hàŋsé-é-tò** ‘something praised’ (< **hàŋsé** ‘praise’). Note however that the marker also occurs in relative constructions:

tshíyà=à **dzàdzàsé-wá-á-tò-ŋ**
 all=3 roast.FACT-PL1-3O-NMN:PAT-DEF
 He (ate) all (the meat) that had been roasted.

3.4.3. Agent nouns

Agent nouns are derived from action verbs and are characterized by the agent suffix $-ì$. For each agent noun there is a paradigm of feminine and masculine singular forms and two plural forms:

Masculine singular agent noun:	V-ì
Feminine singular agent noun:	V-ì-sù
Plural agent noun:	V-ì-sò, V-wá-ì

The masculine singular form consists of the verb root plus the agent suffix. Feminine singular agent nouns are derived from the masculine form by adding the feminine gender marker $-sù$. There are two alternative forms of plural agent nouns: one is formed by adding the (nominal) plural marker $-sò$ to the masculine form; the other form consists of the plural verb stem (with the verbal plural marker $-wá$) and the agent suffix.

The following examples illustrate paradigms of agent nouns.

<i>singular agent nouns</i>		<i>plural agent nouns</i>		
<i>(m.)</i>	<i>(f.)</i>			
fàré-ỳ	fàré-ỳ-sù	fàré-ỳ-sò, fàré-wá-ỳ		liar (m., f.); liars
hàbá-ỳ	hàbá-ỳ-sù	hàbá-ỳ-sò, hàbá-wá-ỳ		parent (m., f.); parents
nówé-ỳ	nówé-ỳ-sù	nówé-ỳ-sò, nówé-wá-ỳ		grinder (m., f.); grinders
thímé-ỳ	thímé-ỳ-sù	thímé-ỳ-sò, thímé-wá-ỳ		cook (m., f.); cooks
thìné-ỳ	thìné-ỳ-sù	thìné-ỳ-sò, thìné-wá-ỳ		sewer (m., f.); sewers
xwànté-ỳ	xwànté-ỳ-sù	xwànté-ỳ-sò, xwànté-wá-ỳ		stirrer (m., f.); stirrers (of mash)
!^né-ỳ	!^né-ỳ-sù	!^né-ỳ-sò, !^né-wá-ỳ		hunter (m., f.); hunters
η!àmé-ỳ		η!àmé-ỳ-sò, η!àmé-wá-ỳ		blacksmith (m.), blacksmiths

3.4.4. Language names

Language names are derived from noun roots that denote the ethnic group. The derivational suffix which marks language names is $-kìʔη$. Its tone pattern is all low, except when it is preceded by a root with low tones only. In the latter case, the first tone of the suffix is high, e.g. $thàthùrù-kìʔη$, $?ràmbà-kìʔη$. The language name Sandawe has two variants: $sàndawé-kìʔη$ and $sàndawí-kìʔη$.

<i>noun root</i>	<i>language name</i>	
sàndàwé	sàndàwé–kìʔiŋ, sàndàwí–kìʔiŋ	Sandawe
thàthùrù	thàthùrù–kìʔiŋ	Datooga
tswèésò	tswèésò–kìʔiŋ	Nyaturu
wààgógò	wààgógò–kìʔiŋ	Gogo
wàgó	wàgó–kìʔiŋ	strangers' language, Swahili
wàkìńńgò	wàkìńńgò–kìʔiŋ	Sukuma, Nyamwezi
wàlàŋgí	wàlàŋgí–kìʔiŋ	Rangi
ʔiràmbà	ʔiràmbà–kìʔiŋ	Nyiramba

3.4.5. Nouns denoting a place and place names

Several Sandawe nouns that denote a place consist of a noun and a suffix **–sê**. The following examples are all names of places in the Usandawe area.

dòdómà–sê	Dodomase (hill in between Kurio and Gumbu)
dòn–sê	Donse (place in between Farka and Dodoma)
mòmbo–sê	Mombose (1. place to the west of Farkwa; 2. place to the north of Farkwa)
thùmàkóó–sê	Thum(b)akose (place to the south-east of Farkwa)
ʔílà–sê	Ilase (place in between Ovada and Kwa Mtoro)
 wèém–sê	weemse (hill in between Kurio and Kwa Mtoro)

The nouns that precede the suffix are mainly botanical terms and terms for natural products, e.g. **dòdómà** ‘tree, sp.’, **mòmbo** ‘calabash’, **thùmàkóó** ‘tobacco’. The place names provide a description of the place, which is based on a remarkable characteristic: a hill with several dodoma trees on it (Dodomase), places where good calabashes can be found (Mombose), a place where tobacco grows (Thum(b)akose), etc.

The origin of the suffix **–sê** is probably the special verb marker **–sí**, followed by the third person (masculine singular) subject marker **–è**. For more information on special verbs and their subject markers, see section 6.7.

3.5. Definiteness

Definiteness is morphologically marked by the suffix $-\grave{\eta}$. The suffix consists of a nasal and a low tone. The place of articulation of the nasal is determined by its following element: the suffix is realized as $-\grave{\eta}$ before velar consonants and before pause; as $-\grave{n}$ before dental and alveolar consonants; as $-\grave{m}$ before labial consonants.

Definiteness is generally marked on the noun. The definite suffix stands after derivational markers, but before the topic and subject focus markers and clitics. In relative clauses, the marker may appear on dependent elements, e.g. on adjectival verbs and verbs. In these cases, the definiteness marker is co-referential with the head noun and functions as a relative marker at the end of the clause. The marker occasionally occurs twice in noun phrases (section 3.6); this has been observed for definite nouns that are followed by the adjective **méé** ‘big’ and the definiteness marker: **méé-η**.

The presence of the definiteness marker requires obligatory gender and number marking on feminine and human plural nouns respectively: definite feminine nouns are obligatorily followed by the feminine gender marker $-s\grave{\eta}$, definite plural human nouns by the plural marker $-s\grave{o}$. Masculine singular nouns have no overt gender marker.

The following examples give definite forms of masculine, feminine, and human plural nouns. Note that the obligatory feminine and plural markers on definite nouns can co-occur with (frozen) gender and number markers in the nominal.

khòô-η	the house (m.)	<	khòó	house (m.)
η èméésê-η	the man (m.)	<	η èméésé	man (m.)
phúmphúsô-η	the offering (m.)	<	phúmphúsó	offering (m.)
!’òròrô-ñ-sù	the frog (f.)	<	!’òròrôη	frog (f.)
η èméésù-ñ-sù	the woman (f.)	<	η èméésù	woman (f.)
sàndàwésò-ñ-sò	the Sandawe (PL)	<	sàndàwésò	Sandawe (PL)
η òmósò-ñ-sò	the people (PL)	<	η òmósò	people (PL)

Masculine nouns which end in a nasal consonant and a low or a falling tone cannot be distinguished from their definite forms. Examples of these forms can be categorized in three groups: first, several nouns referring to body parts and related terms have a final nasal (e.g. **tí’úη** ‘hand’, **||’òη** ‘throat’, **!èη** ‘rib’, **fiη** ‘mucus’).

Further, all language names (e.g. **sàndawé-kìŋη** ‘Sandawe’), and infinitives (e.g. **màntshà-?òη** ‘to eat’) have a final nasal consonant. The nasal is part of the derivational suffix. One analysis is to consider the nasal as an inherent definiteness marker for infinitives and language names.

The definiteness marker on collective nouns follows the collective suffix $-x̣$, which results in $-x̣ɛŋ$. Collective nouns (as marked by the derivational suffix $-x̣$) show differences with respect to the marking of definiteness.

Collective nouns which denote non-humans are always definite.

 'èkhá-x̣ɛŋ	the group of bees (coll.)	<	 'èkhá	bee, (group of) bees
sáyò-x̣ɛŋ	the conversations (coll.)	<	sáyò	conversation(s)

Collective nouns denoting humans never occur with a definiteness marker.

The following table shows definiteness marking on nouns in definite and indefinite contexts:

	indefinite context	definite contexts
$N_{\text{non-human specific}}$	N	N-DEF
$N_{\text{human specific}}$	N	N-DEF
$N_{\text{non-human collective}}$	N	N-COLL-DEF
$N_{\text{human collective}}$	N-COLL	N-COLL

Note that there is no distinct form for a collective noun which denotes non-humans in indefinite contexts and that the collective marker is the only way of encoding non-singularity on the noun. However, in such cases number is usually marked on the verb. Thus, plural or collective indefinite non-humans may be expressed by the same noun that denotes a singular non-human; in order to signal the number of non-human participants, the verb carries a plural marker.

indefinite	gìtí'è-ŋg-àà	lǎn-ts'ɿ
	cloth-DEF-SFOC	tear-MID2
	Cloth has been torn	
definite collective	gìtí'é-x̣ɛ-ŋg-àà	lǎnlá-ts'ɿ-wà
	cloth-COLL-DEF-SFOC	tear:RED-MID2-PL2
	The clothes have been torn	
indefinite plural/coll.	gìtí'-áá	lǎnlá-ts'ɿ-wà
	cloth-SFOC	(SV.)tear:RED-MID2-PL2
	Clothes have been torn	

The following examples show the use of the definiteness marker when modifiers are used as nominal heads. An additional gender marker (here: $-yé$ or $-sú$) is added before the definiteness marker.

phê-yê-ŋ	the next day (m.)	<	phê	tomorrow
tê-ŋ	the other one (m.)	<	tê	another

úkù-yê-ŋ	the lower one (m.)	<	úkù	under
'áŋkì-yê-ŋ	the upper one (m.)	<	'áŋkì	up, above
kísòx-sù-n-sù	the second one (f.)	<	kísòxì	two

Definite nouns refer to known entities, i.e. when an entity was introduced earlier in the conversation or when an entity is known by the participants in the dialogue. The following text sample demonstrates the definite noun **búrì-ŋ** ‘the mouse’ in the final line. The definite noun is used after the first introduction of the entity (mouse, indefinite) into the story in the first line.

ʔútwa lóóólò, nǎŋ'gwé hàà búrì-kì-àà
 long_ago INT cat and mouse-TOP-SFOC
 A very long time ago, a cat and a mouse

!'úmá ts'òntó bègèràá !'wàá mééé kàté=?à
 earth small big_calabash pool big.ATT amid=3PL
 lived in a small world, a huge calabash, in the middle of a huge pool,

ʔúrì-ŋ ŋ!ê dèé'théé=?à nèé
 very-VL day many=3PL stay:PL
 for very many days.

ʔàà ʔ'úrà=?à-ŋ màámá-ŋkí
 CNJ2.3PL very=3PL-VL be_friends-REC
 And they had a strong friendship.

pàà búrì-ŋg-àà ká?á sàibà ...
 CNJ2.3 mouse-DEF-SFOC that friend
 And the mouse said: “My friend, ...”

In noun phrases with a demonstrative and a noun, the definiteness marker is used when the noun follows the demonstrative. The marker is never used when the demonstrative follows the noun.

hàáw ŋ|èméé-ŋ
 DEM2.m man-DEF
 That man

ŋ|èméé hàáw
 man DEM2.m
 That man

The two constructions have different meanings. Phrases with an initial demonstrative and a definiteness marker are pragmatically marked and express

either contrastive focus or specificity: ‘No, not this man, *that one*’ or ‘*That man* (out of the group)’.

3.6. Noun phrases and postpositional phrases

The following sections deal with Sandawe noun phrases and postpositional phrases. The general structure of these phrases is outlined below. Sub-sections 3.6.1 to 3.6.3 illustrate noun phrases with modifiers, possessive constructions, and postpositional phrases, respectively.

Sandawe word order is relatively free, but several generalizations can be made about the order of constituents in the noun phrase. On the one hand, head-final constituent order is found in possessive constructions (possessor-possessed) and in postpositional phrases, where the postposition is attached after the noun phrase. On the other hand, most modifiers follow the noun: this is for example the case with numerals and relative clauses. Demonstrative phrases with nouns have two alternative constituent orders: noun-demonstrative and demonstrative-definite noun.

Topic and focus markers

Noun phrases may be accompanied by topic and/or focus particles, which are attached to the end of the phrase. The examples below illustrate the topic marker **-ki** (TOP) and the subject focus marker **-aa** (SFOC), respectively.

thèé-xê-ŋ-k=à?à **!’á-?áwá-á**
 tree-COLL-DEF-TOP=3PL shape-PL1-3O
 As for the trees, they cut them in shape.

pàà **hèsó màlámò-ŋg-àà** **?úráá** **?íthà-nà** **hík’?**
 CNJ2.3 they (POSS.)big_trough-DEF-SFOC very far-DIR go:SG
 And *their trough* went very far.

Note that the combination of the topic and subject focus marker in one phrase is common in Sandawe:

hàdísì-ŋ-kì-àà **?ó-?=à** **tshèékì**
 story-DEF-TOP-SFOC here-LOC=3 finish
 As for the story, it ends here.

Another topic marker which can be attached (among others) to nouns and noun phrases is the clitic **=si?i** (TOP2).

ŋŋ-ŋ kóó-s-ê, tsèè-n=sìŋ tshèé
 meat-DEF be_present:SG-BE-3 head-DEF=TOP2 not_be:3
 The body is here, but the head is not.

The exact function of this clitic needs to be investigated further, as it may also be used in presentational sentences:

|ŋn=sìŋ
 snake=TOP2
 It's a snake!

Further, the noun phrase may be accompanied by one or more sentence clitics. Although these markers have scope over a domain which is larger than the noun phrase, they belong to the same phonological domain as their host. The set of sentence clitics contains mediative markers (=gá, =gé, and =nè; section 5.4), the question marker =ná (section 5.5), and realis, optative, and hortative subject/modality markers (section 5.1). The subject/modality clitic marks the sentence subject and is not coreferential with the noun or phrase to which it is attached.

thèé méé-n-tà-nà=sà kê
 tree big-DEF-in-DIR=3fSG climb
 She climbs into the big tree.

3.6.1. Noun phrases

Generally, modifiers follow the noun. In simple modified noun phrases, nouns can be modified by adjectives, adjectival verbs (in a small relative clause), qualifiers, demonstratives and other deictic elements (sections 4.2 and 4.3), question words (section 8.1), and numerals (see below). Compare the following examples:

mùhógò mééé=?ò tí'á'kw-é
 cassava big.EXCL=1PL:OPT dig_out-3O
 Let's dig out a huge cassava! (Noun Adjective=subj/mod)

hèsó 'mântshà bà?á-s-é-ŋ ŋŋŋ,
 they POSS.food big-BE-3-DEF.ATT meat
 Their major food was meat (Pronoun Noun Adjectival verb)

ŋ|òmósò hísôn-sò ?àà kékè, hísôn-sò ?àà ||'àkímé
 person.PL other-PL CNJ2.3PL ascend.RED other-PL CNJ2.3PL descend.IT
 Some people got on, others got off (the train). (Noun Qualifier)

pì-ná háp-áá |ân-x-¹sún ŋ||òó hèéw
 CNJ2.2SG-FOC you-SFOC see-BEN-1PL child DEM1.m
 And then you see this child for us. (Noun Demonstrative)

hùmbù kísòx-àà |útshúkù-wà
 cow two-SFOC pass-PL2
 Two cows passed. (Noun Numeral-subj focus)

Modifiers that precede the noun are pragmatically marked, for example a demonstrative or question word.

sàà hèésù ŋ||òó-n-sù hèsú-kí-áá ||'ákí
 CNJ2.3fSG DEM1.f child-DEF-f she-TOP-SFOC (SV.)descend
 And as for this child, she descends as well. (Demonstrative Noun)

hàwêŋ kitabu
 which_one?.m book
 Which book? (Question word Noun)

A complex nominal phrase is formed when a noun phrase or postpositional phrase is incorporated into a larger phrase. This type of phrase is characterized by a collective suffix or a gender/number marker after the incorporated noun phrase and a definiteness marker at the end of the larger phrase. The examples below show incorporation of the noun phrase **tí'ún íááw** 'right (lit. good hand)', as opposed to the single noun **||'ék'anàà** 'left'.

tí'ún íáá-w -yê-ŋ=kò ||'áá
 hand good-m -m-DEF=2SG:OPT follow
 Follow the right one. (Noun Adjective-m-DEF=subj/mod)

||'ék'anàà -yê-ŋ=kò ||'áá
 left -m-DEF=2SG:OPT follow
 Follow the left one. (Noun-m-DEF=subj/mod)

Even postpositional phrases may be incorporated:

tí'ún íáá-w -tè-yê-n=sì màté-é
 hand good-m -area-m-DEF=1SG choose-3O
 I have chosen the one (m.) of the right side. (Noun Adjective-PP-m-DEF=subj/mod)

tí'ún íáá-w -tè-sù-n-sù=sì màté-é
 hand good-m -area-f-DEF-f=1SG choose-3O
 I have chosen the one (f.) of the right side. (Noun Adjective-PP-f-DEF=subj/mod)

ti'ũŋ ɬáá-w̄ -tè-sô-n-sò=sì mǎtè-ŋĩŋ
 hand good-m -area-PL-DEF-PL=1SG choose-3PL
 I have chosen the ones of the right side. (Noun Adjective-PP-PL-DEF=subj/mod)

ti'ũŋ ɬáá-w̄ -tè-xê-n=sì mǎt-ím-á-á
 hand good-m -area-COLL-DEF=1SG choose-IT-PL1-3O
 I have chosen those (collective) of the right side.
 (Noun Adjective-PP-COLL-DEF=subj/mod)

Numerals

The remainder of this section is devoted to the form and position of numerals in the noun phrase. Sandawe numerals show a combination of a quinary and decimal system, as illustrated below. 'One' to 'five' and 'ten' are underived forms. All other numerals are formed by conjoining two or more of the basic numerals.

tséxì	one	
kísòxì	two	
sòmíkìxì ~ swàmíkìxì	three	
hàkàxì	four	
kwà?áná	five	
kwà?áná dǎndà tséxì	six	(five plus one)
kwà?áná dǎndà kísòxì	seven	(five plus two)
kwà?áná dǎndà sòmíkìxì	eight	(five plus three)
kwà?áná dǎndà hàkàxì	nine	(five plus four)
kómì	ten	
kómì dǎndà tséxì	eleven	(ten plus one)
kómì dǎndà kísòxì	twelve	(ten plus two)
kómì dǎndà sòmíkìxì	thirteen	(ten plus three)
kómì dǎndà hàkàxì	fourteen	(ten plus four)
kómì dǎndà kwà?áná	fifteen	(ten plus five)
kómì dǎndà kwà?áná dǎndà tséxì	sixteen	(ten plus five plus one)
kómì dǎndà kwà?áná dǎndà kísòxì	seventeen	(ten plus five plus two)
kómì dǎndà kwà?áná dǎndà sòmíkìxì	eighteen	(ten plus five plus three)
kómì dǎndà kwà?áná dǎndà hàkàxì	nineteen	(ten plus five plus four)
kómì kísòxì	twenty	(ten two)
kómì sòmíkìxì	thirty	(ten three)
kómì hàkàxì	fourty	(ten four)
kómì kwà?áná	fifty	(ten five)
kómì kwà?áná dǎndà kómì tséxì	sixty	(ten five plus ten one)
kómì kwà?áná dǎndà kómì kísòxì	seventy	(ten five plus ten two)

kómì kwà?áná dándà kómì sòmíkì	eighty	(ten five plus ten three)
kómì kwà?áná dándà kómì hàkákì	ninety	(ten five plus ten four)
kómì kómì ~ kómì títèé kómì	hundred	(ten ten; ten times ten)

Complex forms usually contain the conjunction **dándà** ‘next, plus’; for example ‘six’ to ‘nine’; ‘eleven’ to ‘nineteen’. ‘Twenty’, ‘thirty’, ‘fourty’, and ‘fifty’ do not contain a conjunction: the two numerals are juxtaposed as in a possessive construction, e.g. **kómì hàkákì** ‘fourty (ten four)’. The tens ‘sixty’ to ‘ninety’ are composed by conjoining two (compound) tens by **dándà**, e.g. **kómì kwà?áná dándà kómì sòmíkì** ‘seventy (ten five plus ten two)’.

dándà is also used to add ‘one’ to ‘nine’ to tens, e.g.:

kómì kísòxì dándà tséxì	twenty-one	(ten two plus one)
kómì kísòxì dándà kwà?áná dándà tséxì	twenty-six	(ten two plus five plus one)

An alternative construction is formed when a basic numeral (‘one’ to ‘nine’) is added to a compound ten, as exemplified below. The final numeral is attached to the preceding phrase by the linker **-’ŋ** and the coordinating conjunction **hàà**.

kómì kwà?áná dándà kómì kísòxìŋ	seventy-two	(ten five plus ten two
hàà kísòxì		and two)

In noun phrases, numerals follow the noun. The numeral **tséxì** ‘one’ receives a gender marker: **-é** for masculine, and **-sù** for feminine nouns.

ŋ èmé sé ts’é’x-é	One man
mátó ts’é’x-é	One gourd
ŋ èmé sù tséx-sù	One woman
thwí ts’é’x-sù	One bird

When a numeral modifies a (plural) noun that denotes humans, the plural suffix **-sò** is added. Note that the final string **xì** of the numeral is absent here.²⁷

ŋ òmósò kísò-sò	Two people
------------------------	------------

²⁷ The string **xì** in numerals may be related to the collective suffix **-x̣** (see section 3.4.1). Note however that the numeral ‘one’, **tséxì**, also contains this string when it refers to a singular, non-collective referent.

Numerals after nouns that denote plural non-human entities (animate or inanimate) do not have a gender and/or number suffix.

mátó hákáxi=sì màt-ím-á-á
 gourd four=1SG choose-IT-PL1-3O
 I have chosen four gourds.

Ordinal numerals are derived from cardinal numerals by an additional gender marker: **-(y)é** (m) or **-sú** (f). All ordinal numerals in our data are followed by a definiteness marker, as illustrated below. Note that the same derivation is used to form other nouns and complex nominals, e.g. |'áŋkìyêŋ 'the upper one' (section 3.5).

kísòxì-yê-ŋ |'áŋkì-yê-ŋ ?àà hí|'á-wá
 two-m-DEF up-m-DEF CNJ2.3PL tie-PL1
 The second one is the upper one, and they tie them together.

!àá?áàsò kwà?áná dàndà hákáx-sù-n-sù
 moon five plus four-f-DEF-f
 June (lit. the ninth moon (f.))

3.6.2. Possessive constructions

In possessive constructions, the nominal head, which is the possessed element, follows the possessor. The possessor may be a free pronoun or a noun. The possessive construction is characterized by a pitch downstep, which is only audible and marked if no low tone precedes or follows:

!wà?á 'tíáná-xê-ŋ
 eland POSS.horn-COLL-DEF
 The antlers of an eland

hèsú !'òròrò -n-sù
 she (POSS.)frog-DEF-f
 Her frog

There is an alternative possessive construction for free pronoun possessors in which the possessor follows the possessed noun. A possessive suffix **-ŋ**, which probably incorporates the definiteness marker, is attached to the free pronoun in this construction. There is no pitch downstep between the elements:

?àà táné=yóóó málámbò hèsó-ŋ
 CNJ2.3PL pull=EXCL big_trough they-POSS
 And they pulled the big trough of theirs.

The semantics of possessive constructions are wider than strict possession, as exemplified below. There is a dependency relation between the possessor and the possessed element. The possessor may be the holder of the possessed:

tshâŋ mátó
oil (POSS.)gourd
A gourd of/with oil

Other examples show a more abstract dependency relation between the modifier and the head, e.g. in ‘by means of ...’ and in diminutive constructions ‘a small hole (lit. daughter of a hole)’:

hèwé-mèé sún wàròŋgèé-x-sún !’dó-kí-?òŋ móthóómà ||dó-?iŋ
he-sake we God-COLL-we find-REC-INF intermediary (POSS.)way-INSTR
Therefore the meeting of God and us is by means of an intermediary.

!’wâ ŋ||dó-sù
hole (POSS.)child-f
a small hole

3.6.3. Postpositional phrases

Postpositions are attached to the end of the phrase. The following postpositions are discussed here:

-tâ	locative ‘in’	gloss: in
-tè	locative ‘in the area of, near to’	gloss: area
-ts’ŋ	general locative ‘on’	gloss: LOC
-nà	directional ‘to(wards)’	gloss: DIR
-mèé	‘sake, reason’	gloss: sake
-?iŋ	instrumental ‘with, by, using’	gloss: INSTR

Most postpositions express spatial relations. Other spatial relations (e.g. |úkù ‘under’, |ánkù ‘above’, kítà ‘inside’) are expressed by unbound forms in a possessive construction (as marked by downstep). These constructions may also be accompanied by a postposition, e.g. !’wáá ‘dúru-ts’ŋ ‘on the other side of the pool’.

The locative postposition -tâ expresses a location inside the referent. This locative is often combined with the directional postposition -nà, as shown below.

ts’â-tâ=?à pèé nà=?à-ŋ hánákì
water-in=3PL put:SG CNJ=3PL-CL sit_down:PL
They put it in the water and sat down.

The locative -tè is used to denote a vague location in the area of or near to the referent. -tè is often combined with the directional -nà.

kwa mtoro-tè=sì wèré

Kwa_Mtoro-area=1SG stroll

I strolled in Kwa Mtoro (walked around, no exact endpoint).

–tsʔ is a general locative postposition, which denotes the location of the referent.

níʔ=ʔò=yóóó nò=ʔò-ŋ héttʔ

go:PL=1PL:OPT=EXCL CNJ=1PL:OPT-CL over_there

Let's go, and ...

!ʔwáá 'dúru-tsʔ níʔ-ŋ nèé-wà

pool POSS.other_side-LOC go:PL-VL stay:PL-PL2

go live over there on the other side of the water.

kúriyò ŋ|òmósò mséra-ts'=àʔà hàwén

Kurio (POSS.)person.PL Mséra-LOC=3PL fetch_water

The people of Kurio fetched water in Mséra.

Next to denoting a spatial relationship, –tsʔ is also used to mark oblique objects.

pàà wétshá=yóóó ŋ|úmsù-n-sù-ts'=à káʔá tsí wàré-ŋ

CNJ2.3 NARR:INTJ=EXCL wife-DEF-f-LOC=3 that I (POSS.)friend-DEF

Hear! So he said to his wife: “My friend, ...

k'ée-ʔòn-ts'=à khéʔé

cry-INF-LOC=3 hear

He heard the crying.

The postposition –nà denotes a direction towards the referent.

nì-ŋ thòó !'úma-nà=à

CNJ-CL jump earth-DIR=3

And he jumped down (to the ground).

hèèw káákà-ŋ-kì m̀síkóó +'áá-nà=à ʔiyé-ŋ +'èé

DEM1.m dog-DEF-TOP beehive POSS.up-DIR=3 stay:SG-VL look_at

As for this dog, he is looking upwards to the beehive.

The directional postposition is often combined with another, locative, postposition e.g. –tá-nà ‘into’:

ʔòò g̀r̀bè hàáw g̀lé-ŋ m̀éè-n-tà-nà

CNJ2.1PL:OPT run:PL DEM2.m baoab-DEF big-DEF-in-DIR

And then we should run into that big baobab.

sàà ŋ||òò-n-sù !'àwé ts'â-tà-nà=sà
 CNJ2.3fSG child-DEF-f fall:SG water-in-DIR=3fSG
 And the child falls into the water.

When **-nà** is used in combination with the locative postposition **-tè**, the complex is usually preceded by an additional glottal stop, which is assumed to be another locative marker. Our consultants suggested that the glottal stop is a variant of the locative postposition **-tsʔ**.

pàà thâ kìràŋgí-ʔí-tè-nà=à
 CNJ2.3 run:SG rack-LOC-area-DIR=3
 He ran towards the meat rack.

sàà ||ò-ʔò-nà=sà gógó-ʔò-tè-nà=sà híkʔ
 CNJ2.3fSG over_there-LOC-DIR=3fSG log-LOC-area-DIR=3fSG go:SG
 She goes to that place, near to the log.

Note that the glottal stop is also attested after unbound locatives, e.g. **||ò-ʔò-nà** ‘to that place’, and **ʔò-ʔò** ‘here, at this place’.

The postposition **-mèé** denotes a reason or ‘for the sake of’.

xòóxòrì-ŋ kwàà kʔtʔé mòndzó dàá-ʔò-mèé
 crow-DEF CNJ2.3 be_angry jackal (POSS.)cheat-INF-sake
 So the crow was angry because of the cheating by Jackal

The postposition is often used in combination with the personal pronoun **hèwé**: **hèwé-mèé** ‘therefore’ and the question word **hótsò**: **hótsò-mèé** ‘why, for what reason?’.

–ŋɪŋ is an instrumental postposition.

hèsó 'yá?ábô–ŋ ?úrìn–sì?ì !'ín–ó dǵàní–ŋɪŋ
 they POSS.work-DEF very-??? hunt-NMN arrow-INSTR
 Their work was mainly hunting with arrows.

|âŋg–é=sì tsí |'wèé–ŋɪn=sì
 see-3O=1SG I (POSS.)eye-INSTR=1SG
 I have seen it with my own eyes!

hàáw gálàmà–ŋɪŋ=à?à hí|'á
 DEM2.m galama-INSTR=3PL tie
 They tie it with that galama rope.

wétsháná=yóóó pàà thâ–ŋɪŋ=à khwàà
 NARR:INTJ=EXCL CNJ2.3 run:SG-INSTR=3 return
 Hear! And he returned (by) running.

Chapter 4

Pronouns, demonstratives, and other deictic elements

The following sections present the Sandawe pronominal system. A first distinction can be made between free and bound pronominal forms. The group of free pronouns consists of personal pronouns (section 4.1), demonstratives (section 4.2), and other deictic elements (section 4.3). Bound personal pronouns (object suffixes, series of subject clitics, and subject markers on conjunctions) are described in detail in sections 6.3, 5.1, and 7.2, 7.4, 7.5, respectively. In section 4.4, an overview of the morphology of all pronominal forms is provided.

4.1. Free personal pronouns

Table 7 below lists the free personal pronouns. The third person forms show close formal correspondences to demonstrative pronouns (section 4.2), as discussed in section 4.4.

Table 7: Free personal pronouns

Person	Gender	Singular		Plural		Collective
1.		tsí	I	súŋ	we	
2.		hàpú	you	síŋ	you	
3.	m	hèwé	he; it	hèsó	they	hèwé-xé they,
	f	hèsú	she; it			the group of

There are three distinctions for the category person, as indicated in the first column. There are two genders: feminine and masculine. The distinction is only made for third person singular forms. **hèwé** refers to a male animate or to a masculine noun; **hèsú** refers to a female animate or to a feminine noun.

There are two numbers, singular and plural. The plural pronouns are **súŋ** ‘we’, **síŋ** ‘you (PL)’, and **hèsó** ‘they’, which is only used for animate referents (see below). An additional form, **hèwé-xé**, which is the collective free pronoun, is used to refer to collective entities and to non-human, non-singular referents. The pronoun is composed of the third person masculine singular pronoun **hèwé** and the collective formative **-xé** (cf. the collective suffix **-x̣** and the collective definite suffix **-xé-ŋ** on nouns, section 3.4.1).

Whereas the collective marker may be suffixed to nouns denoting both human and non-human referents, the free pronoun with the collective formative is only used to refer to non-human referents.

ʔútáá hí-à hèwé-xé-áá tshèékí-wá-ìʔí
 long_ago SUB:CNJ-3 he-COLL-SFOC finish-PL2=SUB

When long ago these (i.e. tree types) were all finished,

ʔiswé ʔ!ê-xê-n-tà ʔàtèé, màpínj hàà séŋ||á
 now day-COLL-DEF-in cactus maping and sen||a
 nowadays, it's the cactus, the maping and the sen||a (that are used).

Human referents are always referred to by the third person plural pronoun **hèsó**. This is also the case for collective nouns that denote human referents, e.g.:

màrimò-x-àà héŋ||àkí. hèsó-áá (*hèwéxé-áá) fundisha-súnj
 teacher-COLL-SFOC enter:PL they-SFOC (SV.)teach-1PL
 The group of teachers came in. They taught us.

The use of the third person plural pronoun **hèsó** extends to non-human, animate referents, for example when referring to animal characters in story-telling, and when the pronoun refers to a human plus an animal. However, when referring to other animate referents such as 'spirits' and 'bees', both **hèsó** and **hèwé-xé** can be used.

Two personal pronouns, one singular and one plural form, can be combined to form a derived, inclusive subject pronoun. The singular form is followed by the collective marker **-x-**, which functions here as an associative plural marker (see 3.4.1 on the collective marker). The following plural pronoun, denotes the actual sentence subject, which 'includes' the singular referent.

hèsú-x-ʔsúnj-áá ʔ|àtí
 she-COLL-we-SFOC (SV.)come:PL
 We, including her, came; we came with her.

hèwé-x-ʔsúnj-áá ʔ|àtí
 he-COLL-you:PL-SFOC (SV.)come:PL
 You, including him, came; you came with him.

A free personal pronoun can function as a head or a dependent element of a nominal phrase. When the pronoun is a head, it is often accompanied by one or more particles and clitics and/or a non-coreferential subject clitic (see section 5.2). Particles include the topic marker and subject focus marker; clitics include mediative markers and question markers.

tsí-áá ***mântshà**
 I-SFOC SV.eat
 I ate.

tsí-kí **wàrèéé** **?úŋ̀=ǵà=sì** **má?à**
 I-TOP friend:m.EXCL very=CONF=1SG be_tired
 As for me, my friend, I am very tired.

A free personal pronoun can function as a possessive pronoun or as a pronominal element to which a postposition is attached. The possessive relation between the elements in the possessive construction is marked by a pitch downstep.

hèwé **tsèè-ŋg=à** **pàà** **kòbá-tà-nà=à** **||wáá**
 he (POSS.)head-DEF=3 CNJ2.3 wing-in-DIR=3 hide.3O
 And he hid his head under (lit. into) his wing.

tsí-mèé=à **|í**
 I-sake=3 come:SG
 He came for me.

Third person personal pronouns are occasionally used as a modifier of a noun (cf. demonstrative pronouns in section 4.2). In all examples, the referent is known because it has been mentioned before in the discourse. Therefore the modifying personal pronoun can be translated as ‘same, the very’.

!’wáá **hèwé-nà** **kòs=à** **thâ**
 pool he-DIR again=3 run:SG
 Again he ran to the same pool.

hí-ì **dùbé=ìŋ̀** **khimbà** **thèé** **hèwé** **ǵán-ts’í-ì**
 SUB:CNJ-2SG bang=SUB hey! tree he tear-MID2-3:NR
 When you bang, hey, this very tree will split!

Free personal pronouns are used both in verbal and non-verbal clauses. When a personal pronoun is used in a verbal clause, it may function as a subject, object, or oblique object constituent. In non-verbal phrases or clauses, the pronoun may be an argument of a zero-copula construction, or part of a topicalised phrase.

hàpú **faré-ÿ**
 you lie-AG.m
 You are a liar.

hèsú **lèébà** **ŋ||dó-sù**
 she Leeba (POSS.)child-f
 She is Leeba’s daughter.

hàpú-kí-áá 'kwáá
 you-TOP-SFOC 2SG:HORT
Your turn!; You, come on!

4.2. Demonstrative pronouns

The Sandawe demonstrative pronoun system codes referents according to distance. There are two series of demonstratives: one for near referents (glossed DEM1), and one for remote referents (glossed DEM2).

Table 8: Demonstrative pronouns

	Near (DEM1)	Remote (DEM2)
masculine singular	hèéw̃	hàáw̃
feminine singular	hèésù	hàásù
plural (human)	hèésò	hàásò
collective	hèéxwè	hàáxwè

The plural demonstrative forms are used for human referents only. Non-human referents cannot be marked by plural demonstrative forms. In order to code the non-singularity of these referents, the collective demonstrative can be used. Non-singularity of the participants is further coded in the verbal domain, by a plural marker, or a plural verb stem (see 6.4).

thèé hèéxwè
 tree DEM1.COLL
 This group of trees

hàáxwè hùmbù-xê-ŋg-à dʒòmó
 DEM2.COLL cow-COLL-DEF=3 buy
 He bought that group of cows

The structure of demonstratives can be summarized as follows:

Near: **h-èé-** person/gender/number
 Remote: **h-àá-** person/gender/number

All demonstratives have a LHL tone pattern. After the initial **h**, a long vowel with a rising tone follows. The quality of this vowel codes the near-far parameter. Note that the same vowel alternation is used to code the near/far parameter in the deictic forms **né-** and **ná-** (section 4.3). The final element of the demonstrative is a low-toned port-manteau morpheme, that gives information on person, gender, and number of the referent.

Demonstrative pronouns are primarily used as modifiers of a nominal. Usually, the demonstrative follows the head. When the demonstrative precedes the noun, the

noun is followed by a definiteness marker. In the latter case (contrastive) focus is expressed.

mátó **hèéw̃**
gourd DEM1.m
This gourd

hèéw̃ **mátô-ŋ**
DEM1.m gourd-DEF
This gourd

If the referent is known to the listener, demonstrative pronouns can be used independently. In these cases the referent has been mentioned in a prior utterance, or the referent is pointed at directly.

fumbo **||wáá-tò.** **hèéw̃** **màná-sú-sùŋ=ts'é** **ʔútáá**
mystery hide-NMN:PAT DEM1.m know-BE-1PL:NR=NEG2 long_ago
[The Swahili word] *fumbo* ['mystery'] is *||waato* [in Sandawe]. We didn't have knowledge about this long ago.

In the example above, a Sandawe equivalent is given for the Swahili word *fumbo*, namely *||wáátò*. In the second clause the demonstrative **hèéw̃** is used independently. It refers to its antecedent in the preceding clause: *||wáátò*. The demonstrative is the object argument of the second clause.

The independent use of a demonstrative in a presentational verbless sentence is illustrated below:

hàásù **thámètsù**
DEM2.f woman
That one there is a woman

In this construction, **hàásù** and **thámètsù** constitute separate phrases (as opposed to **hèéw̃ mátôŋ** 'this gourd').

4.3. Other deictic elements

The deictic elements **né-** and **ná-** are used to refer to individual persons or objects at a certain location. The vowel quality codes the near/far parameter: **né-** for near referents (DEI1) and **ná-** for remote referents (DEI2) (cf. the demonstrative formatives **hèé-** and **hàá-**). The elements can modify a noun or function as the head of a presentational verbless sentence. Each use has its own set of person/gender/number markers which are suffixed to the deictic element. Table 9 presents the deictic forms when used as nominal modifiers.

Table 9: Modifying deictic elements

	Near (DE1)	Remote (DE2)
masculine singular	nê	nâ
feminine singular	nésù	násù
plural	né?éwá	ná?áwá

Modifying deictic elements follow the noun. They refer to individual persons or objects, which are selected from a group at a certain location.

thèé nâ

tree DE12.m

That tree there (out of several)

thèé né-?éwá

tree DE1-PL

These trees here (out of several)

thámèshù né-sù

girl DE11-f

This girl here (out of a group of girls)

thámèsù ná-?áwá

girl:PL DE12-PL

Those girls there (out of a group of girls)

Note that the plural forms can refer both to human and to non-human referents and that there are no collective forms. The deictic forms differ from the series of demonstrative pronouns in this respect.

The series of deictic elements which are used in presentational verbless sentences are presented below. There are separate forms for 3PL human referents and other (non-human) plural referents.

Table 10: Deictic elements in presentational sentences

	Near (DE1)	Remote (DE2)
1SG	nê-sù	nâ-sù
2SG	né-pò	ná-pò
3MSG	né-è ~ nêngò	ná-à ~ nângò
3fSG	né-sù	ná-sù
1PL	né-sùŋ	ná-sùŋ
2PL	né-sùŋ	ná-sùŋ
3PL (hum)	né-sò	ná-sò
PL	né-?éwá	ná-?áwá

Deictic elements in presentational sentences locate the referent at a certain location, which is at near (DEI1) or remote (DEI2) distance to the hearer. The sentence may include a locative complement.

nê-s̀̀ **ʔô**

DEI1-1SG here

This is me here, I'm here (close to the hearer)

nâ-s̀̀ **tùmbélò-ts̀̀**

DEI2-1SG Tumbelo-LOC

That's me in Tumbelo, I'm there in Tumbelo (far / away from the hearer)

There are two alternative forms for 3mSG deictic elements, which show no difference in meaning.

nàngò **hét̀̀** ~ **ná-à** **hét̀̀**

DEI2.3MSG there DEI2-3MSG there

That's him there, he's there (far / away from the hearer)

4.4. The morphology of pronominal forms

In addition to free personal pronouns, demonstratives, and other deictic forms, which are described in the previous sections, Sandawe has the following series of bound personal pronouns:

- object pronouns (marked on the verb)
- subject and modality clitics (marked on non-subject constituents, e.g. verb, (non-subject) noun phrase, postpositional phrase, adverb, subordinating conjunction)
- subject markers for special verbs (marked on the verb)
- subject and modality clitics incorporated in conjunctions
- subject markers incorporated in the negative realis marker (NEG1).

The pronouns differ in many respects, both morphologically and syntactically, but the paradigms show formal correspondences to each other, and to free personal pronouns and demonstratives. Therefore this section presents an overview of the morphology of all pronominal forms. A further description of bound pronouns will be provided in sections 6.3 (object suffixes), 5.1 and 5.3 (subject clitics and negation markers), 6.7 (subject markers for special verbs) and 7.2, 7.4, and 7.5 (conjunctions).

When the paradigms are compared, the Sandawe pronominal system seems to be based on two basic sets of pronouns, labelled I and II. These sets correspond to the subject clitic paradigms of the non-realis and realis series, respectively:

Table 11: Basic sets for Sandawe pronouns (I and II)

	I (non-realis SBJ)	II (realis SBJ)
1SG	̀sì	sì
2SG	pò	ì
3	ì	à
3fSG	sù	sà
1PL	sùŋ	ò
2PL	sìŋ	è
3PL	sò	à?à, ?à

All series of pronouns contain forms that correspond to one of these two sets, with additional affixes. However, there are several irregularities and exceptions. Therefore no morpheme boundaries are given for most of the forms presented below.

The series in set I are (next to the non-realis subject clitics): subject markers for special verbs, (bound) object pronouns, negative realis clitics, free personal pronouns, demonstratives, and deictic elements.

Table 12: Pronominal forms based on set I

	I (non-realis SBJ)	special verbs	OBJ	NEG1
1SG	̀sì	̀sì	sé	ʔshé
2SG	pò	pò	pó	ʔpó
3(mSG)	ì	è	é	tshèé
3fSG	sù	sù	(é)-sú	ʔtshú
1PL	sùŋ	sùŋ	súŋ	ʔtshúŋ
2PL	sìŋ	sìŋ	síŋ	ʔtshíŋ ~ ʔtshí-sìŋ
3PL	sò	sò	ʔíŋ	ʔtsho ~ ʔtshó-sò
COLL/PL				

PPr	DEM1	DEM2	DEI1	DEI2
tsí			nềsì	nầsì
hàpú			népò	nápò
hèwé	hèéwè	hàáwè	nê, nêé ~ nêŋgò	nâ, nâá ~ nâŋgò
hèsú	hèésù	hàásù	nésù	násù
súŋ			nésùŋ	násùŋ
síŋ			nésìŋ	násìŋ
hèsó	hèésò	hàásò	nésò	násò
hèwé-xé	hèéxwè	hàáxwè	né?éwá	ná?áwá

Subject markers for special verbs are formally identical to the non-realis subject marker, except for the third person masculine singular form –è.

The paradigm of verbal object suffixes (OBJ) is characterized by a high tone (as opposed to the low tone of the forms in I). Except for **-é** and **-ʔɪŋ**, the object suffixes closely resemble the forms in I. The third person object form **-é** deviates from the I-series, but corresponds to the subject marker for special verbs, the form in the negation marker and probably the free personal pronoun. The third person plural object suffix **-ʔɪŋ** does not correspond to any other pronominal forms.

The realis negative clitic (NEG1) consists of a negation marker (***tshè**) and a high-toned subject marker, which closely resembles set I.

The personal pronouns (PPr) and demonstratives (DEM1, DEM2) also display close formal correspondences to set I. The personal pronoun forms are characterized by a high tone, except for the initial formative **hè** in the third person forms and **hà** for the second person singular pronoun. In the demonstrative paradigms, similar formatives (**hèé** and **hàá**) are found. The demonstratives further contain a low-toned subject marker, which resembles the forms in set I, with the exception of **w̃** in the masculine singular demonstratives.

Person/gender/number markers on the deictic elements **né-** and **ná-** (DEI1; DEI2) are identical to the forms of set I, except for the 3MSG forms. The plural forms **néʔéwá** and **náʔáwá**, which are used as plural nominal modifiers, contain a plural marker **-ʔwá** which is identical to the verbal plural marker.

The series of pronominal forms in set II are (next to the realis subject clitics): optative and hortative subject clitics, and subject markers incorporated in conjunctions. Examine tables 13 and 14 below.

Table 13: Pronominal forms based on set II

	II (realis SBJ)	OPT	HORT
1SG	sɪ	èʔè, ʔè	
2SG	ɪ	kò	ʔkwáá
3(mSG)	à	kwà	kwàrà
3fSG	sà	xsà	xsàrà
1PL	ò	òʔò, ʔò	
2PL	è	kwè	kwèrà
3PL	àʔà, ʔà	kwàʔà	

For the optative and hortative series, the following patterns exist: **kw+II** (optative) and **kw+II+rà**. Note however, that several forms deviate from these structures: **èʔè, ʔè** (1SG:OPT), **òʔò, ʔò** (1PL:OPT), and **ʔkwáá** (2SG:HORT).

Table 14: Pronominal forms in conjunctions, based on set II

II	SUB:CNJ	realis CNJ (short)	realis CNJ (long)	realis CNJ2	OPT CNJ2
sɪ	hɪ-sɪ	nɪsɪ-ŋ		sɪ	ʔɛɛ
ì	hí-ì	nì-ŋ	nì-ŋg-ì-ŋ	pì	kòò
à	híy-à	nà-ŋ	nì-ŋg-à-ŋ	pàà, kwàà	kwàà
sà	hí-sà	nìsà-ŋ		sàà	sàà
ò	híy-ò	nò-ŋ	nì-ŋg-ò-ŋ	pòò, kòò	ʔòò
è	híy-è	nè-ŋ	nì-ŋg-è-ŋ	pèè	kwèè
àʔà, ʔà	híy-àʔà	nàʔà-ŋ	nì-ŋg-àʔà-ŋ	ʔàà	kwàʔàà, ʔàà

Several conjunctions contain pronominal (subject) elements of set II. For some of these series, the conjunctions incorporate (both formally and semantically) the subject/modality clitic rather than just the pronominal element. This is reflected in the labels for the conjunctions, e.g. realis coordinating conjunction and optative coordinating conjunction.

The subordinating conjunction consists of the formative **hí-** and the pronominal subject marker from set II.

The short and long forms of the realis coordinating conjunction have an incorporated subject marker which is similar to the forms of set II. Short forms have the following structure: **nì+II-ŋ**, where **nì** is the conjunction and **-ŋ** is a coordinating linker. Long forms of the conjunction contain an additional nasal element: **nì-ŋ+II-ŋ**. Note that the coordinating conjunction also occurs without further pronominal subject marking: **nì-ŋ**.²⁸

The realis narrative conjunction (CNJ2) has the structure **p/kw+II+V**, where V indicates lengthening of the preceding vowel of the subject marker. The initial consonant is different when the forms are based on a pronominal form with its own initial consonant: **sɪ, sàà, ʔàà**.

The optative narrative conjunction is based on the optative subject clitic. The conjunction has a lengthened vowel when compared to the optative subject clitic. The general structure can thus be summarized as follows: **kw+II+V**, but note again that some forms are irregular.

²⁸ Moreover, there are single occurrences of the form **n-èʔè-ŋ**, and **n-òʔò-ŋ** (cf. 1SG and 1PL optative subject clitics **ʔè** and **ʔò**), which suggests an additional paradigm of optative conjunctions. This paradigm would fit in the table of pronominal forms (II) in conjunctions.

Chapter 5

Clitics

Sandawe clitics are bound elements which attach to different parts of speech and which do not necessarily have a direct syntactic relation to the host. All clitics follow their host. The following types of clitics are described in the current chapter:²⁹

- subject/modality markers; section 5.1
- negation markers; section 5.3
- the mediative markers =**gá** (confirmative), =**gé** (mirative), and =**nè** (yes/no-questions); section 5.4
- the general question marker =**ná**; section 5.5
- the exclamatory marker =**yóóó**; section 5.6

Note that some of the markers do not fully fit the definition of a clitic. For example, the subject marker of the non-realis series and negation markers have a fixed (post-verbal) position. Formally, these markers might be considered as verbal affixes. The main reason for including them in the current description is the relation between the different markers: two or more of them may form a clitic complex together. Clitic complexes centre around the subject/modality marker and attach to the host (see section 5.7). An additional reason for treating these markers together is that all have scope over the clause or the sentence.

Several subordinating and coordinating elements are also clitics. They are never part of the clitic complex and discussed separately in chapter Chapter 7.

5.1. Subject/modality

In Sandawe, pronominal subject marking and mood are encoded in one portmanteau morpheme in the form of a clitic. The clitic marks person, gender, and number of the clausal subject and the modality of a clause. Four modalities are distinguished, table 15 gives an overview of the forms of the four series. For an overview of the morphology of all pronominal forms in Sandawe, see section 4.4.

²⁹ Clitic types that are discussed elsewhere are the clause-final subordinate marker =**íŋ** (section 7.5), and the linker =**ŋ** (section 7.1).

Table 15: Subject/modality markers

SBJ	realis	non-realis	optative	hortative
1SG	sɪ	ʰsɪ	èʔè, ʔè	
2SG	ì	pò	kò	*kwáá
3	à	ì	kwà	kwàrà
3fSG	sà	sù	xsà	xsàrà
1PL	ò	sùŋ	òʔò, ʔò	
2PL	è	sùŋ	kwè	kwèrà
3PL	àʔà, ʔà	sò	kwàʔà	

These clitics have the following general (morpho-)phonological properties:

Except for the hortative series, the clitics are monosyllables that consist either of a single vowel (V), a (labialized) consonant and a vowel (C(w)V), or a consonant and a vowel followed by a nasal (CVN). The 3fSG optative and hortative forms, =**xsà** and =**xsàrà** have an additional consonant **x**.

Generally the clitics do not undergo morphophonological changes when they are attached to a preceding host. The vowel of the clitic always retains its quality. When a clitic is preceded by a nasal consonant, an epenthetic consonant **g** is inserted between the nasal and the clitic.

bòxsùŋgà < **bô-x`-sùŋ=à**
say-BEN-1PL=3

He told us

When the preceding host ends in a short vowel, the vowel quality either assimilates to the vowel quality of the clitic, or both vowels retain their quality. In the former case, a long vowel results. In the latter case the clitic forms a separate syllable, sometimes with a slight additional glide. The two realizations are in free variation. Consider the examples below:

mântshòò, mântshàò < **mântshà=ò**
eat=1PL

We ate

|íyà, |áà < **|í=à**
come:SG=3

He came

After a long vowel, the vowel of the clitic is always realized in a separate syllable. There is no assimilation of long vowels to the vowel of the clitic.

ŋ||èéyò < **ŋ||èé=ò**
enter=1PL

We arrived

When clitics of the form ⇒₁ (2SG realis and 3 non-realís) are attached to a host with a final vowel, a glide results. The final vowel of the host may be short or long.

mântshày < **mântshà⇒ì**
eat=2SG/3:NR

You ate/He will eat

ŋ||èéỹ < **ŋ||èé=ì**
enter=2SG/3:NR

You arrived/He will arrive

The following clitics have two allomorphs: 3PL realis, 1SG optative, and 1PL hortative. One allomorph consists of a vowel which is followed by a released glottal stop in the coda position, e.g. =àʔà; the other allomorph consists of an initial glottal stop with a voiced vowel, e.g. =ʔà.

The first allomorph affects the preceding host most. When the initial vowel is attached to a preceding host with a final vowel, the final vowel is replaced by the vowel of the clitic. If the host has a final high tone, this tone merges with the low tone of the clitic, which results in a falling tone.

ŋ|àtáʔà < **ŋ|àtí=àʔà**
come:PL=3PL

They came

If the host ends in a nasal consonant, an epenthetic consonant, **g**, is inserted.

bôxsúŋgàʔà < **bô-x̣-súŋ=àʔà**
say-BEN-1PL=3PL

They told us

The second allomorph, which has an initial glottal stop and a voiced vowel (e.g. =ʔà), is used in two environments. First it is used as a free variant of the first allomorph in environments where two different vowel qualities come together.

ŋ|àtíʔà < **ŋ|àtí=ʔà** (~ **ŋ|àtí=àʔà**)
come:PL=3PL

They came

Second, it is used after final long vowels, which cannot be deleted. In this context the allomorph =àʔà is not allowed.

ገጋጅጅጅጅ < ገጋጅጅጅጅጅ
enter=3PL

They arrived

The tone of the subject/modality clitics is low, except for the 2SG hortative and 1SG realis clitic. The 2SG hortative has a high tone, but after high tones it is realized on a downstepped high level (=ጐጐጐጐጐ). The 1SG realis clitic =ጐጐ does not have underlying tone. The clitic is realized on the same pitch level as the end of the preceding tone: i.e. high after high or rising, low after low or falling.

Table 16: Tonal realization of 1SG realis =ጐጐ

	=ጐጐ	=ጐጐ
after high tone (H)	ጐጐ=ጐጐ	‘I came’
after rising tone (R)	ገጋጋጋጋ=ጐጐ	‘I arrived’
after low tone (L)		māntshà=ጐጐ ‘I ate’
after falling tone (F)		’ጐጐ=ጐጐ ‘I slept’

The tonal properties of the 1SG realis clitic differ from those of the 1SG non-realis clitic.³⁰ The latter, ጐጐጐ, has a low tone on the voiceless vowel, and a floating low tone preceding the clitic. The floating tone merges with the final tone of the host, which results in a final falling contour or a final low tone on the host.

Table 17: Tonal realization of 1SG non-realis ጐጐጐ

	ጐጐጐ
after high tone (H)	ጐጐጐ
after rising tone (R)	ገጋጋጋጐጐጐ
after low tone (L)	māntshàጐጐጐ
after falling tone (F)	’ጐጐጐ

There are four paradigms of subject/modality markers. Three series contain full paradigms, viz. the realis, non-realis, and optative series. The paradigm of the hortative modality contains four forms, viz. the clitics for second person singular, third person and third person feminine singular, and second person plural subjects. Formally and semantically, the hortative modality constitutes a sub-set of the optative series (see below).

The following person, gender, and number distinctions are made for series with a full paradigm. There are three person distinctions. First and second person subjects only have a number distinction: singular or plural. Gender is not coded in first and second person markers. Third person singular subjects distinguish between

³⁰ Tone is not the only characteristic which distinguishes 1SG realis from 1SG non-realis; the two clitics also have different morphosyntactic properties, see below.

masculine and feminine gender. The gender distinction is absent for third person plural subjects.

The forms for third person subjects are labelled 3, 3fSG, and 3PL. Clitics labelled 3fSG code person, gender and number of third person feminine singular subjects. The referents are either female humans or referents of feminine gender, as shown in the following example.³¹ (Unless indicated otherwise, subject clitics in the following examples have all been taken from the realis series.)

|'úts'húkù=sà

pass=3fSG

She/it passed (i.e. female human or feminine referent, e.g. car)

Third person masculine singular subjects are coded by a form from the row labelled '3' in table 15. The referents are either male humans or referents of masculine gender.

ts'ée=à

drink=3

He drank (i.e. male human or masculine referent, e.g. cow)

The forms labelled '3' also code third person plural non-human and non-specific (collective) human subjects, either in combination with the verbal plurality morpheme **-wà** or with a suppletive plural verb stem, e.g.

ts'ée-wà=à

drink-PL2=3

They drank (e.g. cows, unidentified group of people)

hùmbù ɬà?àtá=à vs. hùmbù tɬàásì=à

cow die:PL=3

cow die:SG=3

The cows died

The cow died

Thus, the label '3' covers the use of the clitic in marking both masculine singular and a set of non-singular third person subjects (gender-neutral).³²

Third person plural subjects with (non-collective) human referents have separate forms that are glossed '3PL'.³³ These clitics cannot be combined with the verbal

³¹ The group of nouns of feminine gender is small, compared to the nouns of masculine gender, see section 3.2.

³² Note that the third person subject clitics ('3') cannot be used with feminine referents, different from the use of the 3O object suffix **-é** (section 6.3).

³³ A similar distinction between types of third person plural referents is found with verbal object pronouns (section 6.3).

plurality morpheme **-wà**; however, in combination with a verb of the set of suppletive singular/plural stems, they can only occur after a plural stem.

 'útshúkù=?à	* 'útshúkù-wà=?à
pass=3PL	pass-PL2=3PL
They passed	

ǀa?àt=ǀa?à	* ǀaásǀ=?à
die:PL=3PL	die:SG=3PL
They died (specific humans)	

Out of context, a 3PL subject clitic is interpreted as referring to specific human subjects. However, 3PL pronominal subject markers may also be used for non-human animate referents if the subject has been clearly identified in the preceding discourse or if the animate subjects act as human beings (e.g. in animal stories). Consider the following example from a procedural text on the collection of honey, in which the non-human subjects (bees) are known from preceding discourse. The subject clitic is from the non-realis series.

mírǀǀǀ !'òówé-sò
 medicine find:3O-3PL:NR
 They (bees) will find medicine.

The morphosyntactic status of the clitics differs for the four series. First, the non-realis clitics differ from the clitics in the realis, optative and hortative paradigms: while non-realis clitics are always attached to verbs, clitics from the other three series can be attached to non-verbal constituents as well (except subject constituents).

Second, the subject clitics in the realis series differ from the clitics in the non-realis, optative and hortative series. While the latter series occur only once per clause, the clitics of the realis series may occur several times per clause. A summary is given in the table below. The syntax of subject/modality clitics is further discussed and exemplified in section 5.2.

Table 18: Morphosyntactic status of subject/modality clitics

	realis	non-realis	optative	hortative
position	all constituents, except S	verb only	all constituents, except S	all constituents, except S
occurrence per clause	multiple allowed	once	once	once

The four series of Sandawe subject/modality clitics encode three kinds of propositions:

- propositions about actual events (realis)
- propositions about non-real and future events (non-realis)
- commands, wishes, and incentives (optative and hortative).

The terms ‘realis’ and ‘non-realis’ correspond to ‘realis’ and ‘irrealis’, as used for Sandawe by Elderkin (1989) and Eaton (2002).

5.1.1. Realis

Clauses which are marked by realis subject clitics express propositions about real situations, i.e. descriptions of actual events and imaginary situations which are presented by the speaker as real. The realis subject clitics are only used with affirmative clauses.³⁴ Negative realis clauses are formed with a dedicated negative realis marker, cf. section 5.3.1.

Realis clauses which describe actual events can refer to the present or the past. Reference to time is not expressed by the realis modality markers, but by additional temporal adverbs or phrases.

ʔixì=sì bô káʔá ...
 thus=1SG say that
 I said/say thus: ...

ʔútè ʔixì=sì bô káʔá ...
 yesterday thus=1SG say that
 Yesterday I said thus: ...

swê ʔixì=sì bô káʔá ...
 now thus=1SG say that
 Today/now I say thus: ...

Other examples of realis-marked clauses include (sub-ordinate) conditional clauses and instructions in procedural texts. For these realis clauses, the speaker presents the situation as being real, even though the clause may describe an event which has not been realized (yet). The following example illustrates a conditional realis clause, which precedes the main clause. The condition (‘if you go out for beer’) is an imaginary situation, but it can be realized.

hí-ì k’ámé-nì=ì tú=ìʔi k’ámé=kò ||’àá
 SUB:CNJ-2SG beer-DIR=2SG go_out=SUB beer=2SG:OPT follow
 If/once you go out for beer, go after beer only. (Saying)

³⁴ The obligatory subject marker on the conjunction in negative subordinate clauses forms an exception.

In procedural texts 2SG realis clitics can be used to give instructions on how a procedure should be followed. The following clauses illustrate fragments of a procedural text in which the speaker describes how a beehive is constructed. After an initial question and an affirmative clause with non-realis subject clitics, the speaker starts to use realis subject clitics for his instructions and continues using them for the rest of the text.³⁵ The speaker thus presents the situation as an actual event. Reference to time is absent in these instructions.

híkí !'ámé-sùn=ná

how? shape-1PL:NR=Q

How will we cut (the beehive) into shape?

kóngórà?à bà?átè síyé-pò pù thèé=ì ñ|èé

axe big take-2SG:NR CNJ2.2SG tree=2SG cut

You will take a big axe and then you cut a tree.

hí-à !'wá-ñg-àà tìé=ì? tìé=ì? pù thóónò?=ì síyé

SUB:CNJ-3 hole-DEF-SFOC be_finished=SUB CNJ2.2SG adze=2SG take:SG

When the hole (i.e. the hollow space) is ready, you take an adze.

Realis clitics do not code aspect, but two aspectual distinctions can be made in combination with them. First, habitual aspect is expressed by the plural marker **-wà**, which is combined with a realis subject marker (see also section 6.4.2).

mìndà-tà-nà=sì hík'í-wà

field-in-DIR=1SG go:SG-PL2

I usually go to the field.

Second, realis clitics can be used in constructions that express progressive aspect. These constructions consist of a lexical verb, an auxiliary verb (**ñiyé / nèé** 'stay SG/PL'), the verbal linker **-ñ**, and a subject/modality clitic (see also section 7.1).

gìt'è-ñ ñ||ñ-ts'á=à ñiyé-ñ

cloth-DEF wash-MID1=3 (VV.)stay:SG-VL

The garment is being washed.

5.1.2. Non-realis

Non-realis clauses are propositions about situations that are presented by the speaker as non-real. While realis clauses give a clear semantic statement (the situation is real at the time of reference, or is presented as real), the semantics of non-realis clauses are broader: the propositions are not true (irrealis), may be true, or may prove to be

³⁵ Note that 2SG optative clitics are not used for the instructions in this text.

true in the immediate or distant future. Therefore translations in English make use of different modal verbs, e.g. can, may, will.

The example below illustrates the irrealis semantics of a clause with a non-realis subject clitic (→ s_i 1SG) The counterfactual proposition expresses what would have happened if the condition were true. Note that the conditional clause at the end of the sentence has a negative realis marker.

ʔútè=wáʔà |í-s_i=gáʔà tɪ'wân ||'óó-tshèé=wáʔà
 yesterday=CND come:SG-1SG:NR=CONF rain rain=NEG1.3=CND
 Yesterday I would certainly have come if it had not rained (but it did rain, so I didn't come).

The following non-realis clauses illustrate propositions that are likely to be true in the (near) future.

ʔáʔá ʔiswê=sìʔi wàrèé-ŋ ŋ|ím-pô-s_i=gáʔà
 INTJ now=TOP2 friend.m-ATT eat_meat-2SG-1SG:NR=CONF
 Ah, now, my friend, I will eat you.

hèwé-xé-ʔiŋ ts'á-ŋ dʒòʔi-nà táné-sùŋ
 he-COLL-INSTR water-DEF (POSS.)back-DIR pull-1PL:NR
 With these, we will pull the water backward,

pàà súŋ málámbò tán-ŋ-nà hík'í-ì
 CNJ2.3 we (POSS.)big_trough front-DIR go:SG-3:NR
 and our trough will go forward.

In the non-realis clauses below, the propositions express situations that may be true, but which are not true at the time of reference. For the speaker it is irrelevant whether these situations will become real in the future.

ʔàmàà phê !'òó-pó-ì
 maybe tomorrow get-2SG-3:NR
 It (poverty) may find you tomorrow (i.e. tomorrow you might be poor).

mànàá-pò=ts'é hó bàárà-ŋ tʔáásì-ʔòŋ
 know-2SG:NR=NEG2 who? start-VL die-INF
 You can't know who will die first.

In the following saying (realis clause) and its explanation (one negative realis clause followed by four non-realis clauses), the speaker presents some imaginary, non-real situations which illustrate that 'death does not have age groups'. The speaker imagines a child, who may die young, or an adolescent, who can die. An elder may die, but even an unborn child. All are propositions that may be true.

tlaási mǎríkà-s-ê=ts'é mǎnàákhè tlaási bà?é ||'áá=tshèé
 death age_group-BE-3=NEG2 its_meaning death be_big follow=NEG1.3
 Death doesn't have age groups. It means, death doesn't follow the big (old) ones.

ŋ||òó-kí=wá?à tlaási-ì, k'arèé-kí=wá?à tlaási-ì,
 child-TOP=CND die-3:NR youth-TOP=CND die-3:NR
 Would it be for a child, it may die; for a youth, he may die,

dí?isèé-kí=wá?à tlaási-ì, tí'ábisóó-kí=wá?à !'áwí-ì
 elder-TOP=CND die-3:NR stomach-TOP=CND fall-3:NR
 for an elder, he may die; a pregnancy may fail.

Negative non-realis clauses are marked by the non-realis subject clitic in combination with the invariable negation marker =**ts'é** (section 5.3.2). The negation marker follows the non-realis clitic.

dóró hèwé 'mípándà mìkhé-ì=ts'é
 zebra he POSS.route leave-3:NR=NEG2
 A zebra won't leave his route. (Proverb)

sún ||ó-?ò ŋ||èé-ŋ dàá-sùn=ts'é
 we over_there-LOC enter-VL be_able-1PL:NR=NEG2
 We won't be able to arrive at that place.

Non-realis clauses can express progressive aspect by the use of an auxiliary verb (**?íyé / nèé** 'stay SG/PL') and the verbal linker **-ŋ**.

ŋ!ê nèé-ŋ |'útshúkù-wá=ì
 day stay:PL-VL (VV.)pass-PL2-3:NR
 Days will be passing.

Besides the paradigm of non-realis subject clitics, there is an additional 1PL verbal subject marker **-sà**. This morpheme is occasionally used in affirmative non-realis clauses as a variant of the 1PL non-realis clitic =**sùŋ**.

sún-kí máx-óó-kí-?ŋ tsí 'ŋ|ín-ts'ì síyé-ts'è-é-sà
 we-TOP be_smart-NMN-TOP-INSTR I POSS.meat-LOC take:SG-APPL-3O-1PL:NR
 We as well, by smartness, will deprive him from my meat.

5.1.3. Optative

Optative clauses express commands, wishes, and incentives. As second person commands are part of the same paradigm as first and third person incentives, there is no reason to distinguish a special category imperative. Second person optatives are roughly equivalent to imperatives in other languages.

k'wêŋ=kò **ŋ|èé-x-^tsé** **rògò-ŋŋ**
 neck=2SG:OPT cut-BEN-1SG knife-INSTR
 Cut my neck with a knife!

First and third person optative clitics are used in wishes and incentives.

sìphìtháŋ-n=ò?ò **xéé**
 hospital-DIR=1PL:OPT bring:3O
 Let's get him to the hospital.

ŋixò=kwà **ŋiyé**
 thus=OPT.3 stay:SG
 Let it be so!

A command can be used in progressive aspect, in order to express that the addressee should continue a certain action.

wàré **dzàdzàsé=kò** **ŋiyé-ŋ**
 friend.m roast.FACT=2SG:OPT (VV.)stay:SG-VL
 My friend, go on roasting!

5.1.4. Hortative

The hortative expresses wishes and incentives. Compared to the optative, hortative propositions are less imperative; the speaker expresses a (real) wish or incentive, and tries to convince the addressee of his/her intentions. Note that there are no 1SG, 1PL, and 3PL hortative forms.

|í=^tkwáá
 come:SG=2SG:HORT
 Please come, do come!

ŋ|àí=kwèrà
 come:PL=2PL:HORT
 Please come, do come (PL)

!wàwé='kwáá

???=2PL:HORT

I am sorry for you; my condolences

There is one specific use of the hortative in a non-verbal utterance. The following phrase is used in riddling for example and urges the addressee to take his/her turn:

hàpú-kí-áá='kwáá

you-TOP-SFOC=2SG:HORT

Your turn!

5.2. The syntax of subject/modality clitics

Sandawe has a relatively free word order. Therefore many different constituent orders and occurrences of subject/modality clitics are possible. The following description does not seek to give a complete overview of the syntax of these clitics, but sketches an outline of common patterns. An overview of Sandawe constituent orders and the relation to information structure is provided by Eaton (2002).

The basic constituent order in Sandawe verbal clauses is OV. Subjects, either in the form of a full pronoun or a noun phrase, generally precede the object. In most verbal clauses a subject/modality clitic is present which codes person, gender, and number of the subject, in addition to the modality of the clause. However in realis clauses, a full pronominal or lexical subject can be accompanied by the subject focus marker **-aa**, in which case the subject/modality clitic may be absent. The presence and absence of the realis subject clitic in verbal clauses are illustrated below.³⁶

In the first clause the 3PL subject clitic of the realis series, **-à?à**, is attached to the postpositional phrase **mséà-tš'ǎ** 'in Msera'. It codes person and number of the subject 'people of Kurio'. In the second clause the lexical subject, 'people of Msera', carries the subject focus marker, which codes contrastive focus. There is no subject/modality clitic in this clause. The presence of a subject with a subject focus marker can thus exclude a realis subject clitic elsewhere in the clause.

?útè màákhà kúrìyò ǎ|òmósò mséà-tš'ǎ=à?à hàwé-ǎ nì-ǎ ts'â-kù
 yesterday (POSS.)year Kurio (POSS.)people Msera-LOC=3PL fetch-VL CNJ-CL drink-CAUS1
 Last year, the people of Kurio fetched water and drenched in Msera.

hèéw màákhà mséà ǎ|òmós-àà kúrìyò-?ò hàwé-ǎ nì-ǎ ts'â-kù
 DEM1.m year Msera (POSS.)people-SFOC Kurio-LOC fetch-VL CNJ-CL drink-CAUS1
 This year, the people of Msera fetch water and drench in Kurio.

³⁶ All subjects in the examples, whether lexical or pronominal, are underlined in the first and second lines.

The distribution of subject/modality markers is different for non-realis subject clitics on the one hand and realis, optative and hortative subject clitics on the other hand. Non-realis subject clitics are invariably marked on the verb and occur only once per clause. They are obligatorily present and cannot be omitted if (focused) lexical or pronominal subjects are present.

làbá hí-ì háp-áá tíàás-íŋ hápú màkàá tsí tí'àá-sì
 later SUB:CNJ-2SG you-SFOC die=SUB you (POSS.)wealth I take:PL-1SG:NR
 Later, when you die, I will take (inherit) your properties.

The syntax of subject clitics of the other modalities is more complex: different constituents can serve as a host for these subject clitics. Moreover, multiple occurrences of a subject clitic are observed for realis subject clitics, especially in spontaneous speech. Optative and hortative subject clitics occur only once per clause. The following description first discusses possible hosts for realis, hortative and optative subject clitics; second, the position in the sentence of these clitics is discussed.

5.2.1. Hosts for subject/modality clitics

Subject/modality clitics (with the exception of non-realis clitics) may be attached to one or more of the following hosts:

- verbs
- noun phrases/independent pronouns (object)
- postpositional phrases
- question words (non-subject)
- adverbs of manner, time, and degree
- conjunctions
- the complementizer **káŋá**; or the topic marker **kì-** when it precedes the complementizer
- negation markers

Interjections and epistemic modal adverbs never serve as a host for subject clitics, e.g. **ŋèè** ‘yes’; **ŋàŋá** ‘no’; **ŋàmàà** ‘perhaps’; **dímè**, ‘perhaps’, **ŋàŋkhákí** ‘definitely’.

The clauses below illustrate the attachment of realis subject clitics to the various hosts:

k'wàwá=à

be_ill=3

He is ill

(host: verb)

káákà-ŋ-kì **chupa-tà-nà=à** **tsèè-ŋg=à** **ŋ||èé-sú'k-é**
 dog-DEF-TOP bottle-in-DIR=3 head-DEF=3 enter-CAUS2-3O

As for the dog, he has entered his head inside the bottle.

(hosts: postpositional phrase; object)

hóts=ì **ŋ|wéé**

what?=2SG do

What did you do?

(host: question word)

sàndàwé **ŋx=à?à** **ŋàáréts'í** **ká?á** ...

Sandawe thus=3PL believe that

Thus, the Sandawe believe that ...

(host: adverb of manner)

ŋútè=sì **|í**

yesterday=1SG come:SG

I came yesterday

(host: temporal adverb)

hèéxwè **ŋ!è-xè-n-tà** **ŋúr=à?à** **mímíkì**

DEM1.COLL day-COLL-DEF-in very=3PL understand

Nowadays they understand a lot

(host: adverb of degree)

The syntax of subject/modality cliticization to subordinating conjunctions, the complementizer **ká?á** and to negation markers is different from the attachment to the other types of hosts.

The subordinating conjunction **hí(ì)-** is always followed by the realis subject clitic.³⁷ In the following example, both the conjunction and the lexical object are hosts for a realis subject clitic.

hî-sì **hàpú** **hùmbù=sì** **ŋ|ŋg-é-ŋ** **!'òókhá=ì?í** , ...

SUB:CNJ-1SG you (POSS.)cow=1SG eat-3O-VL finish=SUB

Once I have finished eating your cow's meat, ... (riddling phrase)

The attachment of subject/modality clitics to the complementizer **ká?á** is irregular, because the subject clitic precedes the complementizer.

ŋixì=kò **bô-'kw-é** **kò ká?á** ...

thus=2SG:PT say-BEN-3O 2SG:OPT that

Tell him this: ...

The subject clitic can also follow the topic marker **ki-**, but only when it occurs in combination with the complementizer **ká?á**:

³⁷ Other conjunctions either have an optional realis clitic (cf. **n(ŋ)**, section 7.2), or a special kind of subject marking (see the realis and optative narrative conjunctions in section 7.4).

sàà hínsònsò-?ò=sà kì=sà ká?á ní?ì=gó=ò=yóóó
 CNJ.3fSG other. PL-LOC=3fSG TOP=3fSG that go:PL=CONF=1PL=EXCL
 And she says to the others: “Hear, we are leaving!”

sì kì=sì ká?á ||òóxì η||èé-ká-á='tshún
 CNJ.1SG TOP=1SG that yet enter-COM-3O=NEG1.1PL
 And I said “We did not bring him yet”.

Negation markers also serve as a host for subject/modality marking. Negative realis clauses have a dedicated negation marker, which has an incorporated subject marker (section 5.3.1). Negative optative and negative hortative clauses have a free-standing negation marker **mèé** which serves as a host for the optative or hortative subject clitic.

mèé=kò hàlé-ts'í
 NEG:OPT=2SG:OPT glorify-MID1
 Don't glorify yourself!

5.2.2. The position of subject/modality clitics in the clause

The description in this section starts with simple clauses and then illustrates more complex sentences and occurrences of optative and realis clitics in spontaneous speech, which show most variation. There is one rule which applies to all clauses: subjects, whether lexical or pronominal, *never* host a subject/modality clitic.

In affirmative clauses, subject/modality clitics are most frequently marked on a preverbal non-subject constituent. Often the immediate preverbal element serves as a host for the clitic, which may be a lexical or pronominal object or postpositional phrase. Both transitive ((S) (PP) O V) and intransitive clauses ((S) PP V) display this type.

ʔàá=ʔà ||'èé
 goat=3PL skin
 They skinned a goat.

||hôn-tà-nà=sà sóóxì
 cave-in-DIR=3fSG examine
 She examines inside the cave.

ʔútè m̀ndà-tà-nà=sì hík'ì
 yesterday field-in-DIR=1SG go:SG
 I went to the field yesterday.

||hàtà-ʔɪŋg=òʔò níʔ
 leg-INSTR=1PL.OPT go:PL
 Let's go on foot.

In affirmative clauses the verb may also be the host for the subject/modality clitic, but this type of marking is less frequent. Most of the examples lack a suitable preverbal host. The clauses may contain a lexical or full pronominal subject, but this constituent is never a host for the subject/modality clitic.

ʔèè ɲ|òmósò dèé=gá=ʔà
 yes person.PL be_many=CONF=3PL
 Yes, people were many.

In the example below, there are two instances of the subject/modality clitic (1SG): both on the verb and on the postpositional phrase, which occurs after the verb. The presence of an (additional) subject/modality clitic on postpositional phrases after the verb is common.

|âŋg-é=sí tsí |'wèé-ʔɪn=sì
 see-3O=1SG I (POSS.)eye-INSTR=1SG
 I have seen it with my own eyes!

In negative clauses, subject/modality marking always attaches to the negation marker. No subject clitics are present on other constituents. Optative and hortative negative clauses have a free-standing negation marker which precedes the verb.

sógóró léŋgí-s-ê-ɲ mèé=kò lòk'ò-sé-é
 stick get_stuck-BE-3-REL NEG:OPT=2SG:OPT touch-FACT-3O
 Don't touch a stick that got stuck!

Negative realis clauses contain a dedicated negative realis clitic, which is invariably attached after the verb.

hàpú 'ròŋ khéʔé='tshé
 you POSS.voice hear=NEG1.1SG
 I didn't hear your voice.

Other elements that are automatically selected as host for the subject/modality clitics are conjunctions and the complementizer **káʔá**, which are typically clause-initial and clause-final elements, respectively.

n=òʔò-ɲ súŋkíʔɪŋ súŋ sàyò
 CNJ=1PL.OPT-CL our_language we converse
 And let's talk in our language,

ʔòò súŋ-kí-áá 'mána-ts'í !'úma-tà
 CNJ2.1PL:OPT we-TOP-SFOC SV.know-MID1 earth-in
 let us be known in the world.

ʔixi=kò bô-'kw-é kò-káʔá ...
 thus=2SG:PT say-BEN-3O 2SG:OPT-that
 Tell him this: ...

In subordinate realis clauses, the subject/modality clitic is obligatorily attached to the subordinating conjunction. The same clitic can be present elsewhere in the clause, for example on the postpositional phrase:

nì-ŋ hí-à !'úma-nà=à thòó=ʔi pàà chupa-ŋg-àà ʔǎn-ts'í
 CNJ-CL SUB:CNJ-3 earth-DIR=3 jump=SUB CNJ2.3 bottle-DEF-SFOC break-MID2
 And when he jumped down, the bottle broke.

The common patterns, which were outlined above, have many exceptions. Most of these concern the position of the realis subject clitic and the number of occurrences per clause. A main factor in the positioning of the subject/modality markers is information structure. As Eaton (2002) shows, constituent order and the presence of the subject/modality clitic on a host (an “inflected constituent”) are indicators for focus marking in Sandawe.

According to her, the results of three focusing tasks “provide clear evidence of a relationship between sentence form variation and focus. The major generalisation to be made is that a focused constituent in a Sandawe realis sentence is usually inflected and an unfocused one is usually uninflected. The exceptions to this pattern can be characterised in terms of the type of constituent involved and whether other constituents are also focused in the same sentence. [...] [T]here is also a tendency for focused material to occur preverbally and unfocused material to occur postverbally, but a strong preference for SOV often overrules these tendencies. [...] The grammaticality judgement tasks show that the relationship between focus and sentence form is played out within the limits imposed by certain grammatical restrictions.” (Eaton 2002:179-180)

Our data confirm these generalizations. Changing the position of the subject/modality clitic usually shifts the focus to the new host. The following two clauses contrast the preverbal and the verbal position of the 3PL realis clitic.

ʔàá=ʔà ||'éé
 goat=3PL skin
 They skinned a goat; They skinned a *goat*.

ʔàá ||'éé=ʔà
 goat skin=3PL
 A goat was skinned; They *skinned a/the* goat.

Both clauses were elicited as sentences to be translated from Swahili. They were also checked by asking to what question (in Swahili) they could reply. The prompt for the first clause was *wamechuna mbuzi* ‘they skinned a goat’; the clause may be used as a reply to questions like: *wamefanya nini?* ‘what did they do?’; *wamechuna nini?* ‘what did they skin?’ or *wamechuna ng’ombe?* ‘did they skin a cow?’. Thus, the preverbal position of the subject/modality clitic is not only a default position for a clause without focus, but also a way to mark (contrastive) object focus.

The second clause was a translation of *mbuzi imechunwa* ‘a goat was skinned’. Note that a direct translation of the passive Swahili sentence is not possible, as Sandawe does not have passive voice. The result is an active, realis clause in which the 3PL realis clitic is used as a non-specific subject. The object ‘goat’ which corresponds to the patient subject in the Swahili sentence, remains unmarked. The clause may also be used as a reply to *wamechinja mbuzi?* ‘did they slaughter a/the goat?’, where it expresses contrastive verb focus.

Similar interaction between the preferred preverbal position of the subject/modality clitic and focus marking is found in interrogatives. In question word questions, question words are in focus and precede the verb. The subject/modality clitic (or for subject question words; the subject focus marker) is usually attached to the question word. The general question marker **ná** is optional.

hóts=à=ná **ʔíyé-ŋ** **n|wéeé**
 what=3=Q vv?.stay:SG-VL do
 What is he doing?

Yes/no-questions show variation in the position of the clitic complex, which contains the yes/no-question marker **=nè** and the subject/modality clitic. The clitic complex may be attached to the clause-final verb, in which case there is no focus on a single constituent. The example below illustrates this type.

mátó-ŋ **síyé=nì=ì**
 gourd-DEF take:SG=Y/NQ=2SG
 Did you take the gourd?

When the clitic complex is attached to the preverbal object, this constituent is in focus.

mátó=nì=ì **síyé**
 gourd=Y/NQ=2SG take:SG
 Did you take *a gourd*?

The constituent order often varies and there may be two subject/modality clitics present in one clause. The interpretation in terms of focus or grammatical restrictions is therefore much more complex than described above.

In several examples, a postpositional phrase follows the verb and hosts a subject/modality marker. The postverbal position could be interpreted as a way of focusing the adjunct:

tsùŭ-ŋ |'áŋkí=sí 'Yiyé tláńá-tà-nà kàté=sí
 animal-DEF (POSS.)up=1SG SV.stay:SG horn-in-DIR (POSS.)amid=1SG
 I am on top of the animal, *in between the antlers!*

Alternatively, the postpositional phrase may be considered an afterthought, which requires additional subject marking in order to link it to the preceding clause.

láá?è-ŋ kèlèmbâ-ŋg=à síyé-ŋ '||wáá tàńá-?à-tè=à
 hare-DEF (POSS.)skin-DEF=3 take:SG-VL VV.hide.3O elsewhere-LOC-area=3
 He took the skin of the hare and hid it somewhere else.

The example below consists of two coordinated clauses. The first clause contains a lexical subject, a narrative conjunction which includes subject reference, and a verb; the second clause has an initial verb and a postpositional phrase which hosts the realis subject clitic.

láá?è-ŋ pàà gùú?ù, sóóxì bìrì tshìńá-tà-nà=à
 hare-DEF CNJ2.3 kneel_down inspect bed (POSS.)buttocks-in-DIR=3
 Then the hare knelt down and inspected under the bed.

The following example consists of two separate clauses. In the second clause both the initial auxiliary verb and the object, which precedes the main verb, host a subject/modality clitic.

pàà xóóxórì-ŋg=à |áŋg-é Yiy=â-ŋ ŋ|ŋg=à ŋ|ínì
 CNJ2.3 crow-DEF=3 see-3O stay:SG=3-VL meat=3 eat_meat
 And he saw the crow. It was (still) eating meat.

In elicitation, a progressive realis clause has only one subject/modality clitic. Further the auxiliary is adjacent to the main verb:

ŋ|ŋg=à Yiyé-ŋ 'ŋ|ínì
 meat=3 stay:SG-VL VV.eat_meat
 It is/was eating meat.

The question remains why these sentences contain two clitics. The clitic on the fronted auxiliary verb probably expresses focus on the progressive aspect (the crow *continues* eating). The position of the second clitic corresponds to the preferred preverbal position.

In summary, Sandawe subject/modality clitics are preferably attached to preverbal non-subject hosts in SOV clauses. The position of subject/modality clitics is one of the ways to express focus. When the variation in constituent orders is also taken into account (cf. Eaton 2002:265-288), it is clear that the syntax of subject/modality clitics is a complex interplay of factors.

5.3. Negation

There are two types of negation markers in the form of a clitic:

- a series of port-manteau negative realis clitics (NEG1) that include subject marking
- an invariable negative clitic (NEG2): =**ts'é**

Negative optative and negative hortative clauses are marked by a free-standing negation marker **mèé**, which hosts the following optative/hortative subject clitic.

5.3.1. The negative realis clitic

The negation marker for realis clauses (NEG1) is a clitic which includes pronominal subject marking. Negative realis clitics mark negation at clause level. Table 19 illustrates the forms:

Table 19: Negative realis clitics

NEG1	
1SG	†tshé
2SG	†pó
3	tshèé
3fSG	†tshú
1PL	†tshún
2PL	†tshún, †tshí-sún
3PL	†tshó, †tshó-sò

The 2PL and 3PL negative realis clitics have an alternative form in which the negative realis clitic is followed by an extra subject marker. Thus, **†tshí-sún** may be used instead of **†tshún**, and **†tshó-sò** can be used instead of **†tshó**.

Except for the 2SG form, all negative realis clitics have an initial consonant **tsh**. Historically, the clitics seem to be fused forms, which consist of a negation marker and a marker that codes person, gender and number of the subject.³⁸ On the basis of

³⁸ Note that the markers that code person, gender, and number of the subject do not resemble the realis subject clitics, but rather the forms of the non-realis subject markers (section 5.1.2) and other pronominal forms. For an overview of the morphology of pronominal forms, see section 4.4.

the third person form **tshèé** (<***tshè-é** ?), one may reconstruct the negation marker as ***tshè**.³⁹ Apparently, with consonant-initial subject markers the vowel of the negation marker was deleted. The cluster ***tsh-s** was simplified to **tsh**, while ***tsh-p** (2SG) apparently became **p**. The tonal downstep preceding the clitic can be considered a trace of the original low tone on ***tshè**.

1SG	†tshé	<	* †tsh-sé	<	* tshè-sé
2SG	†pó	<	* †tsh-pó	<	* tshè-pó
3	tshèé	<	* tshè-é		
3fSG	†tshú	<	* †tsh-sú	<	* tshè-sú
1PL	†tshúnj	<	* †tsh-súnj	<	* tshè-súnj
2PL	†tshínj	<	* †tsh-sínj	<	* tshè-sínj
3PL	†tshó	<	* †tsh-só	<	* tshè-só

The negation marker is related historically to the negative verb **tshèé** ‘not be (present)’. This verb is combined with obligatory verbal subject markers, which are identical to the subject markers of the negative realis clitics except for the low tone. The third person form has no extra subject marker: **tshèé** ‘he is not present’ and is formally identical to the third person form of the negative realis clitic. For a full paradigm, see section 6.7.1.

The negative realis clitic is attached to verbs only. It is added after the verb form, i.e. after the verb root plus any derivational morphemes and verbal object pronouns.

hàpú †rôŋ kʰéʔé=†tshé
 you POSS.voice hear=NEG1.1SG
 I didn’t hear your voice.

||ðóxì ŋ||èé-ká-á=†tshúnj
 yet enter-COM-3O=NEG1.1PL
 We didn’t bring him in yet.

There are no further subject/modality clitics present in negative realis clauses, except for the obligatory subject marker on the subordinating conjunction.

hí-à mǵàŋgàyê-ŋ fàré=tshèé=ìŋ ...
 SUB:CNJ-3 healer-DEF lie=NEG1.3=SUB
 When this healer does not lie, ...

³⁹ According to Elderkin (1989:222-226) **tshè** is a “privative morph” which encompasses both the negation marker and a postposition meaning ‘from’. Moreover, he posits a historical development from **tshè** to the negative morpheme **†ts’é** (NEG2 in the present description).

5.3.2. The negative clitic ^hts'é

The negative clitic ^hts'é (NEG2) is used to code three types of negative clauses:

- Negation of non-realis (verbal) clauses
- Negation of verbs of possession and adjectival verbs
- Negation of non-verbal clauses (negative copula)

Non-realis clauses are negated by the negative clitic ^hts'é. The marker is attached to the non-realis verb form, i.e. it comes after the non-realis subject marker. The following examples illustrate negative non-realis clauses. The realisation ^hts'é?é in the second example is a free variant of the negation marker.

sún kama sàndàwé-sùn tē?èsi?i máná-ts'i-sùn=^hts'é
 we as Sandawe-1PL otherwise know-MID1-1PL:NR=NEG2
 Otherwise, we as Sandawe, we won't be known.

||'wèé=?ò, hùmà-súnŋ-ì=^hts'é?é
 try=1PL:OPT overcome-1PL-3:NR=NEG2
 Let's try, it won't defeat us.

ʔixi hewé-ts'i ||'wèé-si=^hts'é ʔàŋkháki
 thus he-LOC try-1SG:NR=NEG2 definitely
 I will never try (and do) something like this!

Secondly, the negative clitic ^hts'é is a negation marker for special verbs (e.g. 'to have' and adjectival verbs, section 6.7). Special verbs are characterized by the verb marker **-sí**. The verbs do not code modality: there is a fixed set of verbal subject markers, which formally resembles the series of non-realis subject clitics. The negative clitic ^hts'é is attached to the verb after the subject marker.

The following two examples illustrate negated verbs of possession.

kòlón-sí-si=^hts'é
 hoe-BE-1SG=NEG2
 I don't have a hoe.

tíàásì mǎríkà-s-ê=^hts'é
 death age_group-BE-3=NEG2
 Death doesn't have age groups.

Negative forms of adjectival verbs are similarly marked by the negative clitic ^hts'é.

hàpú-xé?é thwíí fàwé-s-ê-ŋ |ân-sí-sì=ts'é
 you-like bird be_good-BE-3-DEF see-BE-1SG=NEG2
 I have never seen (such) a nice bird like you.

màtũndà-ŋ |ân-ts'í-s-ê=ts'é=gâ?à
 Matuunda-DEF see-MID1-BE-3=NEG2=CONF
 This Matuunda is invisible.

The negation marker may also be incorporated in deverbal nouns, which are derived from verbs of possession and adjectival verbs.

mántshà-s-ê=ts'é-ŋ khòô-n-ts'ŋ búŋ ʔiyé-ì=ts'é
 food-BE-3-NEG2-DEF (POSS.)house-DEF-LOC mouse stay:SG-3:NR=NEG2
 A mouse won't stay in a household that has no food.

hèwé màrà-s-ê=ts'é-ts'í ŋ|wéé=gá=à
 he (POSS.)be_knowledgeable-BE-3=NEG2-NMN2 do=CONF=3
 His lack of knowledge has done it.

Thirdly, the negation marker =**ts'é** functions in non-verbal clauses. The following examples contrast affirmative and negative non-verbal clauses. The affirmative clause is non-verbal. The second, negative clause is marked by the negation marker =**ts'é**.

ɖimè thèé, hàà khimbá thèé=ts'é
 maybe tree and EXPR:INTJ tree=NEG2
 Maybe it's a tree, but hey: it's not a tree!

ʔútáá mìsíkoó thèé dōŋ hàà mápín, mápín=ts'é, !wèéyà
 long_ago beehive (POSS.)tree dong and mapping mapping=NEG2 !weeya
 Long ago, the trees for beehives were the dong tree and the mapping tree, (no) not the mapping tree, the !weeya tree.

The scope of the negation may be wider than a single noun (cf. the negative deverbal nouns above). In the following examples, the clitic has scope over a noun phrase. In the following example, the possessor noun is preceded by a pronoun.

[hèwé 'mántshà]=ts'é
 he POSS.food=NEG2
 This was not his (type of) food.

In the following examples, the clause includes a noun phrase and an adverb. The negation marker is always the final element of the clause.

mùthùgù-ts'í [màkàá tʰàkí-ts'í títèé]=+ts'é
 be_poor-NMN2 thing (POSS.)be_absent-NMN2 alone=NEG2
 Poverty is not just the absence of wealth.

[hèwé-xé títèé]=+ts'é nì-ŋ híngé-xê-ŋ-kì ʔúŋ dèéthèé
 he-COLL alone=NEG2 and-CL other-COLL-DEF-TOP very many
 It's not these things only, there are so many others.

5.4. Mediativity: confirmative, mirative, yes/no-questions

The present section deals with the grammatical marking of epistemics. In Sandawe three epistemic clitics are used, which lend either a confirmative, mirative, or uncertainty reading to a clause. The confirmative marker expresses the speaker's certainty with regard to the information (s)he is presenting. The mirative marker expresses inferential knowledge and/or surprise by the speaker regarding the presented information. The yes/no-question marker expresses the speaker's uncertainty about the presented information: the speaker checks the information by asking the listener(s) for a (positive or negative) reply.

There is debate on the definition of categories such as evidentiality and mirativity (e.g. DeLancey 1997; 2001 and Lazard 1999). The description of the semantics of the three clitics in Sandawe shows that the markers are not pure evidential markers. Although several instances of confirmative and mirative marking may be interpreted as coding the source of evidence, the semantics of the markers are broader: they express the attitude of the speaker towards the information in an utterance. The term which is used here for the category that covers both mirative, confirmative, and yes/no question markers, is mediative (cf. Lazard 1956; 1999).

Sandawe has three mediative markers in the form of a clitic:

- The confirmative marker =gá-/=gáʔà (CONF)
- The mirative marker =gé(-) (MIR)
- The yes/no question marker =nè(-) (Y/NQ)

The confirmative marker has two forms: =gá is used when the clitic itself is part of a clitic complex; =gáʔà is used elsewhere. The mirative marker =gé and the yes/no-question marker =nè have one form for both uses.

Based on its semantics, the clitic =ké may be grouped in the mediative category as well. =ké expresses an indulgent attitude by the speaker, e.g.: ʔixi=sì kòsègà=ké 'This is how I thought it was (but it's not, so be it)'. The marker is not further included in the description, as its exact distribution is unclear.

Mediative clitics appear in verbal and non-verbal clauses. For verbal clauses with modality marking, mediative marking is possible in realis and non-realís clauses.

The position of the mediative markers is closely related to the position of the subject/modality markers (see section 5.2 on the syntax of subject/modality clitics).

In realis clauses the markers are part of a clitic complex in which the mediative marker is the first element and the realis subject clitic follows the mediative clitic (see section 5.7). The forms are illustrated in table 20. The vowel of the confirmative and yes/no-question markers takes over the quality of the following vowel.

Table 20: Mediative clitics with realis subject clitics

	=CONF=Realis Subject	=MIR=Realis SUBJECT	=V/NQ=Realis SUBJECT
1SG	gásí	gésí	nèsí
2SG	gñ	géy	nì
3	gáà	géà	nàà
3fSG	gásà	gésà	nèsà
1PL	gódò	géò	nòò
2PL	gée	gée	nèè
3PL	gá?à	gé?à	nà?à

The position of the clitic complex with the mediative marker in realis clauses is variable (cf. the variable position of the realis subject clitic, section 5.2.2). The complex may be attached to a verb, but also to other pre-verbal non-subject elements, as illustrated below.⁴⁰

hèwé màrà-s-ê-ts'é-ts'í **ŋ|wéé-gá=à**
 he (POSS.)be_knowledgeable-BE-3-NEG2-NMN2 do=CONF=3
 His lack of knowledge has done it.

ʔixí=gó=ò màtũndà-xì-súnj nèé-wà
 thus=CONF=1PL Matuunda-COLL-1PL stay:PL-PL2
 This is how we live with Matuunda.

hàdísi-ŋ ʔò-ʔò=gá=à tshèékì
 story-DEF here-LOC=CONF=3 end
 Here ends the story.

The position of mediative markers is different when the subject/modality marker is obligatorily attached to the verb (viz. non-realisation clauses, verbs of possession, adjectival verbs). In this case the mediative clitic has a fixed position after the verb.

⁴⁰ Note however that, although the realis subject clitic may appear more than once, mediative markers occur only once per clause.

ʔáʔá ʔiswé=sìʔi wàrèé-ŋ ɲ|ím-pô-sì=gáʔá
 INTJ now=TOP2 friend.m-ATT eat_meat-2SG-1SG:NR=CONF
 Ah, now, my friend, I will certainly eat you.

màná-wà-sí-sò=gáʔá kô màkàá màkàá
 know-PL2-BE-3PL=CONF just thing.RED
 They just know these things.

Non-verbal clauses with a mediative clitic are rare. In the following two examples the mediative clitic appears as the final element of the non-verbal clause. The confirmative clitic **-gáʔá** in the negative clause is attached after the negation marker.

hèwé-xé tshíyà !hùúk'ù ||wá=ts'é=gáʔá
 he-COLL all navel (POSS.)name=NEG2=CONF
 All these are not original names.

The example below consists of a non-verbal and a verbal clause. The non-verbal clause with the mirative clitic **-gé** has only one word:

thwí=gé thwí-xéʔé=gá=sà hík'í=yóóó
 bird=MIR bird-like=CONF=3fSG go:SG=EXCL
 It seems like a bird, it certainly moves like a bird!

The sentence below, which consists of two conjoined clauses, displays an exceptional form of mediative marking in a non-verbal clause. The confirmative marker occurs in a clitic complex with a realis subject clitic (1SG) and is attached to a free personal pronoun (1SG). The occurrence of the subject marker remains unexplained, because it is the only example in which a subject/modality clitic is attached to a full subject pronoun (cf. section 5.2).

tsí=gá=sí=yóóó wàré kòò mèé thâ
 I=CONF=1SG=EXCL friend CNJ2.2SG:OPT NEG:OPT run:SG
 It's me, my friend, don't run!

The remainder of this section discusses the semantics of the three mediative clitics. The yes/no-question marker **=nè** codes closed questions, for which a confirmative or negative answer is expected. The question expresses doubt by the speaker about the presented information. The speaker asks for a reply from the listener in order to check the proposition.

ɲ||ðó ||hàtá-ŋ swàkú-wà-ʔòŋ |àn=nì=ì
 child (POSS.)leg-DEF (POSS.)swell-PL2-INF see=Y/NQ=2SG
 Have you seen the swellings of the legs of the child?

hó ts'áá-nà níŋ-sùŋ kóyòwà=nè xàré ʔàsmânì
 who? (POSS.)home-DIR go:PL-1PL:NR Koyowa=Y/NQ or Asmani
 Whom will we go to? Koyowa? Or Asmani?

au ɡìŋɡíyò ɡáwà-tà-yê-ŋ ts'áá-nà xéé-sùŋ=nè
 or Gingiyo mountain-in-m-DEF (POSS.)home-DIR bring-1PL:NR=Y/NQ
 Or will we get him to Gingiyo, from the mountain?

The yes/no question may be accompanied by the general question marker =ná (section 5.5):

lááʔè pàà káʔá nì-ŋ tsí wàré=ná kóó-s-ê=nè
 here CNJ.2.3 that CNJ-CL I (POSS.)friend=Q be_present:SG-BE-3=Y/NQ
 Then Hare said: “Is my friend around?”

The following clauses contrast the semantics of the confirmative and mirative markers. The examples form a short report by the speaker on how he went back home after consuming alcoholic drinks at a bar. The speaker pictures the situation in which the addressee is imagined to be with him, following the same route as the speaker did before. The speaker is explaining what happened at certain points on the route.

ʔô=ɡá=sí ʔhíkʔ
 here=CONF=1SG SV.go:SG
 I went here

ʔô=ɡá=sí ʔ'útshúkù
 here=CONF=1SG SV.pass
 I passed here

ʔô=ɡé=sí ʔhíkʔ
 here=MIR=1SG SV.go:SG
 Apparently I went here!

!'àwé=ɡé=sí ʔô
 fall:SG=MIR=1SG here
 Apparently I fell here!

The speaker is certain about the information he is giving in the first two clauses. He remembers the route he took and where he passed. However, at a certain point he can't remember what he did. The information he gives is inferred from the footsteps and marks in the sand. This is where the mirative marker appears in the third and fourth clause.

The next example also contrasts the mirative and confirmative marker. The utterance describes what happened when Sandawe first encountered an airplane. The Sandawe word that was finally used for airplane was derived from Swahili *ndege* ‘bird, airplane’.

thwĩ=gé thwĩ-xé?é=gá=sà híkʼɪ=yóóó ?áká?á dégè
 bird=MIR bird-like=CONF=3fSG (SV.)go:SG=EXCL 3PL.that plane
 “It seems like a bird, it certainly moves like a bird!” So they said: “dege”.

Seeing an airplane in the air, people inferred that it could be a bird: ‘it seems to be a bird’. This clause contains a mirative marker. The evidence for the information in the first clause follows and is based on general knowledge: ‘it certainly moves like a bird’. This clause is marked by a confirmative clitic.

Based on the preceding examples, mediative marking could be analysed as evidentiality marking. The confirmative and mirative clitics would encode first-hand (or general) versus second-hand (or inferred) knowledge, respectively. The system of evidentiality marking would not be fully grammaticalized, since clauses may well appear without an evidential marker.

However, other instances of mediative marking show that the clitics encode more than the source of evidence only. The example below is a common start of a conversation when two people meet. The dialogue takes place before the actual greeting starts.

nèé-pò=gé
 be:SG-2SG=MIR
 So you are present?!

?èèè nèé-sì=gá?á
 yes be:SG-1SG=CONF
 Yes I am around!

In this dialogue the speaker in the first clause shows his surprise to meet the addressee. Rather than inference or second-hand knowledge, the use of the mirative clitic expresses the attitude about the information in the utterance. The information is true (‘you are present’) and first-hand knowledge, but the speaker wants to express his surprise about the facts.

In the second clause the other participant reconfirms the information of the first clause: ‘I am present indeed’. This clause is marked by the confirmative clitic. The mediative marker does not comment on the source of evidence for this utterance, but it gives information on the attitude of the speaker: he commits himself to the validity of the information he is presenting.

The same certainty about the information by speakers is expressed in the utterance below. It is a common way of announcing that the speakers leave the addressee.

níŋ=ǵó=ò=yóóó

go:PL=CONF=1PL=EXCL

We leave now, we really go now!

The confirmative marker is also used in affirmative clauses, which reply to yes/no-questions. A yes/no-question may indicate that someone is in doubt. Instead of a simple yes or no, the other may reply by using a clause with a confirmative marker. In this way the answer shows the speaker is certain about the information. The reply may be more convincing to the addressee.

|í-pò=nè

come:SG-2SG:NR=Y/NQ

Will you (really) come?

?èèè |í-sì=ǵá?à

yes come:SG-1SG:NR=CONF

Yes, I will definitely come!

Two further examples of mirative-marked clauses show the surprise by the speaker. Both clauses are part of the story of Hare and Rooster in which Rooster pretends to have left the house, leaving his body behind. In the following sentence Hare wonders if it can be true: did Rooster really cut off his head, as his wife said?

?èhèéé ?áráá=ǵé ŋ|í-ŋ kóó-s-ê, tsèè-n=sìŋ tshèé

INTJ real=MIR meat-DEF be_present:SG-BE-3 head-DEF=TOP2 not_be:3

Ehee, so it's true!? The body is here, but the head is not.

Later on, Hare tries to cut off his head and leave the body himself but dies. Rooster discovers his dead friend and is surprised that, apparently, his friend must be stupid.

hí-à ?ix-à ŋ|wé-ts'=ìŋ k'átí'é=ǵé=à

SUB:CNJ-3 thus=3 do-MID1=SUB be_stupid=MIR=3

If he has done this to himself, he must be stupid!

The examples show that the mediative category in Sandawe is more than the encoding of pure evidentiality. The mirative marker is used to express surprise about the information presented. The speaker almost wonders whether it is really true, but apparently, to his/her surprise, there is evidence that it must be true. Confirmative-marked clauses on the other hand express the certainty with which the speaker presents the information. At least for the speaker there is no doubt about the truth of the utterance.

5.5. The general question marker =ná

Apart from question words (section 8.1), Sandawe has two clitics to mark interrogatives:

- the general question marker =ná
- the marker =nè which codes yes/no-questions

The yes/no-question marker =nè is treated in section 5.4. The clitic is part of the set of mediative clitics.

The question marker =ná is used in most interrogatives and marks the clause as a question. It occurs both in questions with and without question words.

hótsò !'òówé-sò=ná
 what? find.3O-3PL:NR=Q
 What will they find?

gìngíyò=ná
 Gingiyo=Q
 (And what about) Gingiyo?

?ǎŋ hèéw=ná hóbè
 INTJ DEM1.m=Q what?
 Ah, what is this?

The general question marker is a clitic which attaches to different parts of speech such as noun phrases, pronouns, question words and verbs. The clitic is attached to the very end of the phonological phrase, after any clitics of the clitic complex. It is not necessarily part of the clitic complex, as opposed to the yes/no question marker, see section 5.7.

mmm, hàpú=sí?ǎ=ná, híkí=ì |ǎŋ
 INTJ you=TOP2=Q how?=2SG see
 Hmm, and, you, how do you see it?

phút! 'úmà=nè=ná
 peace=Y/NQ=Q
 Is there peace? (Introductory greeting)

The variable position of the general question marker in the clause indicates its relation to the marking of information structure. The presence of the marker on non-question words seems to lend extra prominence to the element. This analysis cannot explain all occurrences of the marker, for example the post-verbal position in **hótsò !'òówésò=ná** 'What will they find?'. In this case, the fact that it is attached to an element at the end of the clause may indicate that the marker is a clause-final

clitic with scope over the clause; as opposed to the phrase-final position in other examples where the marked phrase is given extra prominence.

5.6. The exclamatory marker =yóóó

The clitic =yóóó is a narrative device which is used by the speaker to attract the attention of the listener(s) to the utterance and to keep a story going.⁴¹ The marker is mainly used in story-telling, where it appears frequently.

The position of the clitic is almost free. The exclamatory marker is commonly used in combination with the narrative interjection **wétshá(ná)**. The narrative interjection is used either in between clauses (optionally followed by a co-ordinating conjunction), or after a co-ordinating conjunction, at the second position of the clause.

...kwàà tsèè-ŋ ||'íyà-sà-nà hík'ŋ wétsháná=yóóó sàà kwáŋ ...
 CNJ2.OPT.3 head-DEF dance-NMN3-DIR go:SG NARR:INTJ=EXCL CNJ2.3fSG be_shocked
 ... so that the head goes to dance." Hear! And she was shocked...

pàà wétshá=yóóó ŋ|úmsù-n-sù-ts'=à ká?á ...
 CNJ2.3 NAR:INTJ=EXCL wife-DEF-f-LOC=3 that
 Hear! So he said to his wife: ...

In clauses without narrative interjection, the exclamatory marker can be part of the clitic complex. In these instances it appears as the final element of the complex (after the subject clitic).

ní=ʔò=yóóó
 go:PL=1PL:OPT=EXCL
 Let's go!

k'wàw=â=yóóó
 be_ill=3=EXCL
 He is ill!

Most frequently however, the marker does not form a complex with the subject clitic and is put immediately after the verb.

⁴¹ The marker is consistently transcribed with three vowel symbols with high tones. Being a narrative device, the length of the marker is variable and may be extended by the speaker. The three vowel symbols therefore represent the extra long duration of the vowel. The pitch on which the particle is realized is also variable. This is represented in the orthography by an additional upstep: =^hyóóó.

?àà táné=yóóó màlám̀b̀d̀ h̀es̀-ìŋ
 CNJ2.3PL pull=EXCL big_trough they-POSS
 And they pulled their big trough!

p̀ì k̀og̀g̀or̀a?à m̀éé=ì síyé
 CNJ2.2SG axe big=2SG take:SG
 Then you take a big axe ...

h̀àà th̀éé m̀éé=ì p̀ì x̀òx̀d̀-sé=yóóó
 and tree big=2SG CNJ2.2SG hammer-FACT=EXCL
 and a big piece of wood and then you hammer!

h̀íy-à?à ní?ì=yóóó=ì?ì ?àà ẁétshá=yóóó ?àà !'d̀ówé
 SUB:CNJ-3PL go:PL=EXCL=SUB CNJ2.3PL NAR:INTJ=EXCL CNJ2.3PL find.3O
 When they go (to the beehive), hear!, they find it (smelling substance)!

Occasionally the exclamatory marker is attached to the verb before the subject clitic:

ǹǎŋ'gwé-áá búrí kh̀d̀ó=à !'d̀ówé=ì?ì d̀àrà=yóóó-ì
 cat-SFOC mouse (POSS.)home=3 find.3O=SUB wait=EXCL-3:NR
 If a cat finds the home of a mouse, he will wait!

Finally, there are two examples in which the exclamatory clitic is neither part of a clitic complex, nor attached to a verb.

!éé?é=yóóó p̀àà k̀òŋk̀or̀ì-ŋg-àà máx-óo=à t̀íngé-'kw-é
 so_then=EXCL CNJ2.3 rooster-DEF-SFOC be_smart-NMN=3 set_trap.3O-BEN-3O
 One day Rooster set him a trap of smartness.

ŋ||d̀ó h̀ééw=yóóó ts'ík'a=nè ts'ík'a-áá
 child DEM1.m=EXCL ts'ík'a=Y/NQ ts'ík'a-SFOC
 This child! Is it ts'ík'a's disease? It is ts'ík'a's disease.

The exclamatory marker serves to attract the attention of the listener(s). In narrative settings, the marker is a device that keeps the story going. When the exclamatory clitic is attached to a verb (without being part of a clitic complex), the marker may add intensity or duration to the verbal semantics. The verb that carries the exclamatory clitic is sometimes a repetition of the verb in a preceding clause.

d̀àrà=yóóó h̀àà t̀ú=tshéé
 wait.EXCL and come_out=NEG1.3
 He waited a long time, but it didn't come out! (he waited and waited!)

?àà púndús-ó=?à bààrà. púndúsé=yóóó
 CNJ2.3PL swim-NMN=3PL begin swim=EXCL
 And they began to swim. And they swam! (they swam and swam!)

pàà thā=yóóó nì-ŋ gélé |'ájǫ̀=à ||àkí nì-ŋ ʔiyé-ŋ 'māntshà
 CNJ2.3 run:SG=EXCL CNJ-CL baobab up=3 land and-CL stay:SG-VL VV.eat
 He ran! And landed on a baobab, and was eating (he flew for a long time, at high speed)

ts'úts'û-ŋg=ì síyé-ŋ pàràré=yóóó pù tété'kw-é
 charcoal-DEF=2SG take:SG-VL draw=EXCL CNJ2.2SG remove-3O
 You take the charcoal and you draw! Then you take it (the wood) out (you draw and draw, the whole outline)

5.7. The clitic complex

The clitics which are described in the previous sections, viz. subject/modality markers, negation markers, mediative markers, the general question marker and the exclamatory marker, are frequently combined to form a clitic complex. The clitic complex consists of two or three elements and attaches to a host. The subject/modality clitic is almost always part of the complex in verbal clauses. This clitic may be accompanied by a negation marker, a mediative marker, and/or the general question marker and exclamatory marker.

ǎ-sǎ=gâ?ǎ
 come:SG-1SG.NR=CONF
 I will certainly come!

mànà-ts'í-ì=ts'é=gâ?ǎ
 know-MID1-3:NR=NEG2=CONF
 It certainly won't be known.

nì-ŋ ká?ǎ hété'ǎ ŋ||èé-ká-á=nè=è
 CNJ-CL that there enter-COM-3O=Y/NQ=2PL
 And he asked: "Did you bring him in there?"

ní?ǎ=gó=ò=yóóó
 go:PL=CONF=1PL=EXCL
 Hear, we leave now!

The subject marker is a central element in the complex: the type of subject/modality clitic determines the variation in the order of the clitics. Furthermore, the type of subject marker determines the position of the complex in the clause.

Depending on the type of subject/modality clitic in the complex, two basic orders are distinguished. The first pattern is found when the subject/modality clitic is of the non-realis series:

Clitic complex pattern I:

-non-realis subject =NEG2 =CONF | MIR | Y/NQ =Q | EXCL

Non-realis clitic complexes always attach to a verbal host. The subject marker is the first element of the complex and may be followed by the negation marker =**ts'é**. The third position in the complex may either be the confirmative marker =**gâ?à**, mirative marker =**gè**, or the yes/no-question marker =**nè**, which exclude each other. The final position may be occupied by the question marker =**ná** or the exclamatory marker =**yóóó**, which do not co-occur in one clitic complex. These two clitics are distinct from the other elements, because both may also occur outside the clitic complex. When used outside the clitic complex, the markers may be attached to a different host in the sentence, e.g. **tsí wàré=ná kóósè=nè** 'Is my friend around?' (for more information, see also sections 5.5 and 5.6).

Pattern I also applies to clauses containing a special verb (section 6.7). The initial subject marker for these verbs is of a dedicated series of subject markers, which is formally almost identical to the non-realis series.

A variant of pattern I applies to the clitic complexes in negative *realis* clauses. The subject marker is incorporated in the negation marker (NEG1) on the first position:

=NEG1 =CONF | MIR | Y/NQ =Q | EXCL

Similar to pattern I, negative realis clitic complexes are always attached to the verb.

thàthùrù-nà níŋ-wà=tshó

Datooga-DIR go:PL-PL2=NEG1.3PL

They usually do not go to the Datooga. (Saying)

hàpú *rôn khé?é=*tshé

you POSS.voice hear=NEG1.1SG

I didn't hear your voice.

hèwé *||hôn-tà-nà khwàà=tshèé=gâ?à

he POSS.cave-in-DIR return=NEG1.3=CONF

He surely didn't return in his cave.

The second pattern summarizes the structure of clitic complexes with a realis, optative or hortative clitic.

Clitic complex pattern II:

=CONF | MIR | Y/NQ =subject/modality =Q | EXCL

One important difference between this type of complex and the non-realistic clitic complex is the position of the subject/modality marker, which occurs after the mediative marker.

Note that pattern II complexes only occur in affirmative clauses. Negative realistic clauses contain pattern I complexes; negative optative and negative hortative clauses have a free-standing negation marker (**mèé**), with an attached subject/modality clitic. No further clitics are attached to this negation marker.

The position of the clitic complex in the clause depends on the type of subject/modality clitic in the complex. Pattern I clitic complexes always attach to the verb. The position of the complex in realistic, optative and hortative clauses (pattern II) is more variable. It is determined by the syntactic properties of the subject/modality clitic which may be influenced by the grammatical marking of focus (see also section 5.2.2). The complex is attached to non-subject constituents. The complex is most frequently attached to a preverbal position (object constituents, postpositional phrases, or adverbs preceding the verb), but it can also occur on the verb. Compare the following examples:

Yixì=gó=ò màtũndà-xì-sún nèé-wà
 thus-CONF-1PL Matuunda-COLL-we stay:PL-PL2
 This is how we live with Matuunda.

mátó=nì=ì=ná 'sìyé
 gourd=Y/NQ=2SG=Q SV.take:SG
 Did you take *the gourd*?

mátó sìyé=nì=ì
 gourd take:SG=Y/NQ=2SG
 Did you take the gourd?

The difference between the preverbal and verbal position of the complex in the latter two clauses signals a shift in question focus: in the clause where the complex is attached to the object constituent (with the question marker **-ná**), the focus is on the object, the gourd. The clause with the clitic complex on the verb has no constituent focus.

Chapter 6

Verbs

The present chapter describes the verb in Sandawe. Subject/modality markers, negation markers and mediative markers are clitics which are not all necessarily attached to the verb. They are discussed separately in chapter Chapter 5.

Most verbs fit into the general verbal structure as presented below. A second group, which contains the zero verb stem for acts of exchange and the special verbs ‘to be somewhere’, ‘to have’, and adjectival verbs, have different formal properties. The verbs in the latter group are discussed in sections 6.6 and 6.7.

In order to give a general overview of the verb, the internal structure is presented schematically in a system of slots and fillers.

Table 21: The structure of the verb

ROOT STEM	EXTENDED STEM	PL	PRO	CASE##PRO	
(SG/PL)	RED IT FACT CAUS1 CAUS2 MID1 MID2 REC	wá / ?wá wà	OBJ	x` ká ts'è	OBJ

The description in the following sections is ordered from left to right, i.e. from the verb root to the verbal case markers. The structure of the verb root is described in section 6.1. A restricted number of verb roots and extended stems is paired and functions as singular/plural verb stem pairs. These pairs are also discussed in section 6.1. Sections 6.2.1 to 6.2.6 deal with extended verb stems. Reduplicated, iterative, factitive, causative, middle, and reciprocal stems are discussed. The description of causative 2 stems is followed by a comparison between the three stem types that introduce an extra agent into the argument structure of the verb: factitive, causative 1, and causative 2 stems. It is shown that the three can be distinguished semantically by the degree of active involvement of the arguments in the event.

Pronominal direct object marking is described in section 6.3. After a discussion of the object pronouns, the morphological processes by which they are attached to the verb are discussed. As these processes also apply to verbal plurality marking, this section is presented before the section on verbal plurality marking.

In section 6.4 verbal plurality marking is described, as by the plural object marker **-wá** / **-ʔwá** and by the plural non-direct object marker **-wà**. These two markers are mutually exclusive. Note that the position of these markers in table 21 is an abstraction: if **-wá** or **-ʔwá** appears in middle 1 and reciprocal stems, its position is *before* the extension. The non-direct object marker **-wà** excludes the use of a direct object pronoun, but it does occur before the verbal case markers **-ká** (comitative/instrumental) and **-ts'è** (applicative), in order to code the plurality of the oblique object. As a subject plurality marker or as a habitual marker, **-wà** is the final element in the verb form and can only be followed by a clitic.

Section 6.5 discusses verbal case marking. The verbal case markers **-x̣** (benefactive), **-ká** (comitative/instrumental), and **-ts'è** (applicative) introduce an (additional) object into the argument structure of the verb. This object is coded by the same object suffixes as used for direct objects.

6.1. Verb root

The verb root is the smallest morphologically analyzable form of the verb. The number of syllables in Sandawe verb roots ranges from one to four, but the majority of roots is monosyllabic or disyllabic. Certain monosyllabic and disyllabic roots undergo changes when they form the basis of the following verb forms: causative stems; middle stems; verbs with a direct object pronoun; verbs with the plural object marker. For a description of these changes, see sections 6.2.4, 6.2.5, 6.3, and 6.4.1, respectively.

Monosyllabic verb roots minimally consist of a consonant and a vowel (CV). C represents any consonant, and may be simple or complex (labialized). Verb roots that may be heard as having an initial vowel are analyzed as a sequence of a glottal stop and a vowel. The vowels can be short or long (CV, CVV). All vowel qualities (**i**, **e**, **a**, **o**, **u**) have been observed in CV roots. The following list illustrates this, showing all vowel qualities and types that occur in CV roots.

tû	come out, leave
thâ	run (SG stem)
 í	come (SG stem)
 'ô	sleep
khwàà	return
ŋ wéé	do
thòó	cross, fly
ŋ èé	enter, arrive
ŋ!á	grasp, catch

Monosyllabic verb roots of the form CVC are rare. The coda consonant may be a nasal or a glottal stop.⁴²

ʔǎŋ	go first, precede
!óŋ	snap, break (of wire)
níʔi	go (PL stem)
máʔà	be tired
!'ááʔà	move closer to

The following tone patterns have been observed for CV(C) verb roots: H, R, F, RL and L. The RL and L patterns are both attested by only one example: **!'ááʔà** and **khwàà** respectively. Note that a rising tone can only be realized on long vowels and vowels followed by a nasal consonant (see section 2.4 for more information on tone).

Disyllabic verb roots (CV(C)CV(N)) are common. The first consonant may be simple or complex (labialized). No complex, labialized consonants have been observed for the consonant position of the second syllable in the root (note that the labialized approximant **w** is a simple consonant, and hence may appear in this position). The first vowel V represents any voiced vowel. The second, final vowel can be short, long, or voiceless. Examples of disyllabic verb roots are given below:

síyé	take (SG stem)
ŋ àtí	come (PL stem)
khó 'òŋ	go round
sàyò	converse
xwánínŋ	make small holes and heaps of sand with feet
tátánŋ	go first, precede
 ááwé	pour empty
mànà	know
mèénà	love
mântshà	eat
 'úŋi	ripen
ʔàʔàté	die (PL stem)

⁴² The rare occurrence of CVN roots may have a historical explanation. Next to the occurrence of monomorphemic roots ending in a nasal, there is a clitic consisting of a nasal that marks a multi-verb construction at the end of the verb (see section 7.1 on the linker). Phonetically, a CVN root cannot be distinguished from a linked verb of the form CV-N. The final nasal consonant in verb roots may have disappeared gradually in order to distinguish linked verb forms from non-linked forms.

The rare occurrence of glottal stops in coda position is valid throughout the Sandawe lexicon.

The following tone patterns have been observed in disyllabic roots: HH, LL, R, F, LHL. The all L pattern (as in **sàyò**) is infrequent and the HLH pattern is absent, pointing towards a tendency for disyllabic verb roots to have either one high tone, or high tones uninterrupted by low tones.

CVCVCV roots are illustrated below:

dzàndzíké	put on one's back ⁴³
hándzókhà	attack
hánàkí	sit (PL stem)
hétékà	marry
héŋ àkí	enter (with many)
kòdnàwà	damage
kòsègà	think
k'úk'ùfé	shoot up
khókhòtà	invite
ùùùbé	be bruised
mòkòlà	greet
pérèrà	investigate, examine
pàràré	cure by sweeping a feather; sketch on the ground
ròmíyá	eat together with (food)
sàwà?àté	yawn
sòkíná	disturb, abuse
xàràté	gather rubbish
 'ósánkí	rest
!àkhíná	carry something small under your arm
 àk'áts'á	ask
?àanákhàà	set out to dry ⁴⁴

The examples show that a canonical structure for CVCVCV roots cannot be given. However, some observations can be made. There appear to be no restrictions on the occurrence of simple consonants. There are no examples of roots containing labialized consonants. Long vowels are rare. All vowel qualities occur, but the majority of roots have a final **a** or **e**.

Longer verb roots are very rare. Only one example has been found for a CVCVCVCV root:

phámbaráŋgé	resemble
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⁴³ This verb root appears to have originated in a noun root, cf. **dzàndzà** 'back' and the verbal case marker **-súkù** (causative 2).

⁴⁴ This root is very likely a Bantu loan, cf. Swahili *anika* 'set out to dry'

A restricted set of Sandawe verbs can be grouped in order to form pairs of suppletive singular/plural verb stems. The tables 22 and 23 below illustrate intransitive and transitive pairs, respectively:

Table 22: Intransitive singular/plural verb stems

Singular verb stem	Plural verb stem	Meaning
hàkítsʔ	hánàkí	sit
híkʔ	níʔ	go
ɬwéʔè	áatsʔ	come out suddenly
thâ	gùʔbé	run
thánù	gùʔbénàŋkí	run (centripetal)
tʰáásù	ɬaʔàté	die
ts'ókʔ	tʰʔŋ	jump up and leave hastily
ʔiyé	nèé	stay
í	ŋ àtí	come
!'áwé	!hòó	fall
ŋ íné	!'ásù	lie down
ŋ úmé	ɬéé	stand up(right) ⁴⁵
ŋ úméwà	ɬééwà	stretch legs, stroll

Table 23: Transitive singular/plural verb stems

Singular verb stem	Plural verb stem	Meaning
pèé	kàá	put
síyé	tʰ'áá	take
ts'òkʔ-sé	tʰ'ŋ-sé	scare away
è	khùʔù-sé, !hòó-kù	throw
ŋ únkhwè	ɬá-kù-wá	put on fire; plant; set upright (pillar)

⁴⁵ Note that two other pairs are related to this singular/plural stem pair:

ŋ úmé	(*ŋ úm-é)	ɬéé	(*ɬá-é)	'stand up(right)'
ŋ úméwà	(*ŋ úm-é-wà)	ɬééwà	(*ɬá-é-wà)	'stretch legs, stroll'
ŋ únkhwè	(*ŋ úm-khwè)	ɬákùwá	(*ɬá-kù-wá)	'put on fire; plant, set upright'

⁴⁶ Several verb forms have been observed as the plural counterpart for ||è. The factitive stem **khùʔù-sé** has often been mentioned. This stem may occur with extra plural marking(s): **khùʔùmsé**, **khùʔùmsímáá**. However, all these forms have a more specific meaning than the singular stem, i.e. 'throw away, discard'.

The causative verb stem **!hòó-kù** 'make fall (PL stem)' was also observed. It is derived from the intransitive plural verb stem **!hòó**.

The members of the pairs are generally simple stems, but there are some exceptions:

- There are two instances of middle 1 stems (cf. 6.2.5): **hàkítsʔ** ‘sit (SG stem)’ and **||áátsʔ** ‘come out suddenly (PL stem)’. For each stem, its counterpart is not a middle-marked verb.
- The plural verb stem **gìŋbénàŋkí** ‘run (centripetal) (PL stem)’ contains the reciprocal stem marker **-ŋkí**.
- The pair **ŋ||úmewà / íéewà** ‘stroll’ contains a fossilized plural marker **-wà**.
- The pair **ts’òkʔ-sé / tʔn-sé** ‘scare away’ consists of two factitive stems. These stems are derived from the intransitive pair **ts’òkʔ / tʔn** ‘jump up and leave hastily’.
- The plural verb stems **khùʔ-sé** and **!hòó-kù** ‘throw (away) (PL stem)’ are factitive and causative 1 stems, respectively.
- The suppletive plural counterpart of **ŋ||úŋkhwè** has a plural object marker **-wá**. **íá-kù-wá** cannot be used without the plural object marker (in order to function as a singular verb stem). Neither can the verb stem code plurality when the plural object marker is omitted. Therefore, the suppletive plural verb stem of **ŋ||úŋkhwè** is **íá-kù-wá**, rather than **íá-kù**.

Two stems could be considered as a suppletive pair: **ŋ||èé** ‘enter, arrive’ and **hén||àkí** ‘enter, arrive (with many)’. However, although **hén||àkí** can only be used with plural subject participants, **ŋ||èé** is used both with singular and plural subjects. Therefore the two verbs have not been included in the table of pairs above.

There are thirteen intransitive pairs, and five transitive pairs. The plural verb stem of intransitive verbs codes plurality of the subject argument. The example below contrasts singular and plural subject participants. The use of the singular versus plural stem is obligatory. Even though the subject clitic includes number marking, singular subjects can not appear with plural stems and vice versa.

ʔútè=sì **híkʔ** (* níŋ)
 yesterday=1SG go:SG
 I went yesterday.

ʔútè=ò **níŋ** (* híkʔ)
 yesterday=1PL go:PL
 We went yesterday.

The plural stem of transitive verbs codes plurality of the object participant. In the following examples, which contrast the singular and the plural stem, nominal plural marking is absent. The object **mátó** ‘gourd’ can only be interpreted as a plural object because of the use of the plural verb stem.

mátó=sì **ʔsíyé**
 gourd=1SG SV.take:SG
 I took a gourd.

mátó=sí **tí'áá**
 gourd=1SG take:PL
 I took gourds.

6.2. Extended verb stems

An extended stem usually consists of a verb root and a derivational extension, except for reduplicated stems, where the verb root is doubled. Not all examples of extended stems have an underived verbal counterpart. Those extended stems that do not have an underived counterpart are mentioned separately in the description. Like verb roots, extended stems function as a base for pronominal marking, either by direct object pronouns, or by verbal case markers in combination with an object pronoun.

Six types of extended verb stems are distinguished:

- 1) verb stems resulting from reduplication
- 2) iterative stems
- 3) factitive stems
- 4) causative stems (causative 1 and causative 2)
- 5) middle stems (middle 1 and middle 2)
- 6) reciprocal stems

A relative ordering of extension types depends on the possible combinations of the extensions on a single verb root. The maximum number of extensions in one verb form is two. As shown in the following table, the second extension in any combination is either a middle, a reciprocal, or a causative 2 extension.

Table 24: Combinations of verb extensions

ROOT-EXTENSIONS	Example	Meaning
VR-IT-MID	dùbù-mé-ts'í	hit oneself multiple times with fist
VR-FACT-MID ⁴⁷	hàlì-sé-ts'í	boast
VR-IT-REC	wèr-ìmé-ŋkí	visit each other repeatedly
VR-CAUS-REC	mántshà-k-wáŋkí	feed each other
VR-FACT-CAUS2	khwàà-sé-súkù	cause (someone) to return (sth)
VR-MID-CAUS2	ŋ ókhò-ts'í-súkù	cause to wash oneself
VR-REC-CAUS2	!'òó-kí-súkù	cause to meet each other

⁴⁷ There are only two examples of factitive middle stems in my data. No underived counterpart exists for the factitive stem **hàlìsé** 'praise'. However, Van de Kimmenade (1954) mentions more examples of factitive middle stems, see footnote 58, section 6.2.5.

The semantics of stems with two extensions are transparent. In some stems, the meaning is compositional and the second extension has scope over the verb root plus the first extension, e.g.:

wèré >
walk, visit

wèr-ìmé
visit-IT
visit repeatedly

wèr-ìmé-ɲkí
visit-IT-REC
visit each other repeatedly

However, the meaning of an extended stem with two extensions is not necessarily compositional as in the example above. Especially in iterative reciprocal stems, the iterative extension often has a more general meaning, coding plurality of action. In these verbs, the iterative is an inherent part of the reciprocal verb. This occurs in iterative reciprocal stems that do not have a simple reciprocal stem (indicating a single occurrence of the event vs. multiple occurrences), e.g. **hàmà-mé-ɲkí** ‘insult each other’ (* **hámá-ɲkí**). For more information, see section 6.2.6 on reciprocal stems.

It is difficult to make a relative ordering of extensions based on the various possible combinations. Therefore the order in which the various extended stems are described is based on both morphological, syntactic and semantic criteria. First, reduplicated stems are described. Then iterative stems are described. Factitive and causative stems are dealt with one after the other, because they both introduce an extra argument into the argument structure of the verb. Middle and reciprocal stems are described in the final two sections because of their final position in extended stems with two extensions.

6.2.1. Verb stems resulting from reduplication

Reduplicated verb stems are the result of a derivational process by which a verb root is fully copied. Reduplication is a productive means of derivation in Sandawe. The following examples show reduplicated verb stems, with their corresponding source forms:

kêkê	ascend here and there	<	kê	ascend
ɸíkꞤɸíkꞤ	get stuck here and there	<	ɸíkꞤ	get stuck
tútú	go out here and there	<	tú	go out
ts’óŋgórꞤts’óŋgórꞤ	jump up and down	<	ts’óŋgórꞤ	jump
wèréwèré	stroll, walk here and there	<	wèré	walk, visit

ʔiyéʔiyé	stay some time (SG)	<	ʔiyé	stay (SG)
 'ósánkí+'ósánkí	rest a bit	<	 'ósánkí	rest
ŋ èéŋ èé	enter here and there	<	ŋ èé	enter

The tone pattern of the original root is retained on both parts of the reduplicated form and there is a downstep in between the two parts, which is only audible and marked if no low tone precedes or follows.

The reduplicated stems express a prolonged action, which may be continuous or not, and which is low in intensity.⁴⁸ The following examples illustrate the prolongation of the event:

mântshàmântshà=kò

eat.RED=2SG:OPT

Eat a bit more / Just continue eating! (used when a guest is hesitating or intending to stop eating)

ʔô-ʔô ʔiyéʔiyé=ʔpô

here-LOC stay:SG.RED=2SG:NR

Will you stay here for some time? (asked after the arrival of the addressee)

The action may be interrupted, but the sum of intervals at which the action is carried out is perceived as one event.

ts'òŋgórŋ	>	ts'òŋgórŋts'òŋgórŋ
jump		jump.RED
jump		jump up and down

The action is often carried out with low intensity. Therefore translation equivalents often contain adverbs of degree ('a bit', 'just', 'here and there').

ʔádúkùʔádúkù-sún=kò

help.RED-1PL=2SG:OPT

You help us a bit, here and there.

The event as expressed by a reduplicated stem is not necessarily one action, which is carried out by each participant in the event. Reduplicated stems are often used with plural participants, in which case the verb refers to the sum of several (consecutive or simultaneous) actions, as carried out by the individual participants.

⁴⁸ Note that reduplicated verbs in Swahili are semantically similar. Ashton (1944:316) notes that reduplicated verbs in Swahili are used "to express continuous action or state", or "to lessen or to modify the force of a word". Loogman (1965:145) uses the label *frequentative verbs* for Swahili reduplicated verbs, which indicate "the repetition of an action at close intervals, or in such a way that the action is practically continuous over a period of time".

ʔòò mèé ʔíkʔíkʔ
 CNJ2.1PL:OPT NEG:OPT get_stuck.RED
 That we do not get stuck (in our language)

The following examples illustrate the difference in context for the use of the verb root and the reduplicated stem. While the verb root **wèré** focuses on the aspect of going (somewhere) by foot, the reduplicated stem **wèréwèré** stresses the action of strolling: walking here and there, without a specific goal.

kwa mtoro-tè=sì wèré
 Kwa Mtoro-area=1SG (SV.)walk
 I walked to Kwa Mtoro.

wèréwèré=sì ʔíyè-ŋ
 walk.RED=1SG SV.stay:SG-VL
 I am walking around.

6.2.2. Iterative stems

Iterative stems contain the iterative suffix **-imé** or a short form of it. Most iterative stems are derived from verb roots by placing the full suffix after the verb root.

If the root-final vowel is **e**, this vowel is replaced by the suffix-initial vowel **i**. Root-final tones are replaced by the initial low tone of the suffix.

làʔàd-ìmé	show multiple times	<	làʔàdê	show
tʔ'íŋkh-ìmé	kick multiple times	<	tʔ'íŋkhé	kick
tʔ'íth-ìmé	slaughter multiple times	<	tʔ'íthé	slaughter
xàd-ìmé	scrape out multiple times	<	xàdé	scrape out

If the root-final vowel is **i**, it merges with the suffix-initial **i**. The low tone of the suffix replaces the high tone of the root.

tàŋk-ìmé	chase away multiple times	<	tàŋkí	chase away
 -ìmé	come (SG) multiple times	<	 í	come (SG)
 'àk-ìmé	descend multiple times	<	 'àkí	descend

If the root ends in **a**, the short form of the suffix is used: **-mè**. Thus, the suffix-initial vowel **i** is absent, but the low tone remains and replaces the root-final high tone.

hàmà-mé	insult multiple times	<	hámá	insult
hònà-mé	harvest multiple times	<	hóná	harvest honey
ʔisà-mé	steal multiple times	<	ʔisá	steal

Second, when non-human plural objects are marked on the verb, tonal and segmental changes occur. The initial low tone of the iterative morpheme becomes high. Moreover, the iterative marker $\rightarrow\text{imé}$ merges with the plurality marker $-\text{wá}$ and the third person object suffix $\acute{\text{e}}$ into one morphological complex: $\rightarrow\text{imé} + -\text{wá} + -\acute{\text{e}} > -\text{ímáá}$.⁴⁹ Note that in the morphological complex, the object suffix $-\acute{\text{e}}$ is assimilated to the vowel **a** of the plural object marker.

!hènggé > !hèng-ímáá sharpen

rògó=à !hèng-ím-á-á
 knife=3 sharpen-IT-PL1-3O
 He sharpened knives.

Sandawe speakers of Farkwa attribute the morphological complex $-\text{ímáá}$ to the variety of Sandawe spoken in the central and western part of Usandawe (i.e. Kurio/Kwa Mtoro up to Ovada). In Farkwa, a different variant is used that causes no segmental and tone changes to the iterative stem:

rògó=à !hèng-ímé-?éwá-á
 knife=3 sharpen-IT-PL1-3O
 He sharpened knives.

There are no changes when other object pronouns are suffixed to the iterative stem. The examples below illustrate a second person singular object, and a third person plural human object, respectively. Contrast these to the examples above.

tàŋkí > tàŋk-ímé chase away

tàŋk-ímé-pá=à
 chase_away-IT-2SG=3
 He chased you away.

tàŋk-ímé-ŋíng=à
 chase_away-IT-3PL=3
 He chased them away.

Iterative stems basically express multiplicity of action. The event that is described is seen as the sum of several actions.

⁴⁹ The following historical development is assumed for this complex. The final vowel $\acute{\text{e}}$ of the iterative morpheme $\rightarrow\text{imé}$ was originally a general singular object marker. Thus, the plural marker and object marker $-\text{wá-á}$ were suffixed to $\rightarrow\text{im-}$, replacing the singular object marker. The sequence $-\text{imwáá}$ is realized as $-\text{ímáá}$, because of the phonotactic restriction that labial consonants cannot be labialized.

gélé-áá | -ímé
 Gele-SFOC (SV.)come:SG-IT
 Gele came repeatedly.

mòkhóngón-àà | ʔíṅkh-ímé-sé
 bed_bug-SFOC (SV.)bite-IT-1SG
 Bed bugs⁵⁰ have bitten me over and over again!

In many iterative stems there is an inherent repetition of the action:

kòʔ-ímé	peg in
sàxù-mé	mow
tí'íṅkh-ímé	kick
tí'òṅg-ímé	stab, pierce
xàd-ímé	scrape out

The underived counterparts of these iterative stems are used either to indicate one particular instance of the action (e.g. 'stab once'), or to generalize the event without reference to the multiplicity of action (e.g. '(start) mow(ing)!').

There is a clear difference between the semantics of iterative stems and the semantics of reduplicated stems. Iterative stems express multiple occurrences of an action. Reduplicated stems on the other hand describe prolonged events, which are generally carried out with low intensity. However, the use of the two stem types reveals that there is semantic overlap in certain contexts. The following example illustrates this. The clause describes the busy activities around a train after its arrival: people are getting on and off the train at different places and moments.

ṅ|òmósò hísôn-sò ʔàà kékê, hísôn-sò ʔàà ||'àk-ímé
 person.PL other-PL CNJ.3PL ascend:RED other-PL CNJ.3PL descend-IT
 Some people got on, others got off

The verb **||'àk-ímé** 'descend' can be compared to its antonym, the verb **kékê** 'ascend'. In the case of getting off the train, the event is described by an iterative stem. In order to describe the people that get on, a reduplicated root is used. Except for the direction of the movement, both events are similar in nature: actions of ascending and descending are carried out multiple times by different individuals and at several places. Regardless of this, an iterative stems and a reduplicated stem are used next to each other in this context. It can therefore be concluded that in certain contexts the boundaries between the semantics of iterative stems and reduplicated

⁵⁰ In the Sandawe utterance, the lexical subject does not indicate plurality, nor does the verb indicate participant plurality. In the translation we try to reflect this unspecified mass of bed bugs. However, this requires a plural subject in English.

stems are vague. Especially if plurality of action is combined with plurality of participants, the domains that are covered by the respective stem types overlap.

6.2.3. Factitive stems

Factitive stems are characterized by the factitive morpheme **–sé**. Two groups of factitive stems are distinguished:

- a) derived factitive stems
- b) lexical plural action verbs with an obligatory factitive stem marker

The general formal properties of the two groups are the same. For both groups the factitive morpheme **–sé** has a high tone, while the preceding tones are all low. Syntactically, the verbs in both groups are transitives, with at least an agent subject and a patient object. On the semantic level, there are differences between the two groups. Therefore the groups will be treated separately here.

a) Derived factitive stems

Factitive stems in this group are derived from an intransitive verb. Consider the following examples:

dzàà–sé	cause to be contiguous	<	dzáá	be contiguous
gwèʔè–sé	hurt (tr.)	<	gwèʔè	be hurt, suffer
gòtí'òxì–sé	remember	<	gòtí'òxì	jump to mind ⁵¹
hòk'á–sé	warm up	<	hòk'á	be hot
khwàà–sé	return (tr.)	<	khwàà	return, go back
ʔík'í–sé	stick in	<	ʔík'í	be stuck
nàʔà–sé	inflame, make burn	<	nàʔà	burn (intr.)
ts'áʔà–sé	dip into liquid	<	ts'áʔà	be dipped into liquid
ts'òk'í–sé	scare away (SG stem)	<	ts'òk'í	jump up (SG stem)
tí'èʔè–sé	make turn, turn (tr.)	<	tí'èʔè	turn (intr.), deviate
 'áʔà–sé	avoid, block	<	 'áʔà	be blocked

The following list illustrates factitive verbs for which there is no underived counterpart. They are considered as group (a) factitive stems.

hàʔì–sé	praise
hù 'ù–sé	taste from a dipped finger
khìn–sé	send

⁵¹ The verb root **gòtí'òxì** 'jump to mind' has been translated as an intransitive verb. However, as we only recorded it out of context, no claims about its syntactic and semantic structure can be made here.

khwàʔà-sé	pick from plant
xòò-sé	taste by sipping
xòtʔ'ò-sé	push to get moving

Factitive stems in this group have a special plural verb stem.⁵² In order to form the plural factitive verb stem, **m-** is inserted before the factitive morpheme **-sé**.

dzàà-sé	>	dzàà-m-sé	make touch (PL stem)
hù 'ù-sé	>	hù 'ù-m-sé	taste from a dipped finger (PL stem)

According to general morphophonological rules, all voiceless (parts of) vowels before **m-** become voiced. Thus, voiceless vowels become voiced vowels:

hàʔ-sé	>	hàɦ-m-sé	praise (PL stem)
ɦkʔ-sé	>	ɦkʔ-m-sé	stick in (PL stem)

Similarly, the voiceless release of a glottal stop is realized as a full, voiced vowel before **m-**:

nàʔà-sé	>	nàɦà-m-sé	inflame (PL stem)
tʔ'èʔè-sé	>	tʔ'èɦè-m-sé	(make) turn (PL stem)

One stem has a suppletive plural stem form:

ts'òkʔ-sé	-	tʔ'ɦn-sé	scare away (SG - PL stem)
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The semantics of factitive stems are understood best by comparing the factitive stem to its underived counterpart. In the factitive derivation an agent role is added to the argument structure of the verb. The underived form is an intransitive verb in which a subject (Y) undergoes the event. In the factitive stem, an agent (X) has been added to the event. The agent is realized as the subject of the factitive verb and causes the patient (Y), now object, to undergo the event. This is illustrated schematically below for two derivations of factitive verbs:

hòk'á	>	hòk'á-sé
Y be hot		X cause Y be hot = X warm up Y
ɦkʔ	>	ɦkʔ-sé
Y be stuck		X cause Y be stuck = X stick in Y

⁵² Note that this is not the case for factitive stems in group b.

Factitive stems are basically causative verbs in which an agent causer has been added to an intransitive verb. The causee (Y) undergoes the event, just as it undergoes it in the underived form. The defining characteristic of the factitive stem is the presence of an agent subject (X) that actively carries out the event. The involvement of the agent subject of factitive verbs is different from that of causative verbs. See section 6.2.4 for a comparison.

The use of the plural factitive stem depends on plurality of the object and plurality of the action. The plural factitive stem is obligatorily used with factitives with non-human third person plural and collective objects. In such cases, the plural factitive stem is followed by the plural object marker and the object suffix:

hàáxwè **ŋ||ókó-xê-ŋ** **hàŋ-m-sé-wá-á=sà**
 DEM2.COLL child.PL-COLL-DEF praise-PL-FACT-PL1-3O=3fSG
 She has praised that group of children.

The plural factitive stem may also code human plural objects (for third person: definite human objects) but this is not obligatory. The plural factitive stems rather code plurality of the action than plurality of the object participants. This specific use of the plural factitive stem marker **-m** shows some functional resemblance to the iterative marker **-mɛ́**, when it is used as a means of coding plurality of action. See also section 6.2.2 on iterative stems.

b) Lexical plural action verbs with an obligatory factitive stem marker

The second group of factitive stems contains lexical plural action verbs (or lexical pluractionals), which have an obligatory stem marker **-sé**. All tones before the stem marker are low. Verbs in this group can be recognized by the doubling of one or two syllables before the factitive marker. Consider the following examples:

ɖɖiŋ-sé	prop, support
khàŋkhàŋ-sé	roll
khùkhùŋ-sé	beat out, shake out
phèphèŋ-sé	winnow
ts'axùts'axù-sé	give a light beating
ŋ òròŋ òrò-sé	strip off (grains from maize cob)

All examples of lexical pluractionals with an obligatory factitive stem marker show the same pattern of word formation. This pattern can be summarized in two templates. Subscript letters indicate doubling.

[CV]_i[CV]_i-ŋ-sé
 [CVCV]_i[CVCV]_i-sé

Note that the factitive stem marker is obligatory: neither CVCV nor CVCVCVCV can function as an independent verb root.

The source form for the doubling can be defined phonologically (one or two syllables), but this form does not function as an independent root itself. In other words, source forms (e.g. **di**, **khàŋ**) do not occur in isolation. There are a few exceptions, e.g. compare **ts'ats'aŋsé** 'soak' to the noun root **ts'a** 'water'; similarly, Van de Kimmenade (1954) notes the verb root **|horon** "se trouer", to be compared to the factitive stem **|hòrònŋ|hòròŋsé** 'make holes on'.

The source form for doubling is either a monosyllabic or a disyllabic string. Therefore the resulting number of syllables before the factitive marker is two or four. First, factitive stems are illustrated that have four syllables before the stem marker:

lòk'òlòk'ò-sé	shake repeatedly
mà 'àmà 'à-sé	crush
xòt 'òxòt 'ò-sé	push around

If the number of syllables before the stem marker is two, a glottal stop is inserted before the morpheme **-sé**.

khìkhìʔ-sé	gather
màmàʔ-sé	soothe
ŋ!òŋ!òʔ-sé	beat repeatedly

The following verb, a rare example of a monosyllabic source form which is a root itself (**ts'a** 'water'), shows that the glottal stop is not part of the source form, as one might assume. The glottal stop is therefore best considered as inserted between the doubled form and the factitive morpheme.

ts'ats'aŋ-sé	<	ts'a
soak-FACT		water

The semantics of the verb in group (b) center around pluractionality. The lexical pluractionals describe events that inherently consist of multiple similar sub-events. For example, winnowing (**phèphèʔsé**) involves multiple actions of throwing up the grains, in order to remove the chaff. Similarly, giving a light beating (**ts'axùts'axùsé**) is not a single slap; it usually involves multiple beatings. Stripping off grains (**ŋ|òrònŋ|òròsé**) from a cob is done in multiple sub-actions. All verbs are transitives in which the agent subject carries out the action on a patient object. Note that the verbs in group b have an obligatory factitive marker and therefore their semantic properties cannot be compared to an underived form.

Contrary to the factitive stems in group (a), there is no special plural stem for the factitive verbs in group (b). Thus, human plural objects are regularly marked by a plural object suffix (e.g. **-sún**, **-ʔín**).

Similarly, non-human plural objects are only marked by suffixing **-wá-á** to the stem. Alternatively, a complex plural form can be used, which consists of the iterative morpheme plus the plural object marker: **-ím-á-á** (see also iterative stems).

màmàʔà-sé=sún-sà, **màmàʔà-sé-ʔín=sà**
 soothe-FACT-1PL=3fSG soothe-FACT-3PL=3fSG
 She soothened us, she soothened them.

mà|'àmà|'à-sé-wá-á=sà
 crush-FACT-PL1-3O=3fSG
 She crushed them.

mà|'àmà|'à-s-ím-á-á=sà
 crush-FACT-IT-PL1-3O=3fSG
 She crushed them.

6.2.4. Causative stems

Causative stems are characterized by a causative extension. Most causative stems are derived forms that have a corresponding form without the causative marker. There are two causative extensions:

- causative 1: **-kù**
- causative 2: **-súkù**

The causative 2 morpheme is the most productive extension. It may be used to derive causative stems from both verb roots and extended stems. Next to the formal differences between the two causative stem types a comparison at the end of this section shows that they are also semantically different.

Causative 1 **-kù**

The causative extension **-kù** is not a productive derivational extension. Causative stems with the extension **-kù** are infrequent when compared to the causative stem marker **-súkù**.

The following list shows causative 1 stems. The underived verb root is given in the column on the right. Disyllabic roots that can undergo clipping, have the clipped form before the causative marker (see also section 6.3).

kê-kù	let ascend, load up	<	kê	ascend
mântshà-kù	feed	<	mântshà	eat

thòó-kù	move (tr.)	<	thòó	move / jump over
ts'á-kù	drench	<	ts'áá	drink
íŋ-kù	make (a) deep (hole)	<	ímé	be deep
ǒŋ-kù	spoil (food) by burning	<	òmé	be burnt
'á 'á-kù	dress	<	'á 'á	wear
'èé-kù	wake up (tr.)	<	'èé	examine, watch
 'íŋ-kù	let ripen	<	 'íné	ripen
ŋ íŋ-kù	lay down	<	ŋ íné	lie down (SG stem)
ŋ úŋ-kù	put upright	<	ŋ úmé	stand up(right)

A few verbs in Sandawe contain a final string **kù**. This string cannot synchronically be identified as a causative extension, because no verb root without **kù** exists. Verbs of this kind are probably lexicalized causatives.

tí'ákù	remove, dig out
?ádúkù	help

The usual voiceless realization of the final vowel **u** of the causative extension changes to labialization of **k** when a vowel follows. The vowel is deleted when the approximant **w** follows. In both environments, the low tone of the causative extension is preserved and has a lowering effect on any following high tones.

kê-kù-é=sí > [kê^hk^wésí]
ascend-CAUS1-3O=1SG
I loaded it up

kê-kù-wá-á=sí > [kê^hk^wáásí]
ascend-CAUS1-PL1-3O=1SG
I loaded them up

Note that **-^hkwé** (causative extension plus third person object suffix **é**) is homophonous with the verbal benefactive marker plus the third person object suffix, see 6.5.1.

Causative stems may be derived from intransitive and transitive verb roots. The causative derivation adds an extra argument to the argument structure of the verb. Thus, intransitive verbs become transitive with the causative extension, and transitive verbs become ditransitive. The agent subject is the causer of the event that is expressed by the causative verb. The causee is the primary object of the event. It undergoes the causation of the event. In the following example, the agent subject 'she' causes the object, **ŋ||ðó** 'child', to lie down.

ŋ||ðð-n=sà ŋ||íŋ-⁴kw-é
 child-DEF=3fSG lie_down-CAUS1-3O
 She has laid the child to rest.

Ditransitive causatives have a secondary object. The primary object of a ditransitive causative is the causee of the event. The secondary object is the undergoer of the event itself. In the following example, the primary object **ŋ||ðð** ‘child’ is caused to eat **núwá** ‘mash’, the secondary object of the clause.

ŋ||ðð=sí núwá=sí ⁴mântshà-kù
 child=1SG mash=1SG SV.eat-CAUS1
 I feed the child mash.

Secondary objects of causatives may be omitted, but primary objects are obligatory. The following example shows a grammatical utterance of a ditransitive causative, in which the secondary object (the thing eaten) has been omitted.

ŋ||ðð=sí ⁴mântshà-kù
 child=1SG SV.eat-CAUS1
 I feed the child.

If the secondary object is inserted, but the primary object (the eater) is omitted, the utterance becomes unacceptable, e.g.:

* **núwá=sí ⁴mântshà-kù**
 mash=1SG SV.eat-CAUS1
 * I feed mash

The subject of **kù**-causative stems is actively involved in the event. The (primary) object is not. Thus, the agent subject carries out an action on the patient object, rather than causing the object to actively carry out an action. Translations should reflect the active involvement of the subject in the event.

mântshàkù feed (rather than: cause to eat)
ŋ||íŋkù lay down, lay to rest (rather than: cause to lie down)

A final note concerns the verb **ŋ||íŋkù** ‘lay down’. While the underived singular subject form **ŋ||íné** has a suppletive plural subject stem **!⁴ásí**, there is no suppletive form for plural objects of the causative stem (* **!⁴ásíkù**). Rather, the plural object marker **-wá** is used, which results in **ŋ||íŋ⁴kwá**. Compare this to the suppletive stems **ts’ók³** / **t³’ŋ** ‘jump up and leave hastily (SG / PL subject stem)’, which have corresponding suppletive forms for the derived factitive stems: **ts’ók³-sé** / **t³’ŋ-sé** ‘scare away (SG / PL object stem)’.

Causative 2 –súkù

The causative morpheme –súkù is a productive extension in the formation of causative stems. Causative stems can be derived from verb roots and stems. The following examples illustrate causative verbs that are derived from both intransitive and transitive verb roots.

ŋ!èé–súkù	make laugh	<	ŋ!èé	laugh
k'áj!á–súkù	cause to / make disappear	<	k'áj!á	disappear
mèénà–súkù	cause to love	<	mèénà	love
 'óó–súkù	cause to rain	<	 'óó	rain

The following examples show derived verb stems that serve as a basis for the causative derivation. They contain a causative extension after the middle marker and after the reciprocal marker, respectively:

hàkí–ts'ǎ–súkù	cause to sit down	<	hàkí–ts'ǎ	sit down
!'òó–kí–súkù	cause to meet each other	<	!'òó–kí	meet each other

Two types of exceptional occurrences of the causative 2 extension are noteworthy. In both cases, the extension –súkù is suffixed to a noun root. First, –súkù occurs on noun roots that denote ingredients. The resulting form is a transitive verb that expresses that the incorporated noun root is added to something in preparation. The object in preparation is the object of the verb. It is marked as a verbal object suffix. Examples are rare.

!hùmé–sú'k–é–sǎ < **!hùmé** 'flour'
 flour-CAUS2-3O=1SG
 I add flour

sukari–sú'kw–é–sǎ < **sukari** 'sugar'
 sugar-CAUS2-3O=1SG
 I add sugar

Second, –súkù is used with noun roots that denote periods of time. The resulting verb form expresses that its subject finds itself in a particular period of time. This use of the causative morpheme needs further investigation, because there is no causative relation between the subject and the time of the day.

ŋ!ê–súkù < **ŋ!ê** 'day(time)'
 daytime-CAUS2
 go on till next morning, continue through night, make daytime

gòlòbè-súkè=gí=ì < **gòlòbè** ‘late afternoon’

late_afternoon-CAUS2.3O=CONF=2SG

You have come in the late afternoon! (you caused it to be late afternoon?) [uttered when the addressee arrived in the late afternoon to help doing work with the community]

The morpheme **-súkù** undergoes the same morphophonological changes as the causative marker **-kù**, but there is more variation. When a vowel or **w** follows, **-súkù** becomes **súkw**.

||'éé-súkù-é=sí > **[||'éésúk^wésí]**

pay_brideprice-CAUS2-3O=1SG

I made him pay bride price.

[hímé-súkù-wá-á=sí > **[|hímésúk^wáásí]**

sing-CAUS2-PL1-3O=1SG

I made them sing.

There is variation in the realization of the labialized consonant when the causative morpheme is combined with the third person singular object suffixes **-é** and **-ésú** (feminine). The consonant is sometimes clearly labialized, and sometimes no labialization is heard at all. The following variants are both acceptable:

||'éésúk^wésí ~ ||'éésúkésí

I made him pay bride price

Another instance of variation is found for the full paradigm of causative verbs that carry an object suffix. As the following paradigm shows, **à** may be inserted between the causative morpheme and the object suffix. The table shows all the variants. The **a**-forms are shown in the middle column, the other variants are shown on the right. Note that the causative verbs with third person singular objects have three variants in total, an **a**-form, one form with a labialized causative marker, and one with a non-labialized causative marker.

ŋ!èé-súkù-**OBJ**=sà
 laugh-CAUS2-**OBJ**=3fsg
 she causes (OBJ) to laugh

	laugh-CAUS2- OBJ -3fsg	a-form	
1SG	ŋ!èé-súkù-sé-sà	ŋ!èésúkùwàsésà	ŋ!èésúkùsésà
2SG	ŋ!èé-súkù-pó-sà	ŋ!èésúkùwàpósà	ŋ!èésúkùpósà
3O	ŋ!èé-súkù-é-sà	ŋ!èésú'kwáásà	ŋ!èésú'kwésà, ŋ!èésú'késà
3fsg	ŋ!èé-súkù-ésú-sà	ŋ!èésú'kwáásúsà	ŋ!èésú'kwésúsà, ŋ!èésú'késúsà
1PL	ŋ!èé-súkù-sún-sà	ŋ!èésúkùwàsúnsà	ŋ!èésúkùsúnsà
2PL	ŋ!èé-súkù-sín-sà	ŋ!èésúkùwàsínsà	ŋ!èésúkùsínsà
3PL	ŋ!èé-súkù-ŋin-sà	ŋ!èésúkùwàŋinsà	ŋ!èésúkùŋinsà
PL-3O	ŋ!èé-súkù-wá-á-sà	ŋ!èésú'kwáásà ⁵³	ŋ!èésú'kwáásà

The **a**-forms show two homophonous verb forms. ŋ!èésú'kwáá may refer to both a third person singular object and to a non-human and/or non-specific plural object form.⁵⁴

The insertion of **à** cannot be explained satisfactorily. The presence of the vowel in the full paradigm points towards a kind of causative stem building device. An argument against this explanation is that **à** is never present when the causative extension is the final element of the verb. In other words, ŋ!èésúkùwà is ungrammatical as an isolated verb form. The vowel is considered as an optional suffix support.

Causative stems have an additional argument as compared to their non-causative counterparts. The subject of a causative verb causes the event to take place. The primary object is the causee of the event. If there is a secondary object, it is the undergoer of the event.

Secondary objects are only rarely marked by a verbal object pronoun. Usually, the secondary object is either implied, or marked by a noun phrase or independent pronoun. Ditransitive verbs with two object pronouns are exceptions (see for example **khwàà-sé-é-súk-é** 'cause him to return *it*' below). Constructed ditransitive causatives with a first or second person secondary object pronoun were rejected by speakers, e.g.:

⁵³ The realization of the **a**-form is the same as the variant in the right column. The expected realization ŋ!èésúkùwàwáásà does not occur.

⁵⁴ There may be a slight difference for the two forms in the duration of the vowel **aa** (the singular object form may well be short), but we have not been able to hear a difference between the two.

* **mèénà-sé-súk-ésw=à**

love-1SG-CAUS2-3fSG=3

He made her love me

The causer (subject) of the event in **súk**-causatives has a certain distance to the event. It causes the event to happen, but there is no direct, active involvement in the action itself.

ŋ||ókhò-ts'i-súk-wá-á=sà

wash-MID-CAUS2-PL1-3O=3fSG

She made them wash themselves (e.g. told them to do so).

The exact semantic roles of the participants are understood best when **súk**-causatives are compared to other derived verbs that have an additional agent. First, a **súk**-causative is compared to a factitive stem. The underived verb root is shown in the following example. It only has a subject argument in this clause.

khwà=á

return=3

He returned

The derived causative stem has an additional argument, which is syntactically the subject. The agent subject of the intransitive verb **khwà** has become the object of the causative stem **khwààsúk**. The subject is not actively involved in the returning of the object, it is just the causer of the event. The object on the other hand is the actual agent of the action of returning.

khwàà-súk-é-sí

return-CAUS2-3O=1SG

I made him return

This can now be compared to the factitive stem, in which the object has no control over the event: it is only the undergoer of the action of returning. The specific context of this clause determines that the object will not be able to carry out the action itself.⁵⁵

khwàà-sé-é=kwè ts'áá-nà

return-FACT-3O=OPT.2PL home-DIR

You get him back home!

When the factitive and causative extensions are combined, a ditransitive verb results. Again, the object of the factitive has no control over the event, but the object

⁵⁵ See Text “The Hospital” in the appendix: The object referred to is ill and has swollen legs. He should be returned home if treatment fails.

of the causative does. The subject is only the causer of the event of returning, the object of the causative carries out the action of returning.

khwàà-sé-é-sú'k-é=sí

return-FACT-3O-CAUS2-3O=1SG

I made him return it.

Concluding from the first comparison, the object of a **súkù**-causative has more active involvement in the event. It is the undergoer of the causation, but it actually carries out the action.

The second comparison focuses on the semantic role of the subject. The examples below show both **-súkù** and **-kù** as causative stem markers on the root **wá||'á** 'vomit'.

wá||'á-súkù-Ŷing=à

vomit-CAUS2-3PL=3

He caused them to vomit

wá||'á-kù-Ŷing=à

vomit-CAUS1-3PL=3

He made them vomit (in order to cure them)

The **súkù**-causative shows that the subject is the causer of the event: it causes the object to vomit. A similar account can be given for the **kù**-causative, but its use suggests that the subject is involved more actively in the event: it makes the object vomit as part of a treatment, and does it on purpose. Thus, the **kù**-causative has a more specialized meaning, and the subject is more closely involved in the action than the subject of a **súkù**-causative.

Concluding from both comparisons, the differences between factitives and the two causatives can all be described in terms of the degree of active involvement of the arguments in the event. Factitive verbs have an actively involved agent subject, and a genuine patient object. **súkù**-causatives have a subject that is not actively involved, it is just the causer of the event. The (primary) object is therefore the one actively involved in the action. Finally, **kù**-causatives have a subject that is actively involved. The degree of involvement of the object is low.

6.2.5. Middle stems

Sandawe middle-marked verbs express both reflexive and agentless events. A strict formal division between the two semantic types cannot be made for Sandawe, even though there are two different middle extensions. Therefore the present section discusses the two together, showing where they can be distinguished and where problems arise.

Middle verbs are characterized by a form of the extension **-ts'i**. There are two middle extensions: one with a voiced vowel, **-ts'i** (middle 1; MID1), the other with a voiceless vowel, **-ts'ɿ** (middle 2; MID2). Middle verbs with a voiced final vowel have a high tone. The tone of middle verbs with a final voiceless vowel is low. Middle verbs with a final voiceless vowel obey to the general morphophonological rules concerning the voicing of voiceless vowels. Thus, voiceless vowels remain voiceless before a word boundary or pause:

thèé-áá +**||há-ts'ɿ** [thèéyáá +**||háts'**]
 tree-SFOC SV.shake-MID2
 The tree shakes

When followed by an affix or clitic, voiceless vowels are voiced:

thèé **||há-ts'ɿ=à** [thèé **||háts'ɿyà**] or: [thèé **||háts'àà**]
 tree shake-MID2=3
 The tree shakes

The distribution of the middle 1 and middle 2 extensions cannot be explained by morphophonology, but semantics can give more insight. The following examples show that the distribution of the two middle extensions is not phonologically conditioned:⁵⁶

Table 25: Distribution of middle extensions (voiced and voiceless final vowel)

Middle 1: voiced final vowel		Middle 2: voiceless final vowel	
kòdnáwàts'ɿ	be damaged	dɿòmóts'ɿ	be bought
mákàts'ɿ	be happy	hákíts'ɿ	sit (SG stem)
tʰínts'ɿ	be built	ʰánts'ɿ	be torn
ʔáárèts'ɿ	believe	núts'ɿ	go out, smother
ɲ!òóts'ɿ	be opened	 háts'ɿ	shake (intr.)

There are some examples of verb roots and extended stems that can take both middle extensions. This is illustrated in table 26:

Table 26: Reflexive/middle stems containing middle 1 and middle 2 extensions

Middle 1: voiced final vowel		Middle 2: voiceless final vowel	
dùbùméts'ɿ	hit oneself	dùbùméts'ɿ	be hit
hàɿsétts'ɿ	be praised	hàɿsétts'ɿ	boast
tʰ'òngéts'ɿ	burn oneself	tʰ'òngéts'ɿ	be burnt

⁵⁶ Note that only one translation equivalent is given for each verb. More information on the semantics of reflexive and middle verbs can be found below.

The pairs display a semantic distinction which is more or less predictable: verbs with the middle 1 extension always express reflexive events, while verbs with the middle 2 extension express agentless events, or reflexive events in which the subject has no control over the action.

A similar semantic distinction, but less clear, is found for middle verbs that have only one form of the middle extension (as in table 25). Reflexive events are always expressed by verbs with the middle 1 extension. On the other hand, agentless events, especially when having a passive reading, can be marked by means of the middle 1 or the middle 2 extension. Thus, a clear opposition between the two middle extensions is not found in this semantic field. For more information, see the discussion on middle semantics below.

Morphologically, middle verb stems can be categorized in two groups:

- a) Derived middle verbs
- b) Deponent middle verbs, or *media tanta*

a) Derived middle verbs are those verbs for which a counterpart without middle marking exists. Forms from which middle stems can be derived are verb roots and extended stems. In the following examples, the forms without the middle extension in the right column are verb roots.

kòònáwà-ts'í	be damaged	<	kòònáwà	damage
swìyá-ts'í	be hung	<	swìyá	hang (tr.)
 â-ts'í	be seen, be visible	<	 âŋ	see
 hâ-ts'í	shake (intr.)	<	 hâ	shake (tr.)

Some middle stems are derived by suffixing the middle extension to a modified form of the root. Modifications to the verb root are clipping and **e/a**-vowel alternation.⁵⁷ The following examples illustrate clipping of a disyllabic verb root with a final string **mé**, clipping of a final string **né**, and **e/a**-vowel alternation, respectively.

ǃǎn-ts'í	be torn	<	ǃǎŋ-	<	ǃǎámé	tear
tǃín-ts'í	be built	<	tǃínŋ-	<	tǃíné	build
ts'á-ts'í	be drunk, drinkable	<	ts'á-	<	ts'ée	drink

The middle stem **ŋ||wèén-ts'í** 'break' has an irregular form. The insertion of **n** cannot be attributed to a nasal element in the corresponding verb root.

ŋ wèén-ts'í	break (intr.)	<	ŋ wèé	break (tr.)
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⁵⁷ The same modifications occur when the plural marker **-?wá** is suffixed, and when object pronouns are suffixed. For more information, see sections 6.3 and 6.4.1.

The middle stem **mánáts'í** ‘be known’ has a high tone pattern, while the corresponding verb root has all low tones. This is the only example displaying a tonal change.

máná–ts'í	be known	<	màná	know
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The following middle stems have a corresponding verb root, but the middle extension is added to a form which consists of the root *plus* the plural object marker. The middle extension of these verbs has a voiced vowel (MID1). The function of the plural morpheme in these middle stems is unknown (see also section 6.4.1).

bô–ʔòwá–ts'í	say to oneself	<	bô	say
wá 'á–wá–ts'í	vomit on oneself	<	wá 'á	vomit
 àn–ʔàwá–ts'í	see oneself	<	 àn	see

The derivation of middle stems from extended stems mainly concerns iterative stems.

dùbù–mé–ts'í	hit oneself multiple times	<	dùb–ùmé	<	dùbé	hit with fist
dùbù–mé–ts`ı̀	be hit multiple times	<	dùb–ùmé	<	dùbé	hit with fist
hàmà–mé–ts`ı̀	be insulted (multiple times)	<	hàmà–mé	<	hà má	insult

The following example shows that middle stems may also be derived from factitive stems.⁵⁸

hàŋ–sé–ts'í	praise o.s., be praised	<	hàŋsé	praise
hàŋ–sé–ts`ı̀	boast	<	hàŋsé	praise

The verb **ʔáárè–ts'í** ‘believe’ is exceptional as the underived counterpart of the middle stem is an interjection.

ʔáárè–ts'í	<	ʔáárè
right-MID1		right
Believe, trust		All right, o.k.

⁵⁸ These are the only examples in my corpus. Van de Kimmenade (1954) mentions a few others: **em'séts'i** ‘être acceptable’ < **em'sé** ‘agrée’; **kóngosé'ts'i** ‘s'élever’ < **kóngosé** ‘élever’; **||'aséts'i** ‘s'abstenir’ < **||'asé** ‘empêcher’. He has one example where a middle stem is apparently derived from a factitive stem which is itself derived from a middle verb: **títs'iséts'i** ‘se courber’ < **títs'isé** ‘courber, plier’ < **títs'i** ‘être flexible’.

b) Deponent middle verbs, or *media tanta* are middle verbs that do not have a verbal counterpart without the middle marker (cf. Kemmer 1993; Mous 2004). The group of *media tanta* is small. The following list contains all examples from the corpus.

hàkíts'ǵ	sit (SG stem)
hàléts'í	put on airs
núts'ǵ	go out, smother
k'àréts'í	decorate oneself
tũnts'í	be blunt
 ááts'ǵ	come out suddenly (PL stem)

All middle verbs are intransitives. A middle stem can never have a (lexical or pronominal) direct object. In order to add an extra semantic role to the verb, adjuncts may occur in the form of postpositional phrases and adverbial phrases. In the following example an extra semantic role is introduced by the directional postposition **-nà**. The clause expresses how the lower half of a beehive has been made even with the upper half during construction.

pàà hèwé-nà lāmà-ts'í
 CNJ.3 he-DIR be_appropriate-MID1
 And then it is even with it.

The middle verb **?áárets'í** 'believe, trust' requires the object of trust. This semantic role is expressed as a locative postpositional phrase, marked by **-ts'ǵ**, e.g.

hàpú-ts'ǵ=sǵ ?ááre-ts'í
 you-LOC=1SG believe-MID1
 I believe/trust you.

An adverbial adjunct is illustrated below.

xâ=sǵ khé?é-ts'í
 bad=1SG hear-MID1
 I feel miserable

Middle constructions occasionally have an emphatic reflexive marker: **ts'éx-** 'oneself'.⁵⁹ The marker is coreferential with the subject and receives a gender marker and the subject focus marker **-aa**. The marker can have animate as well as inanimate referents.

⁵⁹ The form is probably related to the numeral **ts'éxǵ** 'one'.

ʔembè-n-sù ts'éx-sw-àà twàá-ts'í
 mango-DEF-f oneself-f-SFOC pick-MID1
 The mango has come off by itself (i.e. has fallen from the tree)

The following is a description of the semantics of Sandawe middle-marked verbs, which is inspired by Kemmer (1993) and Mous (2004). The description covers the semantics of verbs that are morphologically marked as middle stems by the extensions **-ts'í** and **-ts'ǿ**. It does not predict that all events which fit this description are expressed by middle-marked verbs.

The semantics of Sandawe middle verbs fall into two main categories:

- 1) Reflexive events (middle 1)
- 2) Agentless events (middle 1 and middle 2)

The categories are treated separately. Note however that a single middle-marked verb can have both meanings, e.g. **kòónáwàts'í** '1. damage oneself; 2. be damaged'. A further discussion of the formal and semantic properties of middle stems follows after the description.

1) Reflexive events are events in which the agent is at the same time the patient of the action. Middle-marked verbs in this category are derived from transitive verbs in which an agent subject carries out an action on a patient object. In the middle verb the agent subject carries out the action on itself. The following examples all express physical activities, because they demonstrate the reflexivity of the event most clearly. The extension is the middle marker 1: **-ts'í**.

dùbét's'í	hit oneself with fist	<	dùbé	hit with fist
hí 'áwát's'í	tie oneself	<	hí 'á	tie
khàát's'í	hit oneself	<	khàá	hit
tí'áxét's'í	cut oneself	<	tí'áxé	cut
ŋ ók'hòt's'í	wash oneself	<	ŋ ók'hò	wash

In middle stems with both the middle 1 and middle 2 extension, the middle 1 stem expresses a reflexive event. The middle 2 stem, which is marked by **-ts'ǿ**, is used to express an agentless event (e.g. with a passive reading), or a reflexive event in which the subject carries out an action on itself, but without control, or unintentionally.

tí'áphùmét's'í	beat oneself	vs.	tí'áphùmét's'ǿ	be beaten
tí'áxét's'í	cut oneself	vs.	tí'áxét's'ǿ	cut o.s. unintentionally, be cut
xàts'ímét's'í	reprimand o.s., regret	vs.	xàts'ímét's'ǿ	be reprimanded

Middle 2 stems without a corresponding middle 1 stem never express reflexive events.

2) In middle-marked verbs that express agentless events the sole (subject) argument of these middles is the undergoer of the event and has no control. Although one may imagine an agent for several middle verbs in this category, there is no agent in the linguistic presentation of the situation. The absence of a controlling agent in clauses with a middle verb is demonstrated by the fact that it is not possible to include an agent, for example by a postpositional phrase.

Within the category of agentless events, a sub-division of the semantics of middle verbs can be made. The groups represent different aspects, or readings, of the core meaning (agentless events). Middle verbs often have more than one reading, depending on the context. The main readings of agentless middles are:

- Passive events (middle 1 and middle 2)
- Spontaneous events (middle 2 only)
- Facilitative events (middle 1 only)

The passive reading is well represented in the class of Sandawe middle verbs, both with middle 1 and middle 2 extensions.⁶⁰ The subjects of these middles are patients of the action. Although an agent might very well be imagined for passive middles, it cannot be expressed. Passive middles generally have an underived active counterpart, in which the subject is the agent of the action.

hàbáts'í	be born	<	hàbá	bear, give birth to
kòónáwàts'í	be damaged	<	kòónáwà	damage
ǎánts'ǎ	be torn	<	ǎáámé	tear
tǎín-ts'í	be built	<	tǎíné	build
ŋ!òóts'í	be opened (door)	<	ŋ!òó	open (door)

The following list illustrates middle verbs describing spontaneous events. The middle extension for all verbs in this reading is **-ts'ǎ** (MID2).

núts'ǎ	go out, smother		(deponent)
?ǎánts'ǎ	crack (intr.)	<	?ǎáámé crack (tr.)
 háts'ǎ	shake (tree) (intr.)	<	 há shake (tr.)
ŋ wèénts'ǎ	break (intr.)	<	ŋ wèé break (tr.)

The examples show that there are no clear-cut boundaries between different readings of agentless middles. Spontaneous events naturally have no agent, but even here a causer could be imagined (e.g. the wind, or the absence of firewood in case of **núts'ǎ** 'go out').

⁶⁰ Note that Sandawe does not have a genuine passive derivation.

The facilitative reading expresses the ability of the patient subject to undergo the event. A controlling agent is excluded in this reading. The middle extension is **-ts'í** (MID1) for all examples, except for **dl̥òmóts'í** 'be buyable' (MID2).

dàáts'í	be possible	<	dàá	be able
māntshàts'í	be edible	<	māntshà	eat
l̥ānts'í	be visible	<	l̥āŋ	see
!'òóts'í	be available	<	!'òó	get, meet
ŋ ũnts'í	be washable	<	ŋ ũné	wash

Middle verbs with a facilitative reading often occur in combination with a negation marker. In such a construction the subject pronoun that codes the patient subject belongs to the non-realis series. The negation marker is **=ts'é**. The following example illustrates this.

hèéw̃ g̃itl'ê-ŋ ʔúr=à |hwèés̃, ŋ||ũn-ts'í-ì=ts'é

DEM1.m garment-DEF very=3 be_dirty wash-MID1-3:NR=NEG2

This garment is very dirty, it cannot be washed (i.e. is not washable, cannot be cleaned).

A few meanings of middle verbs cannot be grouped according to the three main readings of agentless middle verbs. The semantics of these verbs are within the range of the semantics of the middle voice that have been postulated in Kemmer's typology (1993). However, the domains are not postulated as semantic sub-groups for Sandawe, because the number of examples for each domain is too small. Middle-marking in these domains is the exception rather than the rule.

The following three middle 1 verbs express emotion events.⁶¹

khé?éts'í	feel	<	khé?é	hear
mákàts'í	be happy	<	mákà	make happy
ʔáárets'í	believe, trust	<	ʔááre	right

The verb **khé?éts'í** 'feel' is a neutral verb of emotion. In interrogatives, it questions the state of the addressee with the question word **híkí** 'how?'. In affirmative clauses, the middle verb has to be accompanied by an evaluative adverb.

híkí=ì khé?é-ts'í

how?=2SG (SV.)hear-MID1

How do you feel?

xâ=s̃ / l̥áá=s̃ 'khé?é-ts'í

bad=1SG / good=1SG SV.hear-MID1

I feel miserable / good.

⁶¹ Cf. verbs of emotion without middle morphology: **mèénà** 'love, like'; **k'it'é** 'be angry'; **ŋ|óó** 'fear'.

The middle verb **mákàts'í** describes the state of being happy. Note that the event is static: middle verbs with an non-realis subject pronoun express that the subject(s) will *be* happy, rather than ‘be made happy’, which one might assume when reading the root ‘make happy’ plus the middle extension. Similarly, a reflexive reading (‘make oneself happy’) is excluded for this verb.

mákà-ts'í-sì

make_happy-MID1-1SG:NR

I will be happy (*I will be made happy, *I will make myself happy)

Finally **?áárets'í** ‘believe, have trust in’ can be seen as a verb of emotion (cf. Kemmer 1993:269). As mentioned before, this verb requires the object of trust, which is expressed by an adjunct. The referent of this phrase may be animate or inanimate.

hàpú-ts'í-sì ?áárets'í

you-LOC=1SG right-MID1

I believe you, I trust in you

hàpú *bô-ts'í-sì ?áárets'í

you POSS.word-LOC=1SG right-MID1

I believe/trust your words

Alternatively, the adjunct may consist of an adverb **?ixì** ‘thus’, which can be further specified by a complement clause.

sàndawé ?ix=à?à ?áárets'í ká?á ...

Sandawe thus=3PL right-MID1 that

The Sandawe thus believe, that ...

Further there are two middle 2 verbs in Sandawe that express a spatial relation between the subject and its surroundings.

hàkíts'í sit (SG stem)

||ááts'í come out suddenly (PL stem)

hàkíts'í ‘sit’ is a static verb, which expresses that the (singular) subject is located in a sitting position. **||ááts'í** describes that (plural) subjects suddenly come out from inside. Both examples might represent semantic domains of the middle voice, e.g. positionals and translational motion (Kemmer 1993:269). However, each verb would be the only example in its domain. More importantly, both verbs are part of a suppletive singular/plural stem pair, in which the counterpart does not have a middle

extension: **hàkítsʔ** - **hánàkí** ‘sit (SG – PL stem)’; **ɬwéʔə** - **||áátsʔ** ‘come out suddenly (SG - PL stem)’. Therefore, a spatial reading is not postulated for Sandawe middles.⁶²

Reflexive events and agentless events constitute the core semantics of middle-marked verbs in Sandawe. The following examples illustrate the use of middle verbs in idiomatic expressions. The semantics of middle verbs in these expressions can be considered extensions of the core meanings.

hàpú-|’án-nà **hóts-àà** **|án-tsʔ** **ʔútè**
 you-up-DIR what?-SFOC see-MID1 yesterday
 What happened to you yesterday? (lit. what was seen/visible upon you yesterday?)

sákà-àà **hí|’á-tsʔ**
 chest-SFOC tie-MID1
 Have asthma, have difficulty breathing (lit. the chest is tied)

gùtʔ’è-ŋ **ŋ!á-tsʔ=ɡá=à**
 garment-DEF grab-MID2=CONF=3
 The garment is damaged by fire (lit. the garment has been grabbed)

ʔixi=sì **pèé-tsʔ**
 thus=1SG put:SG-MID1
 I have decided in this way (lit. ?I put myself thus, I have been put thus)

The semantic categorization of middle-marked verbs in two main groups (reflexive events and agentless events) and the two forms of the middle extension lead to two analytical questions:

- Is there a correspondence between the two semantic categories and the two forms of the middle extension, **-tsʔ** and **-tsʔ**?
- Can the middle extension be analyzed as a reflexive object pronoun?

Concerning the first question, there is clearly no one-to-one relation between the two semantic categories and the two forms of the middle marker. The distribution of the two extensions cannot be explained entirely, e.g.:

|ántsʔ be seen, be visible vs. **dʒòmótsʔ** be bought, be buyable

Intentional, controlled reflexive events are always marked by **-tsʔ**-middles. The examples which display the middle 1 extension and the middle 2 extension on the same root or stem show this distinction most clearly:

⁶² More insight into historical developments in Sandawe might even reveal that **hàkítsʔ** is not a middle-marked verb at all: cf. the middle morpheme **-tsʔ** to the locative postposition **-tsʔ**.

Table 27: The semantics of **ts'í**-marked middles vs. **ts'ǿ**-marked middles

ts'í -middles (MID1)		ts'ǿ -middles (MID2)	
dùbùméts'í	hit oneself	dùbùméts'ǿ	be hit
hàlìséts'í	praise oneself, be praised	hàlìséts'ǿ	boast
swáts'í	be stripped, be strippable (rope)	swáts'ǿ	strip one's skin (snake), rejuvenate
tí'aphùméts'í	beat oneself	tí'aphùméts'ǿ	be beaten
tí'axéts'í	cut oneself	tí'axéts'ǿ	cut oneself unintentionally, be cut
tí'òngéts'í	burn oneself	tí'òngéts'ǿ	burn oneself unintentionally, be burnt
xàts'iméts'í	reprimand oneself, regret	xàts'iméts'ǿ	be reprimanded

The **-ts'í**-marked middle verbs generally signal that the subject has control and carries out the action on itself; subjects of **-ts'ǿ**-marked middles on the other hand do not have control over the event. The middle verb **swáts'í** 'be stripped, be strippable' is an exception: it carries the middle 1 morpheme, but there is no controlling subject, nor a reflexive event. It remains to be explained which verbs can have both forms of the middle extension.

The semantic distinction in the above-mentioned pairs partially holds for the middle-marked verbs with only one middle extension. Again intentional, controlled reflexive events are always marked by **-ts'í**-middles. There are no examples of **ts'ǿ**-middles that express reflexive events. However, the middle extension **-ts'í** (middle 1) cannot be attributed solely to reflexives. First, there are middle 1 verbs that do not have a reflexive meaning. Facilitative middles (such as **dàáts'í** 'be possible') can be included as a group here, but there are others too:

dàáts'í	be possible
hàbáts'í	be born
mákàts'í	be happy
tíints'í	be built
?áárèts'í	believe, trust
ŋ!dóts'í	be opened (door)

Second, there are middle 1 verbs that can express both reflexive and agentless events.

kòónáwàts'í	damage oneself, be damaged
khàáts'í	hit oneself, be hit

The following example shows how the two semantic categories can be expressed by the same middle-marked verb.

ts'èxè-àà kòónáwà-ts'í

oneself-SFOC damage-MID1

1. He has damaged himself; 2. It is damaged (all by itself)

The meaning of this clause depends on the referent. A human referent leads to a reflexive interpretation. For an inanimate referent, the emphatic reflexive marker stresses that there is no agent in the linguistic reality. Depending on the animacy of the referent, the subject can have more or less control over the event. The higher the animacy of the referent, the more control a subject can have. Consequently, the middle-marked verb will receive a reflexive interpretation. As inanimate referents generally have less control a genuine reflexive interpretation is odd. For these referents the interpretation of a middle verbs as an agentless event is more appropriate.

Concluding, although there is no one-to-one relation between the two middle morphemes and the two main semantic categories, there is a clear tendency to mark reflexive events by the middle 1 extension, **-ts'í**. Because of the non-reflexive readings of the middle 1 marker, we refrain from positing a 'reflexive marker' for this morpheme. The observed tendency may reflect a historical development towards a formal distinction between reflexive events and agentless events.

The second issue is whether the middle extension 1 can be analyzed as a reflexive object pronoun. Formally, the middle extension appears to behave like a reflexive object pronoun because of its position in the verb: after the verb root or extended stem, in the position of an object pronoun. Moreover, both clipping and **e/a**-vowel alternation do not only apply to verb roots before the middle morpheme, but also before direct object pronouns (see 6.3). However, there are good arguments against this analysis. First, plural subject participants of middle-marked verbs can be marked by **-wà** after the middle morpheme.

ŋ||ókhò-ts'í-wà=à

wash-MID1-PL2=3

They washed themselves

The use of this plural subject marker is restricted to verbs without plural pronominal object: the presence of object pronouns rules out the option to mark plural subject participants by this morpheme. If the extension were analyzed as a reflexive object pronoun, **-wà** could not have coded plural subject participants of middle verbs. Rather, the plural object marker **-wá** would be expected, which appears *before* the (reflexive) object pronoun. Second, the two middle morphemes are not part of the paradigm of inflectional object markers which is used to code direct objects and secondary objects after verbal case markers. If the morphemes were analyzed as reflexive object pronouns, one would expect them to occur analogous to object

pronouns, e.g. after the causative 2 extension **-súkù**, and after the benefactive marker **-x̂**. However, middle morphemes never occur in those positions. A periphrastic construction is used instead, e.g.:

ts'èx-sw-àà hèsú-mèé=sà xwànté
 oneself-f-SFOC she-sake=3fSG stir
 She cooked (mash) for herself

Therefore, in a synchronic description of Sandawe the morphemes are better analyzed as middle stem markers: **-ts'í** and **-ts'ǀ** are extensions that function as stem building devices.

6.2.6. Reciprocal stems

The morphological structure of reciprocal stems is irregular. There is a common form **-kí**, which is present in all reciprocal stems, but in most reciprocal stems this **-kí** is part of a more complex form. The basic structure of the reciprocal extension can be summarized as follows: **(k)-(wá/?wá)-(ŋ)-kí**. The most common form of the reciprocal extension is **-ŋkí**, which is often preceded by the plural direct object marker **-wá / -?wá**. The description starts with this form of the extension, then treats the simplest form **-kí**. Finally, the most complex form, **-k-wá-ŋkí**, is treated, which codes non-direct object reciprocity.

Many reciprocal stems are characterized by the extension **-ŋkí**, which is preceded by a form of the plural object marker. The following list shows reciprocal verbs that are derived from verb roots. The verb **||'úwáŋkí** has no corresponding underived form.

bìkhé-wá-ŋkí	leave each other	<	bìkhé	leave
bóri-wá-ŋkí	invite each other	<	bóri	invite
mèénà-wá-ŋkí	love each other	<	mèénà	love
?ádúkù-wá-ŋkí	help each other	<	?ádúkù	help
 'úwáŋkí	dance with each other			

The following examples illustrate reciprocal stems that are derived from verb roots with a plural object marker **-?wá**.

 âŋ-?àwá-ŋkí	see each other	<	 âŋ	see
!'ò-?ówá-ŋkí	meet each other	<	!'òó	meet
ŋ!â-?àwá-ŋkí	grab each other	<	ŋ!á	grab

Reciprocal stems that are derived from a causative stem (CAUS1 and CAUS2) have the same type of formation: the causative verb is followed by the plural object marker **-wá** and the reciprocal extension **-ŋkí**. The downstepped high tone on the

plural object marker is caused by the final low tone of the causative morpheme. The sequence **kw** is realized as a labialized consonant [k^w].

k^htí'é-sú^hk-wá-ŋkí	make e.o. angry	<	k^htí'é-súkù	make angry (CAUS2)
mântshà-'k-wá-ŋkí	feed each other	<	mântshà-kù	feed (CAUS1)
ŋ!èé-sú^hk-wá-ŋkí	make e.o. laugh	<	ŋ!èé-súkù	cause to laugh (CAUS2)

Reciprocal stems derived from iterative stems have the extension **-ŋkí**.

dùb-ùmé-ŋkí	hit e. o. with fist	<	dùb-ùmé	hit with fist (IT)
fâr-ìmé-ŋkí	lie to each other	<	fâr-ìmé	lie (IT)
xàl-ìmé-ŋkí	annoy each other	<	xàl-ìmé	annoy (IT)

There is one reciprocal stem with the extension **-ŋkí** that does not have an underived counterpart.

 'áŋkí	fight each other
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A small number of reciprocal stems is derived by suffixing the reciprocal marker **-kí** to a verb root.

bìkhé-kí	leave each other	<	bìkhé	leave
wák'à-kí	kill each other	<	wák'à	kill (PL stem)
!'òó-kí	meet each other	<	!'òó	meet
 'àá-kí	follow each other	<	 'àá	follow

Note that there are verbs with two reciprocal stems: the root **bìkhé** 'leave' has both **bìkhé-kí** and **bìkhé-wá-ŋkí** 'leave each other'; similarly, the root **!'òó** 'meet' has two reciprocal stems: **!'òó-kí** and **!'ò-?'òwá-ŋkí** 'meet each other'.

The most elaborate form of reciprocal stem formation is illustrated below. The verbs in this group express events of non-direct object reciprocity: the reciprocity concerns an argument which is not an argument of the underived verb root. The reciprocal stem consists of a verb root, followed by **-k^h-wá-ŋkí**. The sequence **kw** is realized as a labialized consonant [k^w]. The element **-k^h-** has a floating low tone, which causes a downstepped high tone on the following high tone of the plural object marker if the preceding tone (of the verb root) is high.

bô-kwá-ŋkí	say to / tell each other	<	bô	say (sth)
sàò-kwá-ŋkí	converse with e.o.	<	sàò	converse (intr.)
tùrùté-'kwá-ŋkí	rest together	<	tùrùté	rest
ts'ée-'kwá-ŋkí	drink at e.o.'s place	<	ts'ée	drink

wèré-^hkwá-ŋkí visit each other < **wèré** walk (intr.)

Another reciprocal stem of this type is (exceptionally) derived from a noun root.

sàíbà-kwá-ŋkí be friends (of e.o.) < **sàíbà** friend

Reciprocal verbs express events in which the participants that carry out the action are at the same time affected by the action. For most of the Sandawe reciprocal verbs, the participants are both the agent and the patient of the action. The action is carried out by the agent(s) on the other participant(s), who is (are) agent(s) of that action too. For example, the participants of **||'áákí** 'follow each other' are both followers and followed ones; similarly, the participants of **k'ití'ésú'kwáŋkí** 'make each other angry' both make angry and are made angry.⁶³

Sometimes there is no patient role in reciprocal events. The action is carried out by the participants and simultaneously affects them, but the participants are not genuine undergoers of the action. Examine the following verbs:

bôkwáŋkí say to each other
sàòkwáŋkí converse with each other
||'úúwáŋkí dance with each other

The participants in these reciprocal events are agents of the action, and recipients or undergoers of the action at the same time. Except for the verb **||'úúwáŋkí**, reciprocal stems in this set are all of the form 'root-**k**-**wá-ŋkí**'. Therefore the element **-k-** in this type of stem formation is analyzed as a marker that introduces an extra argument into the reciprocal stem.⁶⁴

Reciprocity of an event requires plurality of the participants. The subject of reciprocal verbs is therefore always a plural subject. Next to that, the plurality of participants in reciprocal verbs is often coded by a plural object marker (**-wá**, **-ʔwá**). In two cases, a reciprocal stem can be formed both with and without the plural object marker. No detailed investigation has been made of the use of the two variants, but there appears to be a difference in distributivity. The reciprocal stems

⁶³ As the agent is simultaneously the patient of the action in these cases, one might interpret the reciprocal marker **-(ŋ)kí** as a reciprocal pronoun. This interpretation would be supported by the position of the marker, namely after the plural object morpheme, in the position of the object pronoun. Arguments against this analysis are the variability of the form of the reciprocal marker (as opposed to the uniformity of object suffixes), and the occurrence of the reciprocal marker with verbs in which participants are subjects but not direct objects of the action.

⁶⁴ **-k-** may historically be related to the causative morphemes **-kù** and **-súkù** or to the allomorph **-kw** of the benefactive marker.

with a plural object marker have a collective reading, while the ones without a plural object marker focus on the single individuals.

bìkhékí

leave each other (1 to 1, or 1 to many)

bìkhéwáŋkí

leave each other (many to many)

!’òókí

meet each other (1 with 1, or 1 with many)

!’ò?ówáŋkí

meet each other (many with many)

Parallel to the plurality of participants in a reciprocal event, there is plurality of action. All the participants in the event carry out the action, so the action is carried out multiple times. The plurality of action is sometimes coded overtly, when a reciprocal stem also contains an iterative extension, e.g. **xàl-ìmé-ŋkí** ‘annoy each other’. However, these verbs do not necessarily imply that the *reciprocal event* is carried out multiple times. On the contrary, most iterative reciprocals are the default reciprocal stem, as a (non-iterative) reciprocal stem does not exist:

hámá > hámà-mé-ŋkí

insult insult each other (*insult each other multiple times)

(* **hámáwáŋkí**)

The plurality of action in these reciprocals, as coded by the iterative extension, is thus an inherent part of the event. The resulting iterative reciprocal forms are considered ‘plain reciprocals’. This is reflected in the translation.

There is one instance in which a reciprocal stem can be contrasted to an iterative reciprocal stem. In this case, the iterative reciprocal stem has a compositional meaning: the iterative morpheme indicates that the event is carried out repeatedly.

wèré-’kwáŋkí	visit each other	<	wèré	walk
wèr-ìmé-ŋkí	visit each other frequently	<	wèr-ìmé	visit (IT)

The following example illustrates the context in which the iterative reciprocal stem can occur. The clause is part of a story about Hare and Rooster, who were good friends. They often did things together and visited each other a lot.

?úr=à?à hèsó ts’áá-nà-ts’áá-nà=?à wèr-ìmé-ŋkí

very=3PL they (POSS.)home-DIR-home-DIR=3PL walk-IT-REC

They visited each other a lot at home.

6.3. Direct object marking

Objects can be marked on the verb by means of object suffixes. Object suffixes are used to code direct objects and oblique objects. Oblique objects are always preceded by a verbal case marker, which are discussed in section 6.5. The present section deals with direct object marking.

The section is ordered as follows. After the introduction, the forms of the object suffixes are presented, followed by a description of morphophonological changes when subject clitics follow the object pronoun. The second part of this section discusses the morphological processes by which object pronouns are marked. The third part focuses on third person object marking.

Transitive verb roots and extended stems can have one or, occasionally, two direct objects that are coded on the verb by a pronoun. The presence of one object suffix is common.

mèénà-sw=â

love-3fSG=3

He loves her

The number of transitives with two direct objects is small. Examples are causatives that are derived from transitive roots, and the verb ‘give’, which is actually an empty stem. The pronominal coding of two objects on ditransitive causatives is possible but only occurs sporadically. The verbal coding of the object after the root when there is another object pronoun after the causative extension is probably restricted to the third person object pronoun **-é**. In the following example, the first object pronoun after the root refers to the patient of the action of building, which agrees with the lexical object **khòó** ‘house’; the object pronoun after the causative extension codes the causee: the one who is caused to build.

khòó=sà tǎng-é-súkù-sé

house=3fSG build-3O-CAUS2-1SG

She made me build a house.

Double object marking on the zero stem ‘give’ is common: usually both a patient and a recipient object are coded by direct object pronouns. (For more information on the zero verb stem for acts of exchange, see section 6.6).

kàkúrù=kò sé-é

calabash=2SG:OPT 1SG-3O

Give me the calabash.

Table 28 presents the verbal object pronouns of Sandawe. The third person object pronoun **-é** is used for third person masculine singular objects; moreover it codes

third person plural non-human and/or non-specific objects in combination with the plural object marker **-wá** (section 6.4.1). Therefore the gloss for this object pronoun is 3O, rather than 3MSG. The third person plural object pronoun **ʔiŋ** codes third person plural specific human objects.

Table 28: Verbal object pronouns

OBJ	
1SG	sé
2SG	pó
3O	é
3fSG	(é)-sú
1PL	súŋ
2PL	síŋ
3PL	ʔiŋ

The suffixes undergo regular morphophonological changes when they are immediately followed by a vowel. This is the case when vowel-initial subject clitics follow an object suffix.

The suffixes **-sé** and **-pó** can be realized in two ways when the subject clitic **-à** (third person) is suffixed. Usually, the oral vowels of the object suffixes assimilate to the quality of the following vowel. Alternatively, the object suffix is not changed. The subject clitic is realized as a separate syllable, with glide formation in between the two vowels. The two realizations are in free variation.

hùmàsáà, hùmàsáyà < **hùmà-sé=à**
 overcome-1SG=3
 He overcame me

hùmàpáà, hùmàpówà < **hùmà-pó=à**
 overcome-2SG=3
 He overcame you

The subject clitic **-ì** (third person non-realis) does not change the form of the object suffixes. After an oral vowel, the clitic is realized as a syllable-final glide.

hùmàpóy̆ < **hùmà-pó-ì**
 overcome-2SG-3:NR
 He will overcome you

The final vowel of **-(é)sú**, 3fSG, is realized as labialization on the preceding consonant **s** when followed by a vowel. The length of the vowel is maintained.

hùmàswèè < **hùmà-sú=è**
 overcome-3fSG=2PL
 You overcame her

Suffixes ending in a nasal, i.e. **-súnj** (1PL); **-sínj** (2PL); **-ʔínj** (3PL), have an epenthetic consonant **g** inserted in between the object suffix and the vowel of the subject clitic.

hùmàsúnjgà < **hùmà-súnj=à**
 overcome-1PL=3
 He overcame us

The suffix for third person objects, **-é**, assimilates to the preceding vowel.

mântshàásj < **mântshà-é=sj**
 eat-3O=1SG
 I ate it

ŋ||ókhòósj < **ŋ||ókhò-é=sj**
 wash-3O=1SG
 I washed him

Alternatively, this suffix is realized as a separate syllable with an initial glide: **-yé**. This form appears after verbs with a long final vowel, and occasionally after short vowels too. The form may be a more prominent way of marking the third person object suffix on the verb.

pèéyékò < **pèé-é=kò**
 put:SG-3O=2SG:OPT
 Put it down!

ʔàà **ʔíŋ-mé-yé**
 CNJ2.3PL close-IT-3O
 And they closed it.

The simplest means of direct object marking on the verb is suffixation. In many cases the object pronoun is suffixed directly to the verb root or the extended stem (as exemplified above). However, some verb roots undergo changes when an object pronoun is present. Moreover, the object pronoun **-é** is sometimes not suffixed, but rather infixated in the root. The processes in which object pronouns are not (only) simply suffixed to roots can be summarized as follows:

- 1) clipping of the verb root and suffixation
- 2) infixation of **é** (3O)
- 3) **e/a**-alternation of the verb root and suffixation

1. Some roots undergo clipping before the suffixed object pronoun. Clipping operates on disyllabic verb roots and reduces them to monosyllables. The original tone pattern is maintained on the clipped form. Generally clipping operates on disyllabic roots with final strings **mé**, **né**, and **wé**. In roots with medial nasal consonants, the vowel is clipped and the preceding nasal (**m** or **n**) is realized as a homorganic nasal, **N**. In roots with a final string **wé**, both the vowel and the medial consonant **w** are clipped.

clipping of verb roots with a final string **mé**

tʰiN-	cook (OBJ)	<	tʰimé
!ěN-	accompany (OBJ)	<	!ěmé

clipping of verb roots with a final string **né**

tʰiN-	build (OBJ)	<	tʰiné
 ĩN-	pluck (OBJ)	<	 ĩné

clipping of verb roots with a final string **wé**

!hwá-	shave (OBJ)	<	!hwáwé
 ú-	shoot (OBJ)	<	 úwé

ŋ!wáne ‘ask for’ is an exception to this generalization as it does not have a clipped form.

Although the verb root **ŋ|ínì** ‘eat (meat)’ does not end in one of the strings mentioned above, it has a clipped form. The HL tone pattern of the root changes to a H tone on the clipped form.

ŋ íN-	eat (meat) (OBJ)	<	ŋ ínì
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The resulting clipped form of the verb root is the base to which the object pronoun is suffixed. The following paradigm illustrates the verb **!ěmé** ‘accompany’ with the object suffixes.

!èmé > **!ěN-** ‘accompany (OBJ)’

OBJ	
1SG	!ěn-sé
2SG	!ěm-pó
3O	!è-é-mé
3fSG	!è-é-mé-sú
1PL	!ěn-súŋ
2PL	!ěn-síŋ
3PL	!ě-ŋíŋ
PL-3O	!ě-ŋéwá-á

Note that the third person object pronoun **-é** behaves different from the other pronouns: there is no clipping and the pronoun is infixal. Infixation of this pronoun occurs with **mé** and **wé**-final roots, see 2. below. For **né**-final roots, **-é** is suffixed to the homorganic nasal of the clipped form, which is realized as **ŋg**, e.g. **tíné** ‘build’:

tíné + é > **tíN-é** > **tíŋgé**

When a clipped form with a homorganic nasal is followed by a glottal stop, the verb form is realized with a nasalized vowel:

!èmé + ŋíŋ > **!ěN-ŋíŋ** > **!ě-ŋíŋ**

2. Infixation is a morphological process in which the third person object pronoun is inserted in the root, instead of being affixed to the end. It takes place on disyllabic roots with final strings **mé** and **wé**. Infixation only takes place with the third person object pronoun **-é**, the only object suffix without initial consonant. The quality of the vowel assimilates to the preceding vowel.

!ò-ó-mé	cultivate it	<	!òmé + é
tí-í-mé	cook it	<	tímé + é
!è-é-mé	accompany him/it	<	!èmé + é
hà-á-wé	fetch it	<	hàwé + é
 ú-ú-wé	shoot him/it	<	 úwé + é

3. A restricted set of verb roots displays an **e/a**-vowel alternation: monosyllabic verb roots, which have a final vowel **ee** when no object suffix is present, have a short vowel **a** when an object pronoun is suffixed. The following list illustrates the verbs that undergo this alternation.⁶⁵

swá-	strip off (OBJ)	<	swéé
twà-	pick (OBJ)	<	twèé ⁶⁶
ts'á-	drink (OBJ)	<	ts'éé
!hwá-	take out (OBJ) of calabash	<	!hwéé
 wá-	hide (OBJ)	<	 wéé
 hwá	strip off (OBJ)	<	 hwéé

The following example illustrates the full paradigm of object suffixes on the verb root **||wéé** 'hide'.

||wéé > **||wá-** 'hide (OBJ)'

OBJ	
1SG	 wá-sé
2SG	 wá-pó
3O	 wá-á
3fSG	 wá-á-sú
1PL	 wá-súŋ
2PL	 wá-síŋ
3PL	 wá-ʔíŋ
PL-3O	 wá-ʔáwá-á

As can be seen from the paradigm, the occurrence of the root-vowel **a** depends on the presence of an object suffix. The third person object pronoun **-é** assimilates to the preceding vowel **a** of the root.

The verb root **ŋ|wéé** 'do' has an irregular form when an object pronoun is suffixed. It cannot be categorized under one of the three processes mentioned above. The plural object stem of this root is irregular too (section 6.4.1).

ŋ|úʔiyá- do, create (OBJ) < **ŋ|wéé**

⁶⁵ Not all monosyllabic verb roots with a final vowel **ee** display the alternation, e.g. **||'èé** 'skin'; **téé** 'count' do not.

⁶⁶ The verb root **twèé** 'pick' has a rising tone pattern, the a-form has a low tone. However, when the plural object marker **ʔwá** is suffixed, the a-form appears with the rising tone pattern: **twá-ʔáwá-á**.

Object marking on transitive extended stems is rather transparent: object pronouns are almost always suffixed directly to extended stems.

tɪ'aph-ùmé-ʔín=sà

hit-IT-3PL=3fSG

She hit them multiple times

hùmbù=kò khwàà-sé-é

cow=2SG:OPT return-FACT-3O

Return the cow!

In extended stems, there are a number of cases where the presence of an object pronoun has effect on the form. First, iterative stems undergo a tonal change when **-é** or **-ésú** follows (see section 6.2.2); e.g. **xàd-ìmé-é** > **xàdíméé** 'scrape it out multiple times'. The same change takes place when a non-human plural object is coded on an iterative stem: **xàd-ím-á-á** 'scrape them out multiple times'. Further, **súkù**-causatives have optional suffix support by the vowel **à**, which is placed after the stem and before the object suffix (see section 6.2.4); e.g. **ɲ!èé-súkù-sín-sà** > **ɲ!èésúkwàsínsà** 'she made you laugh'.

Third person object marking has some peculiarities. As shown in table 28, there are three suffixes that are used to mark third person objects: **-é**, **-ésú**, and **-ʔín**. The object suffix **-ʔín** refers to third person plural objects that are human and specific. All other third person objects are marked in one way or another by the third person object pronoun **-é**.

For third person singular objects there is a gender distinction between masculine and feminine. Masculine singular objects are coded by **-é**. The object pronoun may be the only marker for the object, but the object can also be specified lexically in addition to the object suffix. Note that **-é** is infix in the following two verb forms (**!èémé + -é** > **!èémé**).

!èémé=sí

accompany.3O=1SG

I have accompanied him

gélé=sí !èémé

Gele=1SG (SV.)accompany.3O

I have accompanied Gele

Direct object marking of feminine referents is more complex. The form of the object suffix, **-ésú**, incorporates the third person object suffix, **-é**.

hámá-mé-é-sw=â

insult-IT-3O-3fSG=3

He insulted her multiple times

ŋ||ókhò-ó-sú=sà
 wash-3O-3fSG=3fSG
 She washed her

Verb roots with an infix third person object suffix display this third person object form before the suffix **-sú**.

!èémé-sw=â
 accompany.3O-3fSG=3
 He has accompanied her

For a few verbs, the suffix is simply **-sú**. The form **-sú** may be a phonologically reduced form of **-ésú**, but conditions are not clear.

síyé-sw=â
 take:SG-3fSG=3
 He has married her

|ân-sú=sí
 see-3fSG=1SG
 I have seen her

In the examples above, the feminine referents are all coded by the third person feminine singular suffix. However, coding of the feminine gender is not obligatory. The examples below show that a feminine object that is both lexically and pronominally specified, can be marked on the verb by the third person feminine singular suffix, or by the third person object suffix **-é** only.⁶⁷

k'ats'awá=sí **ŋ||ókhò-ó-sú**
 K'ats'awa=1SG sv.wash-3O-3fSG
 I washed K'ats'awa (f.)

k'ats'awá=sí **ŋ||ókhò-ó**
 K'ats'awa=1SG sv.wash-3O
 I washed K'ats'awa (f.)

Finally, the third person object suffix is found with third person plural objects that are non-animate and/or non-specific (i.e. those that cannot be coded by **-ŋŋ**). The plurality of these objects is marked by the plural object marker **-wá** / **-?wá**. The object suffix **-é** follows the plural object marker and assimilates to the preceding vowel.

⁶⁷ This also holds for the pronominal coding of feminine oblique objects after a derivational marker (section 6.5).

wàgìnjì-xê-ŋg=à ?ádúkù-wá-á
 stranger-COLL-DEF=3 help-PL1-3O
 He has helped the group of strangers

Occasionally the third person object suffix occurs after a suppletive plural stem. When one consultant was confronted with the following clause (by another consultant), he claimed it was not grammatical until the object suffix was removed.

? tèrenjì róbóthà=sà tì'áá-yé
 train.f bale=3fSG take:PL-3O
 The train took bales.

On a later occasion however, the same consultant used the same suppletive plural stem with an additional third person object suffix and said the suffix is optional.

picha-xê-ŋ íááw-wà sàà hèwé-mèé=sà tì'áá-yé
 picture-COLL-DEF good-PL2 CNJ2.3fSG he-sake=3fSG take:PL-3O
 The pictures are nice and therefore she took them.

6.4. Verbal plurality marking

Sections 6.4.1 and 6.4.2 discuss the plural markers **-wá** / **-?wá** and **-wà**, respectively. The uses and meanings of the markers are summarized in table 29. The labels depend on the primary uses: plural direct object marker (PL1) for **-wá** / **-?wá**; plural non-direct object marker (PL2) for **-wà**. The two markers are mutually exclusive: the presence of the plural object marker in a verb excludes the presence of the plural non-direct object marker and vice versa.

Table 29: Functions of **-wá** / **-?wá** and **-wà**

-wá / -?wá	-wà
- plural direct object marker	- plural non-direct object marker: plural subject marker plural oblique object marker (for COM, APPL)
- plural action marker: intensity	- habitual marker

In many languages the verbal coding of plurality of intransitive subjects and transitive objects is related. Sandawe is a language that displays this relation by and large (see also Kießling 2010).⁶⁸ A common form **-wa** is present in the morphemes

⁶⁸ Languages in the vicinity of Sandawe that display the same relation are the Southern Cushitic languages Alagwa and Burunge (Kießling 2010), and the Nilotic language Datooga (Kießling 1998).

that code object plurality, and in the morpheme that codes subject plurality. The tone is different for the two markers, but note that the high tone of the plural object marker corresponds to the high tone of the following object pronoun (section 6.3); similarly, the low tone of the plural non-direct object marker corresponds to the low tone of subject clitics (section 5.1).

6.4.1. The plural marker **-wá** / **-ʔwá**

The plural marker **-wá** / **-ʔwá** (PL1) is primarily a plural object marker for non-human and/or non-specific plural direct objects. In its primary function the marker appears before the object pronoun **-é** (3O). In its secondary function, the plural marker adds plurality to the meaning of the verb.

The forms of the plural object marker, **-wá** and **-ʔwá**, are in near-complementary distribution. The distribution of the allomorphs is conditioned by the preceding verb. The glottal stop in the allomorph **-ʔwá** adds a phonetic syllable to the plural marker. The following table gives a general overview of the distribution of the allomorphs, after which the categories are treated and exemplified.

Table 30: Distribution of the allomorphs of the plural object marker

-ʔwá	-wá
- monosyllabic verb roots	elsewhere, i.e.
- clipped disyllabic verb roots	- non-clippable disyllabic verb roots
	- verb roots of three syllables and more
	- extended verb stems (IT, FACT, CAUS1)

The following examples illustrate monosyllabic verb roots and the forms with the plural object marker **-ʔwá**:

bô	bô-ʔòwá-	say
khàá	khǎ-ʔáwá-	hit
tí'èé	tí'ě-ʔéwá-	reduce, diminish
xéé	xé-ʔéwá-	bring
 âŋ	 â-ʔàwá-, ǎ-ʔàwá-	see
ŋ!â	ŋ!â-ʔàwá-	grab
 â	 â-ʔáwá-	plant
 'èé	 'ě-ʔéwá-	skin

Long vowels in the verb root are shortened when **-ʔwá** is suffixed. The tone pattern of the root is maintained and realized on the short vowel. Verb roots with high-low tone patterns present some exceptions to this generalization: sometimes the high-low pattern remains high-low before the plural object marker, e.g. **bô** 'say' > **bô-ʔòwá-**; sometimes, the tone pattern on the root changes from high-low to high, e.g. **||â**

‘plant’ > ||á-ʔáwá-. The plural stem of the verb root |áŋ ‘see’ has been observed both with high-low and high tone patterns: |á-ʔáwá-, |á-ʔáwá-.

Monosyllabic verb roots with the e/a-alternation (intr./tr) have the a-form before the plural object marker -ʔwá. For more information on this vowel alternation, see section 6.3 on direct object marking.

swéé	swá-ʔáwá-	strip off (skin)
twèé	twǎ-ʔáwá-	pick
ts'éé	ts'á-ʔáwá-	drink
!hwéé	!hwá-ʔáwá-	take (seeds) out of calabash
wéé	wá-ʔáwá-	hide
hwéé	hwá-ʔáwá-	strip off (grains, leaves)

The monosyllabic verb root ŋ|wéé ‘do’ is irregular.⁶⁹

ŋ wéé	ŋ ú-ʔúwá-	do, create
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The form ŋ|ú- could be seen as a special kind of clipping, in which the root ŋ|wéé loses its vowel ee. The labial component of the initial click is realized as a vowel. Note however that there are no other examples of this kind.

Disyllabic roots that can be clipped receive the plural object marker -ʔwá. Disyllabic forms that can be clipped end in **mé**, **né**, or **wé**. The clipped form is monosyllabic. The tone pattern of the disyllabic root is realized on the single syllable, which may lead to a contour tone. The plural object marker -ʔwá is suffixed to the clipped form.⁷⁰ If the root contains a final string **mé** or **né**, the clipped form has a homorganic nasal, which is realized as a nasalized vowel before ʔ.

ʔòmé	ʔǒ-ʔówá-	cultivate
thímé	thǐ-ʔíwá-	cook
hímé	hǐ-ʔíwá-	sing
!èmé	!ǔ-ʔéwá-	accompany
òmé	ǒ-ʔówá-	lighten
tʃíné	tʃǐ-ʔíwá-	build
!ʔné	!ʔǐ-ʔíwá-	hunt
íné	ǐ-ʔíwá-	remove feathers
ŋ ùné	ŋ ǔ-ʔúwá-	wash

⁶⁹ The irregularity of this verb extends to the form which is used when an object suffix is added: ŋ|úʔíyá-, see section 6.3.

⁷⁰ The clipped form is also the basis for the suffixation of direct object pronouns, see section 6.3.

hàwé	hǎ-?áwá-	fetch
nówé	nó-?ówá-	grind
tòwé	tǒ-?ówá-	pick up (food) with mash
 hàwé	 hǎ-?áwá-	draw (bow)
!hèwé	!hě-?éwá-	burn, set fire
 úwé	 ú-?úwá-	shoot down

By exception the following disyllabic verb roots receive the marker **-?wá**.

báloró	báloró-?ówá-	herd
 hwà á	 hwà á-?áwá-	hatch
ŋ ínì	ŋ í-?íwá-	eat (meat)

The verb root **ŋ|ínì** ‘eat (meat)’ does not end in any of the strings mentioned above, but it does have a clipped form before the plural object marker **-?wá**: **ŋ|í-?íwá-**. The high-low tone pattern of the root changes to a high tone pattern when the plural object marker is suffixed. The other two verb roots are disyllabic, but cannot be clipped. Nevertheless, they receive the allomorph **-?wá**, rather than **-wá**.

In the speech variety around Farkwa, **-?wá** is also used for the plural object form of iterative stems (section 6.2.2).

tàŋk-ìmé-?éwá-

chase_away-IT-PL1

Chase away multiple times

The plural object marker **-wá** is used elsewhere, i.e. on verb roots of two syllables that cannot be clipped, on verb roots that have more than two syllables, and on extended stems. The following list illustrates verb roots with the corresponding plural object form.

mântshà	mântshà-wá-	eat
mìníkì	mìníkì-wá-	understand
twàrà	twàrà-wá-	carry
tí'íŋkhé	tí'íŋkhé-wá-	kick
!àkhíná	!àkhíná-wá-	put in armpit
 'áxé	 'áxé-wá-	not know
ŋ ókhò	ŋ ókhò-wá-	wash

The verb root **ŋ!wáné** ‘ask for’ is disyllabic and has a final string **né**, but it does not have a clipped form. The plural object marker **-wá** is used with this root:

ŋ!wáné	ŋ!wáné-wá-	ask for
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Extended stems that receive the plural object marker **-wá** are iteratives, factitives, and causatives. The examples below illustrate them. Note that the plural object form of these stems sometimes entails a more complex formation type. More information on the formation of plural object forms can be found in the sections on iterative, factitive and causative stems.

tɬ'òŋg-ìmé pierce-IT Pierce multiple times	tɬ'òŋg-ím-á-á pierce-IT-PL1-3O pierce them multiple times	
ɸík'í-sé stick_in-FACT Stick in	ɸík'í-m-sé-wá stick_in-PL-FACT-PL1 stick in (PL OBJ)	
ŋ òròŋ òrò-sé strip_off-FACT Strip off	ŋ òròŋ òrò-sé-wá, strip_off-FACT-PL1 strip off (PL OBJ)	ŋ òròŋ òrò-s-ím-á-á strip_off-FACT-IT-PL1-3O Strip them off (multiple times)
ŋ úŋ-kù stand_up-CAUS1 Put upright	ŋ úŋ-kù-wá stand_up-CAUS1-PL1 put upright (PL OBJ)	

The plural object marker is integrated into most reciprocal and some middle stems. The marker appears before the extension, different from what happens in iterative, factitive and causative stems. The table below lists some examples. Both allomorphs of the plural marker occur in reciprocal and middle stems. The verb root on which the stem is based determines which allomorph is used. Thus, monosyllabic roots and roots that can be clipped have **-ʔwá** before the reciprocal and middle stem markers; **-wá** is used elsewhere, after disyllabic and longer roots.

Table 31: The use of the plural object marker in reciprocal and middle stem formation

	Plural marker -ʔwá	Plural marker -wá
Reciprocal stems	 á-ʔwá-ŋkí see-PL1-REC See each other	bíkhé-wá-ŋkí leave-PL1-REC Leave each other
Middle stems	bô-ʔwá-ts'í say-PL1-MID1 Say to oneself	hámà-wá-ts'í beat_off-PL1-MID1 Dust off oneself

The plural object marker has two functions:

- a) as an inflectional marker coding plurality of the object participant
- b) as a marker coding plurality of action

a) The plural object marker is primarily a plural object marker for non-human objects, collective objects, and non-specific human objects. Plural objects of these three categories are coded verbally by an object suffix that follows the plural object marker. This suffix is the third person direct object pronoun **-é**, which is glossed 3O. It assimilates to the preceding vowel **a** of the plural object marker. Since there is no nominal plurality marking for non-human nouns, the verbal plural object marker is the only means of coding the plurality of the object.

gòrò=sì ɲ||úŋ-kù-wá-á
 pillar=1SG stand_up-CAUS1-PL1-3O
 I have erected pillars.

|'wèéná-xê-ŋg=à xé-?éwá-á
 hyrax-COLL-DEF=3 bring-PL1-3O
 He has brought the (group of) hyraxes.

ɲ||ókó=sà ɲ||ókhò-wá-á
 child.PL=3fSG wash-PL1-3O
 She has washed children.

The use of the plural object marker in coding the plurality of objects is inflectional for the three categories. The combination of the plural object marker and the third person object pronoun can be seen as a third person plural object marker.

The plural object marker is not used to code participant plurality with the plural object suffixes **-súŋ** (1PL), **-síŋ** (2PL), and **-?íŋ** (3PL), as these are markers of specific-human objects.⁷¹ If the plural object marker is present with these object pronouns, it codes the plurality of action, as described under b).

b) In its second use the plural object marker does not code the plurality of an object, but rather adds plurality to the meaning of the verb. Compared to the obligatory presence of the plural marker in coding the plurality of non-human and/or non-specific objects, this use of the marker is more a free choice of the speaker.

In the following examples, verb forms with the plural object marker in the left column are contrasted to forms without the plural object marker in the right column.

⁷¹ Note that suppletive singular/plural stem pairs (section 6.1) behave differently. First, the plural marker is not used with these verbs to code direct object plurality (nor plurality of action). Second, suppletive plural stems code plurality of *all* plural referents, including specific human objects. Thus, when a plural object pronoun is suffixed to a verb from the set of suppletive stems, it can only be the plural stem.

The use of the plural object marker in the left column does not depend on the direct object. The plural object marker appears on verbs with both singular and plural objects. Further, its presence does not depend on the nature of the object. The presence of the plural object marker lends an additional aspect to the meaning of the verb root, namely intensity.

màná-wá-sé-pò

know-PL1-1SG-2SG:NR

You will discover/get to know me!

màná-sé-pò

know-1SG-2SG:NR

you will know me

màná-wá-sún-pò

know-PL1-1PL-2SG:NR

You will discover/get to know us!

màná-sún-pò

know-1PL-2SG:NR

you will know us

|â-?àwá-sá-à

see-PL1-1SG-3

He stared at me

|ân-sá-à

see-1SG-3

he has seen me

|â-?àwá-súng-à

see-PL1-1PL-3

He stared at us

|ân-súng-à

see-PL-1PL-3

he has seen us

Similarly, the plural object marker occurs in a specific construction in which an event is carried out with high intensity. The verb forms used in this construction have no direct object, many verb roots are intransitive. Even so, the plural object marker is followed by the third person object suffix in this construction. The construction often contains an adverb of degree.

?úr=sà k'é-?éwá-á

very=3fSG cry-PL1-3O

She cried very much.

An applicative marker and the third person object pronoun can follow the plural object marker. The additional argument in these verbs can refer to an object on whom or because of whom an action is carried out.

?úr=sà k'é-?éwá-á-ts'è-é

very=3fSG cry-PL1-3O-APPL-3O

She cried very much because of him.

Alternatively, the additional argument may be interpreted as referring to the event itself, thus stressing the intensity with which the action is carried out.

ŋ!ě-?éwá-á-ts'è-é

laugh-PL1-3O-APPL-3O

Laugh much (because of it, on it)

The presence of the plural object marker in some middle stems (table 31) cannot be explained satisfactorily. Since middle verbs are intransitive, there is no object that can be marked for plurality. One might assume that it codes plurality of action, i.e. an action that is carried out with higher intensity or for a longer time, but this assumption does not hold for all examples. Therefore, the marker is considered to be part of middle stem formation.

wá||'á-wá-ts'í

vomit-PL1-MID1

Vomit on oneself

|â-?àwá-ts'í

see-PL1-MID1

Watch oneself

The two meanings of the plural object marker lead to polysemy when the plural object marker is combined with the third person object pronoun **-é**. First, the object pronoun can refer to a third person plural object in combination with the plural object marker. Second, the object pronoun can refer to a third person masculine singular object, in which case the plural object marker adds to the meaning of the verb.

mànà-wá-á-pò

know-PL1-3O-2SG:NR

1. You will know them (non-specific human or non-human object)
2. You will get to know him!

6.4.2. The plural marker –wà

The plural marker –wà (PL2) primarily codes plurality of non-human and/or non-specific non-direct objects, i.e. subject arguments and object arguments which are introduced by the comitative and applicative derivations. The second meaning of the marker is the coding of plurality of action of verbs without verbal object suffix, i.e. as a habitual marker.

As a plural marker of oblique (comitative/instrumental and applicative) objects, –wà is separated from the verbal object pronoun. The marker precedes the verbal case marker plus the third person object pronoun (–é). Thus verbs with non-human and/or non-specific oblique objects have the following form:

Comitative/instrumental:	V–wà–ká–á
Applicative:	V–wà–ts’è–é

For more information and examples see section 6.5.

As a plural marker for subject arguments, –wà codes plurality of non-human and/or non-specific subjects.⁷² The plural marker is the final morpheme of the verb form and forms a plural subject stem. The morpheme is attached both to verb roots and extended stems.

mântshà	mântshà–wà	eat (PL subject stem)
ŋ ókhò–ts’í	ŋ ókhò–ts’í–wà	wash oneself (PL subject stem)

The plural subject stem is usually combined with a third person subject clitic, which is attached to the verb or another constituent.

kúriyò–ŋŋ=kwà |’útshúkù–wà
 Kurio-INSTR=OPT.3 pass-PL2
 They should pass through Kurio.

|’útshúkù–wà–ì
 pass-PL2-3:NR
 They will pass.

However, when a lexical subject carries a subject focus marker, there is no subject clitic. The plural subject marker on the verb is still present.

⁷² Specific animate subjects are coded by separate subject clitics. The plurality of these arguments is never coded by the plural marker.

hùmbù-áá ʋ'útshúkù-wà
 cow-SFOC SV.pass-PL2
 Cows passed.

In its secondary function, the plural non-direct object marker **-wà** is used as a habitual marker. It is attached both to intransitive and transitive verbs, but only to verbs without verbal object pronouns.

mìndà-tà-nà=sì hík'ù-wà
 field-in-to=1SG go:SG-PL2
 I use to go to the field.

hóts=ì mântshà-wà
 what?=2SG eat-PL2
 What do you usually eat?

The two uses of the plural non-direct object marker can lead to polysemy. The following example shows how a verb with the plural marker can code plural subjects. At the same time, the verb has an habitual meaning for a third person singular subject.

mântshà-wà=à
 eat-PL2=3
 1. They ate; 2. He usually eats

6.5. Verbal case marking: benefactive, comitative, applicative

Oblique objects are non-core arguments of the clause. An oblique object may be a separate constituent in the clause (a postpositional phrase), or it may be coded as a pronoun on the verb. When an oblique object is marked on the verb, it is coded by an object suffix preceded by a derivational marker. The following three derivational markers introduce oblique objects into the verbal argument structure:

- 1) the benefactive marker **-x̂**
- 2) the comitative marker **-ká**
- 3) the applicative marker **-ts'è**

Derivational markers are suffixed to a root or an extended stem, and follow direct object pronouns, if present.

xwànté-é-x-'sé=sà
 stir-3O-BEN-1SG=3fSG
 She cooked it (mash) for me

khòó=sí tʰíné-súʰk-é-x-ʰpó
 house=1SG SV.build-CAUS2-3O-BEN-2SG
 I made him build a house for you

It is the choice of the speaker to include the oblique object in the verb. Usually it is possible to express the extra argument periphrastically, i.e. in a postpositional phrase. Thus, the verb may always occur without derivational marker and oblique object marking. There is one exception, **nóká** 'bring', which cannot occur without the derivational morpheme **-ká**. Morphologically, it behaves like other verbs with a comitative morpheme: the plurality of inanimate objects is coded by the plural morpheme **-wà** before the comitative marker (cf. section 6.5.2).

nó-ká-á, nó-wà-ká-á * < **nó**
 bring-COM-3O bring-PL2-COM-3O
 bring it bring them

The coding of multiple oblique objects is rare. There are a few intransitive verbs that can have both comitative and benefactive oblique objects: **híkʷ / níʷ** 'go (SG/PL)'; **ʃí / ʃàtí** 'come (SG/PL)'; **thá / gùʃbé** 'run (SG/PL)'. The comitative always precedes the benefactive marker.

ʃàtí-ká-á-x-ʰsé=kwè
 come:PL-COM-3O-BEN-1SG=OPT.2PL
 You (PL) come with it for me, bring it to me!

6.5.1. Benefactive **-x`**

The benefactive morpheme **-x`** introduces a pronominal object, which marks for whom the event is carried out. The morpheme has a floating low tone, which causes the high tone of the object pronoun to be realized as a downstepped high tone. It has an allomorph, **-kw`**, which is used before third person singular object suffixes.⁷³ The following paradigm shows the verb **hèmé** 'pay' with the benefactive morpheme and all object suffixes.

⁷³ Note that this allomorph plus object pronoun (**-é / -ésú**) and the causative extension **-kù** plus **é / ésú** are homophonous, e.g. **màntshà-kw-ʰé** '1. eat for him; 2. feed him'.

||hèmé > ||hèmé-x̀ – ‘pay for (OBJ)’

OBJ	
1SG	hèmé-x̀- ¹ sé
2SG	hèmé-x̀- ¹ pó
3O	hèmé- ¹ kw-é
3fSG	hèmé- ¹ kw-ésú
1PL	hèmé-x̀- ¹ súŋ
2PL	hèmé-x̀- ¹ síŋ
3PL	hèmé-x̀- ¹ ŋíŋ

There is some variation regarding the form of the benefactive morpheme before third person plural oblique objects. The most regular form consists of the benefactive morpheme $-x̀$ plus $-ŋíŋ$, as demonstrated above. However, in elicitation the benefactive morpheme was sometimes doubled, i.e. both $-x̀$ and $-kẁ$ were used before $-ŋíŋ$:

hàáwé-x̀-¹kw-ŋíŋ=sí

fetch.3O-BEN-BEN-3PL=1SG

I fetched it for them

There is no separate form for inanimate and/or non-specific third person plural benefactive objects.

The benefactive morpheme expresses that the action of the verb is carried out on behalf of the object. Usually, the object benefits from the action (hence the term benefactive), e.g.:

bô-x̀ –	tell	<	bô	say
nóká-á-x̀ –	bring	<	nóká-á	bring
tíkínáá-x̀ –	leave over (food) for	<	tíkínáá	leave over (food)
thímé-x̀ –	cook for	<	thímé	cook
t́íné-x̀ –	build for	<	t́íné	build
ŋ ókhò-x̀ –	wash for	<	ŋ ókhò	wash

However, some ‘benefactive’ verbs show that the oblique object can be negatively affected by the action.

pàrókó-áá ¹ŋísì-x̀-¹sé

parish_priest-SFOC SV.refuse-BEN-1SG

The priest has refused me.

mântshà-á-x-'sá=à

eat-3O-BEN-1SG=3

He has eaten it for me (i.e. he has eaten my food).

Verbs with the benefactive morpheme must be followed by a verbal object pronoun. An alternative way of expressing a benefactive oblique object is the postposition **-mèé** ‘on behalf of’. In this construction, the oblique object is an independent pronoun or a noun (phrase). The verb does not have a benefactive morpheme in this construction.

hàpú-mèé=sí ***thímé**

you-sake=1SG SV.cook

I cooked for you.

wàkháá=sà **nóká-á** **hàásù** **ɲ|èmésù-mèé**

firewood=3fSG bring-3O DEM2.f person.f-sake

She brought firewood for that woman.

6.5.2. Comitative –ká

The derivational marker **-ká** marks comitative oblique objects. The marker is suffixed to a verb root or an extended stem. It is followed by an object suffix that codes the comitative or instrumental pronominal object, cf. the paradigm of the verb **ɲ||èé** ‘enter’ with the marker **-ká** and all object suffixes.

ɲ||èé > **ɲ||èé-ká-** ‘enter with (OBJ)’

OBJ	
1SG	ɲ èé-ká-sé
2SG	ɲ èé-ká-pó
3O	ɲ èé-ká-á
3fSG	ɲ èé-ká-ású
1PL	ɲ èé-ká-suŋ
2PL	ɲ èé-ká-síŋ
3PL	ɲ èé-ká-ŋíŋ
PL-3O	ɲ èé-wà-ká-á

Object suffixes with an initial vowel **e**, i.e. 3O and 3fSG, assimilate to the preceding vowel **a** of the comitative/instrumental marker.

Plural inanimate and/or non-specific oblique objects are coded by the non-direct object plural marker **-wà-**. The marker occurs before the comitative/instrumental marker.

dʒàní=sí thàts'é-wà-ká-á
 arrow=1SG (SV.)shoot-PL2-COM-3O
 I fired with arrows.

Because of the position of the plural marker before the derivational marker, one might assume that it codes either plurality of another argument, or plurality of action. The two clauses below show that neither alternative is right.

dí?á=sà |í-wà-ká-á
 egg=3fSG come:SG-PL2-COM-3O
 She has come with eggs, she has brought eggs

dí?á=?à ɲ|àtí-wà-ká-á
 egg=3PL come:PL-PL2-COM-3O
 They have come with eggs, they have brought eggs

The subject argument of the verb in the first clause is a singular referent, 'she'. For plural subject referents, the suppletive plural stem **ɲ|àtí** 'come (PL)' is used (see second clause), but this has no consequences for the plural marker **-wà-**. In other words, the plural marker **-wà-** is not used to code the plurality of an argument other than the oblique object.⁷⁴ Moreover, each of the clauses above describes a single action, in which the subject has come with multiple objects. Thus **wà-** is not used to code the plurality of action.

The marker **-ká** introduces comitative oblique objects. The event as expressed by the verb is carried out (together) with the oblique object. The comitative oblique object can be animate or inanimate. Many examples are comitative verbs derived from intransitive verbs of movement. The following list illustrates this.

hík'ɲ-ká-	go with; send (SG stem)	<	hík'ɲ	go (SG stem)
ní?ɲ-ká-	go with; send (PL stem)	<	ní?ɲ	go (PL stem)
nó-ká-	bring			
thânɲ-ká-	run here with	<	thânɲ	run (centripetal)
 í-ká-	come with; bring (SG stem)	<	 í	come (SG stem)
ɲ àtí-ká-	come with; bring (PL stem)	<	ɲ àtí	come (PL stem)
ɲ èé-ká-	enter with	<	ɲ èé	enter

The comitative derivation is also used in the verb **ríngó-ká-**. This is a lexicalized comitative verb with a specialized meaning. It expresses the use of metaphoric language with (a) person(s).

⁷⁴ Transitive verbs cannot have both a plural inanimate/non-specific direct object and a plural inanimate/non-specific oblique object, i.e. verbs of the form **V-wá-á-wà-ká-á** do not exist. The reason is a general phonotactic restriction that two phonetically near-identical morphemes do not occur in a sequence.

ríngó-ká- talk metaphorically to < **ríngó** go round

In a number of cases the oblique object after the comitative marker is interpreted as the instrument with which the event is carried out.

dùbé-ká-	hit with	<	dùbé	hit
thàts'é-ká-	shoot with	<	thàts'é	shoot, fire
ts'á-á-ká-	drink it with	<	ts'á-á	drink (OBJ)
xìlé-ká-	roughen with, on	<	xìlé	roughen

The following example shows an instrumental oblique object.

sé-é=kwè **k'àmê=?è** **ts'á-á-ká-á**
 1SG-3O=OPT.2PL beer=1SG:OPT drink-3O-COM-3O
 You give it to me, so I drink beer with it.

The utterance consists of two clauses. The first clause has three arguments: an agent (2PL), a recipient object (1SG), and a patient object (3O). The pronominal patient object, 'it', refers to the money which the addressees should give to the speaker. The second clause shows how the money will be used: as an instrument to (buy and) drink beer. Again the clause has three arguments: an agent subject (1SG), a patient object ('beer', 3O), and an instrumental oblique object (3O). The pronominal oblique object after the comitative marker refers to the money.

If the oblique object of a comitative verb is specified by a noun phrase as well, the noun phrase does not need additional marking. In other words, the noun phrase, which is coreferential with the verbal oblique object, behaves as a direct object of the comitative verb.

kitabú=kò **|í-ká-á**
 book=2SG:OPT come:SG-COM-3O
 Come with the book!

The same applies if the oblique object is the instrument of an event.

dǎnǎnǎ=sí **thàts'é-ká-á**
 arrow=1SG (SV.)shoot-COM-3O
 I fired with an arrow.

There is an alternative instrumental construction, in which the instrument is only specified by a postpositional phrase. In this case the verb does not contain the pronominal oblique object, nor the comitative marker. The postposition that is used in these constructions is **-ŋŋ** 'with, using'.

dlʒàní-ʔín=sì thàts'è

arrow-INSTR=1SG shoot

I fired with an arrow.

Comitative verbs are analyzed as verbs with an additional comitative or instrumental oblique object. The comitative morpheme introduces the pronoun that marks this object. There is one specific use of the comitative verb that does not require a pronominal oblique object: a form with the plural marker **-wà-** but without an object pronoun. This form occurs with subjects marked for the optative. It has an imperfective reading, in contrast to optative forms with an oblique object pronoun. The latter forms imply that the action will be completed (see also Eaton (2008) on object marking and aspect in Sandawe).

|í-wà-ká=kò

come:SG-PL2-COM=2SG:OPT

Start bringing, go on bringing!

vs.

|í-wà-ká-á=kò

come:SG-PL2-COM-3O=2SG:OPT

Bring them!

thàts'è-wà-ká=kò

shoot-PL2-COM=2SG:OPT

Start firing, go on firing!

vs.

thàts'è-wà-ká-á=kò

shoot-PL2-COM-3O=2SG:OPT

Shoot them, fire them!

6.5.3. Applicative **-ts'è**

The applicative morpheme **-ts'è** introduces an additional pronominal object into the argument structure of a verb. The suffixation of object pronouns to this morpheme leads to several morphophonological changes and irregular forms. Consider the following paradigm, which is representative for the combination of the applicative morpheme and the object pronouns. The applicative verb **síyé-ts'è** 'deprive' is derived from the verb root **síyé** 'take (SG OBJ)'.¹

síyé > **síyé-ts'è-** 'take it from (OBJ), deprive (OBJ)'

OBJ		
1SG	síyé-ts'è-sé	> síyéʔètshé
2SG	síyé-ts'è-pó	> síyéʔé'pó
3O	síyé-ts'è-é	> síyéts'èé
3fSG	síyé-ts'è-ésú	> síyéts'èésú
1PL	síyé-ts'è-sún	> síyéʔètshún
2PL	síyé-ts'è-sín	> síyéʔètshín
3PL	síyé-ts'è-ʔín	> síyé'ts'ín
PL-3O	síyé-wà-ts'è-é	> síyéwàts'èé

- The paradigm shows that the morpheme **-ts'è** only retains its original form when an object pronoun follows which is based on the third person object pronoun **-é**, i.e. 3O, 3fSG, and PL-3O.
- When the third person plural object pronoun is suffixed, the morpheme-final vowel **e** and the suffix-initial consonant **ʔ** are omitted. The low tone of the applicative morpheme leads to a downstepped high tone on the applicative plus object suffix: **-ts'ɪŋ**.
- When object suffixes with an initial **s** follow the applicative morpheme, i.e. 1SG, 1PL, and 2PL, a complex realization results. The consonant **ts'** becomes **tsh**. Moreover, it is preceded by a released glottal stop: **ts'è-s** > **ʔtsh**.⁷⁵
- When the second person singular suffix **-pó** follows the applicative morpheme, the applicative morpheme is reduced to a released glottal stop: **ts'è-pó** > **ʔpó**.⁷⁶

The plurality of third person plural oblique objects (inanimate and/or non-specific) is coded by the plural marker **-wà-**. The marker precedes the applicative morpheme: **-wà-ts'è-é**. The plural marker cannot co-occur with the plural object marker **-wá** / **-ʔwá** for direct objects. However, when a pronominal oblique object follows a plural direct object, it may be interpreted as a plural object too, even if it is not overtly marked as such.

|'ɪŋkhâ-n-sò **mìsíkóó-xê-ŋ** **tʃɪ-ʔíwá-á-ts'è-é=ʔà**

bee-DEF-PL beehive-COLL-DEF build-PL1-3O-APPL-3O=3PL

The bees have built in the (group of) beehives. (lit. they have build them in it)

kìrìngó=sí **'hí|'á-wá-á-ts'è-é**

cow_bell=1SG SV.tie-PL1-3O-APPL-3O

I have tied bells onto them (cows).

The applicative derivation adds a pronominal oblique object to the argument structure of a verb. Generally a spatial relation is involved with the applicative verb: the event (or the direct object) is directed towards or away from the oblique object, or the event takes place on (the location of) the oblique object. The following list illustrates some applicative derivations:

hí 'á-ts'è-	tie on(to) OBJ	<	hí 'á	tie
hón ón-ts'è-	pour into OBJ	<	hón ón	pour
pèé-ts'è-	put on(to) OBJ, with OBJ	<	pèé	put (SG stem)
síyé-ts'è-	deprive, take from OBJ	<	síyé	take (SG stem)

⁷⁵ Only one variant occurs in my data, but Eaton (2008) notes two distinct variants: [**tsh**] and [**ʔs**]. She lists the following realizations for the applicative morpheme plus object suffixes: 1SG [**tʃ^he**], [**ʔse**]; 1PL [**tʃ^hũ**], [**ʔsũ**]; 2PL [**tʃ^hi**], [**ʔsí**]. Eaton (2008) also mentions a different realization of the applicative morpheme plus 2SG object suffix: [**pa**].

⁷⁶ This realization can be compared to the locative postposition **-ts'ɪ**, which can be realized as a released glottal stop (see section 3.6.3).

tʃíné-ts'è-	build upon, in OBJ	<	tʃíné	build
ʔíh-mé-ts'è-	lock up OBJ	<	ʔíh-mé	close
ʔísá-ts'è-	steal from OBJ	<	ʔísá	steal

The oblique object of an applicative verb must be specified by an object pronoun. The oblique object may also be coded in the nominal domain, but this is not obligatory. When the argument is specified lexically, it functions as a direct object of the applicative verb. No postpositions are used to express the spatial relation between the oblique object and the event.

ʔàá=kò **hí|'á-á-ts'è-é**
 goat=2SG:OPT tie-3O-APPL-3O
 Bind it on the goat!

However, the direct object of an applicative verb may be expressed lexically too. Thus, in the nominal domain there is no syntactic distinction between the direct and the oblique object of an applicative verb. In the following clause, the nominal argument is the direct object of the applicative verb; the oblique object is only marked pronominally.

mizigo=kò **hí|'á-wá-á-ʔàtshún**
 baggage=2SG:OPT tie-PL1-3O-APPL.1PL
 Bind the loads onto us!

When both object arguments are expressed lexically, there are two lexical direct objects. Generally, the additional argument, which is introduced by the applicative derivation, precedes the first object. Moreover, it has a definiteness marker.

karatasi-ŋ **kitabu=sì** **pèé-ts'è-é**
 paper-DEF book=1SG put:SG-3O-APPL-3O
 I have put a book on the paper.

Applicative verbs that introduce a locative argument may alternatively be expressed by a locative construction. This construction consists of a locative postpositional phrase. The verb cannot have an applicative marker, nor a pronominal oblique object in this case, e.g.:

karatasi-n-tà-nà=sì **pèé**
 paper-DEF-in-DIR=1SG put:SG:3O
 I have put it on the paper.

In the following example with an applicative verb, the direct object (which is marked after the iterative morpheme) is coreferential with the location in which the locking up takes place. The oblique object of the verb is the patient of the locking

up. The applicative verb expresses that an object is locked up inside a location, literally by ‘closing something upon/around the object’.

dámà-n-sù wàlágáá-tà=?à ?ífi-mé-é-ts’è-ésú
 heifer-DEF-f cowshed-in=3PL close-IT-3O-APPL-3fSG
 They locked up the heifer in a cowshed.

The example shows that the feminine oblique object of the verb is coreferential with the lexical direct object ‘the heifer’. The pronominal direct object refers to the postpositional phrase ‘in a cowshed’. Interestingly there is a mismatch between the syntactic status of the arguments in the verbal and the nominal domain: the verbal oblique object is coreferential with a direct lexical object; the verbal direct object is a postpositional phrase in the nominal domain.

A final note concerns the use of the applicative morpheme with third person object suffixes. In a number of cases, **ts’è-é**, or **-wá-á-ts’è** / **-?wá-á-ts’è** can be used to express that the event is carried out with high intensity (see also section 6.4).

?úr=sà k’é-?éwá-á-’ts’-é
 very=3fSG cry-PL1-3O-APPL-3O
 She cried very much because of him.

?úrì=sì k’ée-ts’è-é
 very=1SG cry-APPL-3O
 I have cried very much

or: **?úrì=sì k’é-?éwá-á-ts’è**
 very=1SG cry-PL1-3O-APPL

ŋ!ě-?éwá-á-’ts’-é
 laugh-PL1-3O-APPL-3O
 Laugh much

bô-?òwá-’ts’-é
 say-PL1-3O-APPL-3O
 Say much

Although an object appears to be marked in case of **-wá-á-ts’è** / **-?wá-á-ts’è**, verbs cannot have a lexical direct object in this construction. Only an adverb of degree may be added to this construction.

6.6. The zero verb stem for acts of exchange

One verb has a zero stem and only consists of pronominal markers and an (optional) plural object marker. The verb expresses an act of exchange (‘give’ or ‘receive, take’). When three arguments are marked in the clause, it expresses ‘give’. The subject is the agent of the exchange and may, in the form of a subject clitic, occur on

a non-verbal constituent. The other two arguments, the patient object and the recipient object, form the verb form in the example below.

ts'â=sì pó-é
 water=1SG 2SG-3O
 I gave you water.

The recipient object can be singular or plural. A plural object is preceded by the plural object marker –**ʔwá**.

mátó pó-ʔówá-â-sì
 gourd 2SG-PL1-3O-1SG:NR
 I will give you gourds.

The following paradigm lists verb forms according to person, gender, and number of the recipient object. The patient object (–**é**) has singular number. For reference, the regular verbal object pronouns are presented on the right.

1SG	ts'â=à sé-é	He gave me water	– sé
	water=3 1SG-3O		
2SG	ts'â=à pó-é	He gave you water	– pó
	water=3 2SG-3O		
3O	ts'â=à ʔí-é	He gave him water	– é
	water=3 3O-3O		
3fSG	ts'â=à ʔí-é-sú	He gave her water	–(é)– sú
	water=3 3O-3O-3fSG		
1PL	ts'â=à súŋg-é	He gave us water	– súŋ
	water=3 1PL-3O		
2PL	ts'â=à síŋg-é	He gave you (PL) water	– síŋ
	water=3 2PL-3O		
3PL	ts'â=à ʔíŋg-é-ʔíŋ	He gave them water	– ʔíŋ
	water=3 3PL-3O-3PL		

The paradigm below presents forms with a plural patient object.

1SG	mátó=à sé-ʔéwá-á	He gave me gourds
	gourd=3 1SG-PL1-3O	
2SG	mátó=à pó-ʔówá-á	He gave you gourds
	gourd=3 2SG-PL1-3O	
3O	mátó=à ʔí-ʔíwá-á	He gave him gourds
	gourd=3 3O-PL1-3O	
3fSG	mátó=à ʔí-ʔíwá-á-sú	He gave her gourds
	gourd=3 3O-PL1-3O-3fSG	

1 PL	mátó=à sù-ṙwá-á	He gave us gourds
	gourd=3 1PL-PL1-3O	
2 PL	mátó=à sù-ṙwá-á	He gave you (PL) gourds
	gourd=3 2PL-PL1-3O	
3 PL	mátó=à ṙ-ṙwá-á-ṙṙ	He gave them gourds
	gourd=3 3PL-PL1-3O-3PL	

Note the deviant forms for third person objects. The third person (masculine) object marker is **ṙ** (cf. the regular verbal object pronoun **-é**). The third person recipient feminine object marker **-sù** is added after the patient object, while the third person object marker **ṙ** before the patient object is retained. The third person plural object marker **-ṙṙ** (which is realized as **-ṙ** before a glottal stop) occurs both before and after the patient object.

When only two arguments are expressed in the clause, the verb expresses ‘receive, take’. This use of the zero verb is rare and has only been attested in commands. The subject, to whom the command is addressed, is the intended beneficiary of the exchange. The other argument is the patient object.

ṙé=kò

3O=2SG:OPT

Take it!

kwàṙáná=kò ṙé-ṙwá-á

five=2SG:OPT 3O-PL1-3O

Take five (of them)!

Note that the plural object in the second example occurs twice, both before and after the plural object marker **-ṙwá**.

6.7. Special verbs

There are four types of verbs with special pronominal subject marking:

- ‘to be (somewhere)’
- ‘not to be’
- ‘to have’
- adjectival verbs.

These verbs have a single series of (verbal) subject suffixes, which do not mark modality. Formally, these subject pronouns are almost identical to the non-realis subject clitics (see section 5.1.2). Except for **tshèé** ‘not be’, the verbs have a morpheme **-sí** in common, which precedes the subject marker. **-sí** is glossed ‘BE’ in transcriptions.

6.7.1. ‘To be (somewhere)’ and ‘not to be’

The paradigm of the locative verb ‘to be (somewhere)’ is based on two verb stems: **kóó-sí** for singular subjects and **nèé-sí** for plural subjects. The etymology of the element **kóó** is unclear, compare however **nèé** ‘to stay (PL)’ to the plural stem.

The subject marker is obligatorily attached to the verb stem.

1SG	kóó-sí-sì
2SG	kóó-sí-pò
3mSG	kóó-s-ê
3fSG	kóó-sú-sù
1PL	nèé-sú-sùŋ
2PL	nèé-sí-sìŋ
3PL	nèé-sí-sò

Note that the final vowel of the verb stem assimilates to the vowel of the subject marker if this is **u**: **kóó-sí-sù** > **kóósúsù** ‘she is present’; **nèé-sí-sùŋ** > **nèésúsùŋ** ‘we are present’.

The verb may be used with or without a complement. The verb is often used without a complement as the introduction to a greeting. The second speaker in the dialogue confirms that s/he is around, typically after a period of absence.

kóó-sí-pò=nè

be_present:SG-BE-2SG=Y/NQ
Are you present?

?ééé, kóó-sí-sì

yes be_present:SG-BE-1SG
Yes, I am present.

When the verb occurs with a complement, it refers to a location.

kóó-s-ê

be_present:SG-BE-3
He is in the field.

mìndà-tà

field-in

tsí kóó-sí-sì

I be_present:SG-BE-1SG
I live close to this place.

?ò bèébà

here be_near

In negation the suppletive verb stem **tshèé** ‘not be (present)’ is used, which is followed by a subject marker.⁷⁷

1SG	tshèé-sè
2SG	tshèé-pò
3mSG	tshèé
3fSG	tshèé-sù
1PL	tshèé-sùŋ
2PL	tshèé-sùŋ
3PL	tshèé-sò

The subject markers are formally almost identical to the subject markers that follow the affirmative stems **kóó-sí** and **nèé-sí**, but some forms are irregular: **-sè** vs. **-̀sù** (1SG); **-sù** vs. **-sù** (3fSG); **tshèé** (3mSG) has no overt subject marker.

6.7.2. ‘To have’

The verb ‘to have’ is a derived form which consists of a noun (the possessed item), the morpheme **-sí**, and a subject marker. The subject marker is obligatorily attached to the verb stem and does not mark modality. The forms below show the paradigm with the possessed item **ɖʒàní** ‘arrow’:

1SG	ɖʒàní-sí-sù	I have an arrow
2SG	ɖʒàní-sí-pò	You have an arrow
3mSG	ɖʒàní-s-ê	He has an arrow
3fSG	ɖʒàní-sú-sù	She has an arrow
1PL	ɖʒàní-sú-sùŋ	We have an arrow
2PL	ɖʒàní-sí-sùŋ	You (PL) have an arrow
3PL	ɖʒàní-sí-sò	They have an arrow

Nouns, except for some that denote humans, have no means of marking plural number (see section 3.3). However, in the verb ‘to have’, plural number of the possessed noun is marked by a plural marker **-wà**, which is attached after the noun and before **-sí**, e.g. **ɖʒàní-wà-sú-sùŋ** ‘we have arrows’.

The negative equivalent of this construction uses the invariable final negation clitic **-ts’é**, e.g.:

ɖʒàní-s-ê-ts’é

arrow-BE-3=NEG2

He doesn’t have an arrow.

⁷⁷ Note the formal similarity of this verb to the negative realis clitic (section 5.3.1).

faré-ỳ **dògò-s-ê=ts'é**

lie-AG relative-BE-3=NEG2

A liar has no relatives (Saying; 'People don't want to be associated with liars')

6.7.3. Adjectival verbs

Adjectival verbs are derived from verb roots by the morpheme **-sí**. They express a state or condition of the subject.

màngàdzà	become long	>	màngàdzà-sí	be long
thúnkà	become short	>	thúnkà-sí	be short
 'èé	look at	>	 'èé-sí	be alive
ts'ìmàṅkwé	shine	>	ts'ìmàṅkwé-sí	be shiny
bà?é	grow big	>	bà?á-sí	be big
mànà	know	>	mànà-sí	know, have knowledge
!héké	become insane	>	!héké-sí	be insane

The subject marker is obligatorily attached to the verb stem and does not code modality.

màngàdzà-sí-sì	I am tall
màngàdzà-sí-pò	You are tall
màngàdzà-s-ê	He is tall
màngàdzà-sí-sù	She is tall
màngàdzà-sí-sùṅ	We are tall
màngàdzà-sí-sìṅ	You (PL) are tall
màngàdzà-sí-sò	They are tall

When the plural marker **-wà** is added (before **-sí**), it marks plurality of the subject. It is used to mark the plurality of non-human subjects; these cannot have a 3PL subject marker:

thèé hèéxwè **màngàdzà-wà-s-ê**

tree DEM1.COLL become_long-PL2-BE-3

These trees are tall.

The plural marker may be added to 3PL human forms as well: **màngàdzà-wà-sí-sò** 'they are tall'.

The negation marker **=^tts'é** marks the negative equivalent of these constructions. The clitic is attached after the subject marker.

khé?é-s-ê=ts'é	he is deaf	<	khé?é	hear
bô-s-ê=ts'é	he is mute	<	bô	say

Chapter 7

Coordinating and subordinating elements

The following sections discuss five types of coordinating and subordinating elements:

- the linker **-ŋ**
- coordinating conjunctions based on **nì-**
- the coordinating conjunction **hàà**
- narrative (coordinating) conjunctions
- the subordinating conjunction **hí-** and the subordinate clause marker **ɛŋ**.

There is overlap between the coordinating conjunctions. Further, **nì(ŋ)** and **hàà** are used to conjoin both phrases and clauses.

Except for **nì(ŋ)** and **hàà**, all conjunctions show some kind of pronominal marking, which is coreferential with the clausal subject. In narrative coordinating conjunctions, the pronominal element has merged with the conjunction; in the other conjunctions the subject marker can easily be distinguished from the conjunction (see section 4.4 for an overview of the morphology of pronominal forms).

7.1. The linker **-ŋ**

The linker **-ŋ** encompasses three types of linking elements:

- the verb linker **-ŋ** (VL)
- the coordinating linker **-ŋ** (CL), which is attached to the conjunction **nì**
- the linker **-ŋ** (L) in enumerations.

The verb linker **-ŋ** (VL) is used to link two or more verbs in a sentence (see also Eaton (2003) for a discussion of multi-verb constructions in Sandawe). It can link two or more main verbs to each other or an operator verb to a main verb. In both cases, the multi-verb constructions share the same subject.

The following six sentences exemplify linked main verbs. The examples show that linked verbs generally express separate actions that are carried out consecutively, e.g. ‘dice+spread out’; ‘meet+grab’. For some cases however, the actions can be interpreted as part of one event, e.g. ‘go round+move’; ‘get up+run’.

nà=ʔà-ŋ ɲ!átháŋg-é-ŋ ʔàànákhà-á
 CNJ=3PL-CL dice-3O-VL (VV.)spread_out-3O
 And they diced it and spread it out.

xòóxòrì-ŋ pàà thâ, hèwé wàʔàmèé=à !'òówé-ŋ 'sìyé
 crow-DEF CNJ2.3 run:SG he (POSS.)companion=3 meet.3O-VL VV.take:SG
 And the crow ran, met his companion and grabbed him.

lááʔè-ŋ kèlèmbâ-ŋg=à síyé-ŋ '||wáá tàná-ʔà-tè=à
 hare-DEF (POSS.)skin-DEF=3 take:SG-VL VV.hide.3O elsewhere-LOC-area=3
 He took the hare's skin and hid it somewhere else.

níʔi=ʔò-yóóó nò=ʔò-ŋ hétt'í
 go:PL=1PL:OPT=EXCL CNJ=1PL:OPT-CL over_there
 Let's go, and let's go over there,

!'wáá 'dúúrù-ts'í níʔi-ŋ nèé-wà
 pool POSS.other_side-LOC go:PL-VL stay:PL-PL2
 on the other side of the water and live there.

nì-ŋ káákà hèwé-kí ríngó=à-ŋ màʔé ʔàʔé=síʔí kè-ì
 CNJ-CL dog he-TOP go_round=3-VL move later_on=TOP2 climb-3:NR
 And the dog is walking round as if he will climb it.

pàà hèwé tsùú-ŋ háŋgà=à-ŋ thâ
 CNJ2.3 he animal-DEF get_up=3-VL run:SG
 And this animal gets up and runs.

The verb linker is also used in constructions that consist of an operator verb and a main verb. First, it links the verbs **bààrà** 'start', **!'òókhà** 'finish', and **dàá** 'be able' to their (preceding) complements.

súŋ ||ò-ʔò ɲ||èé-ŋ dàá=sùŋ=ts'é
 we over_there-LOC enter-VL be_able=1PL:NR=NEG2
 We won't be able to get over there.

hí-ì ɲ||èé-ŋ !'òókhà=ìʔí
 SUB:CNJ-2SG cut-VL finish=SUB
 When you have finished cutting, ...

Second, the linker is used to link the operator verb **ʔiyé** 'stay (SG)' or **nèé** 'stay (PL)' to a main verb in a construction which expresses progressive aspect. The operator verb usually precedes the main verb and serves as the host for the linker.

?àà nèé-ŋ ˈnĩŋ=yóóó

CNJ2.3PL stay:PL-VL VV.go:PL=EXCL

And they were going/continued going.

?ix=à?à nèé-ŋ ˈdára-wǎŋki

thus=3PL stay:PL-VL VV.wait-REC

Thus they were waiting for each other.

The verb linker is usually attached directly after the verb, but it may be preceded by a subject/modality clitic.

?iyé=sí-ŋ núwá=sí mǎntshà

stay:SG=1SG-VL mash=1SG eat

I sit down and eat mash.

?iyé=kò-ŋ mǎntshà

stay:SG=2SG-VL eat

Go on eating!

The linker **-ŋ** (CL) is attached to the coordinating conjunction **nì**. The linker remains the final element when a realis or optative subject clitic is attached after the conjunction. **nì** is most frequently used to conjoin clauses. In enumerations it can conjoin phrases as well, in which case it precedes the final phrase of a list (see below at the linker **-íŋ**):

?èè ?òò ||òmé-ŋ ˈ!ǎŋ, nì=kò-ŋ hùsí mǎrìgùsé ŋ||òó

yes CNJ2.1PL:OPT illuminate-VL VV.see CNJ=2SG:OPT-CL indeed treat child

Yes, let's shed light on it and see; and you indeed should treat the child.

hèsó mǎlámbo-ŋ pàà |hòròŋ pàà ts'á-àà ŋ||èé nì-ŋ !'òómé

they (POSS.)big_trough-DEFCNJ2.3 be_pierced CNJ2.3 water-SFOC enter CNJ-CL fill.3O

Their trough was pierced, and water entered and filled it.

As the examples above show, the coordinating conjunction with the linker **nì-ŋ** conjoins both clauses with shared and different subjects. There is thus some overlap between the coordinating conjunction with the linker and the verb linker in linked verbs: both can conjoin verbs with shared subjects, which express consecutive actions. This is confirmed by a few examples which contain both a verb linker **-ŋ** (VL) and the coordinating conjunction with the linker **nì-ŋ** (CL).

dó='kwáá ?èè hík'ŋ=yóóó

wait=2SG:HORT CNJ2.1SG:OPT go:SG=EXCL

Please wait, so that I go ...

nè=ʔè-ŋ **ŋ||ókhò-ts'í-ŋ** **nè=ʔè-ŋ** |í
 CNJ=1SG:OPT-CL wash_oneself-MID1-VL CNJ=1SG:OPT-CL come:SG
 and wash myself and come back.

ʔútè **màákhà** **kúrìyò ŋ|òmósò** **msérà-ts'=àʔà** **hàwé-ŋ** **nì-ŋ** **ts'â-kù**
 yesterday (POSS.)year Kurio (POSS.)people Msera-LOC=3PL fetch-VL CNJ-CL drink-CAUS1
 Last year, the people of Kurio fetched water and drenched in Msera.

The linking clitic **-ŋ** (L) links elements when they are listed in an enumeration. It is attached to nouns, proper names or verbs. An enumeration consists of two or more equivalent elements (nouns, proper names, or verbal clauses). All elements except the final one contain the linker. The final item in the list may be preceded by the coordinating conjunction **nì**.

The clitic which is used in enumerations has, as opposed to the verb linker and the coordinating linker, a high tone, which may be realized on an extra high pitch. Further, in lists of nouns and proper names the final element is realized on a lower pitch level.

mátó-ŋ **kàkúrù=kò** **síyé**
 gourd-L calabash=2SG:OPT take:SG
 Take a gourd and a calabash!

nàtálí-ŋ **ʔàfá-ŋ** **nì** **nàngílé**
 Nathali-L Afa-L and Nangile
 Nathali, Afa, and Nangile

When verbal clauses are linked, the linking clitic is attached to the (clause-final) verbs. The verbs are realized on the same or a higher pitch level as the preceding constituents (as opposed to the standard verbal clause). In the example below the speaker enumerates four activities which are all part of the set of actions that were carried out. The three linking clitics and the glosses are underlined. The final clause is introduced by the conjunction **pòdò**:

dèéthèé=sí **ʔŋ|úʔŋ|ú-wá-á** **wákháá=sí** **||'òʔó-wá-á-ŋ**
 many=1SG SV.do.RED-PL1-3O firewood=1SG (SV.)collect-PL1-3O-L
 I have done many things: I collected firewood,

ts'áá-nà=sí **hík'í-ŋ** **núwá=sí** **xwànté-ŋ**
 home-DIR=1SG go:SG-L mash=1SG stir-L
 I went home, I cooked mash,

pòdò **tsí** **ʔŋ||ókó-x-sò=ò** **mântshà**
 CNJ2.1PL I POSS.child.PL-COLL-PL=1PL eat
 and then I ate together with my children.

7.2. Coordinating conjunctions based on *nì-*

The conjunction *nì-* forms the basis of two types of conjunctions:

- the coordinating conjunction *nì* as the final conjoining element in enumerations
- the conjunction *nì(-SBJ)-ŋ* which conjoins verbs and clauses.

The coordinating conjunction *nì* is used as a final conjunction in enumerations. The preceding elements in the list are conjoined by the linker *-ŋ*. Examine the following enumeration:

lèébǎ-ŋ k'ats'awǎ-ŋ nì gélé
 Leeba-L K'ats'awa-L and Gele
 Leeba, K'ats'awa, and Nangile.

The coordinating conjunction *nì(-SBJ)-ŋ* conjoins verbs and clauses. The final element is a coordinating linker *-ŋ* (CL). The conjunction may occur with a subject/modality marker, which precedes the linker. The following table demonstrates series of short and long forms of the coordinating conjunction with realis subject markers:

Table 32: Short and long forms of the coordinating conjunctions

	realis CNJ (short)	realis CNJ (long)
1SG	<i>nìsì-ŋ</i>	
2SG	<i>nì-ŋ</i>	<i>nì-ŋg-ì-ŋ</i>
3	<i>nà-ŋ</i>	<i>nì-ŋg-à-ŋ</i>
3fSG	<i>nìsà-ŋ</i>	
1PL	<i>nò-ŋ</i>	<i>nì-ŋg-ò-ŋ</i>
2PL	<i>nè-ŋ</i>	<i>nì-ŋg-è-ŋ</i>
3PL	<i>nà?à-ŋ</i>	<i>nì-ŋg-à?à-ŋ</i>

The coordinating conjunction usually conjoins verbs or clauses with a shared subject.⁷⁸

hàpú 'ŋ!úŋ-kì màŋgàdzà-s-ê nì-ŋ tòmbò-s-ê
 you POSS.mouth-TOP long-BE-3 CNJ-CL curve-BE-3
 Your beak is long and has a curve.

⁷⁸ There is overlap between the use of the coordinating conjunction and the verb linker in multi-verb constructions (see section 7.1).

pàà thâ=yóóó nì-ŋ gélé |'ánkì=à ||àkí nì-ŋ ʔiyé-ŋ màntshà
 CNJ2.3 run:SG=EXCL CNJ-CL baobab up=3 land CNJ-CL stay:SG-VL eat
 He ran!!! And landed on a baobab, and was eating.

In a few examples the coordinating conjunction conjoins clauses that do not share the subject.

ʔèè ʔòò ||òmé-ŋ +'ân, nì=kò-ŋ hìsí mìnìgìsé ŋ||òó
 yes CNJ2.1PL:OPT illuminate-VL VV.see CNJ=2SG:OPT-CL indeed treat child
 Yes, let's shed light on it and see; and you indeed should treat the child.

7.3. The coordinating conjunction **hàà**

The coordinating conjunction **hàà** conjoins nouns, phrases, and clauses. It does not carry a pronominal element. The examples below show conjoined nouns and noun phrases.

xòóxòrì hàà mòndzó hàdísì
 crow and jackal (POSS.)story
 The story of Crow and Jackal

mìsíróó +'ám-ó hàà tshín hón-ó
 beehive POSS.shape.IT-NMN and honey (POSS.)collect_honey-NMN
 The construction of a beehive and the collection of honey.

When clauses are linked by this conjunction, they have different subjects. Generally, the conjunction expresses a contrast:

dàrà=yóóó hàà tû=tshèé
 wait=EXCL and come_out=NEG1.3
 He (Cat) waited a long time, but he (Mouse) did not come out.

pàà káákà hewé-kí-áá |'éé hàà ʔáá ʔiyé=tshèé
 CNJ2.3 dog he-TOP-SFOC (SV.)look_at and good stay:SG=NEG1.3
 And the dog watches too, but it is not right.

Finally, the conjunction is used in combination with the adverb **ʔéʔé** 'later'. The conjunction is used to introduce a new sentence in story-telling (cf. the narrative conjunction in section 7.4 for this function).

hàà ʔéʔé ʔáá tû=tshú !'òròrò -n-sù
 and later good come_out=NEG1.3fSG frog-DEF-f
 And later she does not nicely come out, this frog.

7.4. Narrative conjunctions

Narrative conjunctions carry a pronominal element which is coreferential with the subject. The table below presents the paradigms of two series of narrative coordinating conjunctions (CNJ2): a realis and an optative series. The subject markers have merged with the conjunction (for an overview of pronominal forms, see section 4.4).

Table 33: Realis and optative narrative conjunctions

	realis CNJ2	OPT CNJ2
1SG	sì	?èè
2SG	pì	kòò
3	pàà, kwàà	kwàà
3fSG	sàà	sàà
1PL	pòò, kòò	?òò
2PL	pèè	kwèè
3PL	?àà	kwà?àà, ?àà

The narrative conjunction introduces a new main clause. The subject marker in the conjunction agrees with the clausal subject, which is either identical to the previous subject or introduces a new referent. Sometimes the subject marker in the conjunction provides the only reference to the clausal subject.

ts'úts'ù-ŋg=ì síyé-ŋ pàràré=yóóó pì tété'kw-é
 charcoal-DEF=2SG take:SG-VL draw=EXCL CNJ2.2SG take_out-3O

You take the charcoal and you draw; and then you take it out (i.e. the wood of the opening).

The conjunction is most frequently used in story-telling. It introduces a new utterance (after a pause) and links this to what happened before.

pàà nǎŋ'gwè-ŋg-àà ká?á ?é, híkí ní?ŋ-sùn=ná ||ò-nà
 CNJ2.3 cat-DEF-SFOC that INTJ how? go:PL-1PL:NR=Q over_there-DIR
 And the cat said: "Eh? How shall we get there?"

pàà búrí-ŋg-àà ká?á
 CNJ2.3 mouse-DEF-SFOC that
 And the mouse said: ...

The conjunction can also introduce a main clause after a subordinate clause.

híy-à?à tsùú=?à húk'wà=ì?ŋ ?àà dzàdzàsé-é nì-ŋ ŋ|ìŋì
 SUB:CNJ-3PL animal-3PL kill=SUB CNJ2.3PL roast.FACT-3O CNJ-CL eat_meat
 When they killed an animal, they roasted it and ate meat.

Finally, the narrative conjunction also occurs conjoining two main clauses. As for this use, there is much overlap with the other coordinating conjunctions. Occasionally, two types of conjunctions are combined:

sàà thàkéé-yé nì-ŋ sàà há!à !'òròròm-pò hákw=ì Yiyé
 CNJ2.3fSG put_on_lap-3O CNJ-CL CNJ2.3fSG call frog-2SG where?=2SG stay:SG
 And she holds him on her lap and she calls: “Frog where are you?”

7.5. The subordinating elements **hí-** and **=ìŋ?**

Two elements are used in subordinate clause marking:

- the subordinating conjunction **hí-** (which is not obligatory)
- the obligatory subordinate marker **=ìŋ?**.

The subordinating conjunction introduces the subordinate clause and consists of the element **hí-** and a subject marker that refers to the subject of the subordinate clause. The forms of the subject marker are similar to those in the paradigm of realis subject clitics:

Table 34: Subordinating conjunctions

	SUB:CNJ
1SG	hî-sî
2SG	hî-ì
3	hîy-à, yyâ
3fSG	hî-sà
1PL	hîy-ò
2PL	hîy-è
3PL	hîy-à?à, yyâ?à

The subordinate marker **=ìŋ?** is a clitic which is attached to the final element of the subordinate clause. When the clitic complex is part of the final element, the subordinate marker is attached at the end of the complex, e.g. **|ì=yóóó=ìŋ?**:

tèrèni-n-sù hí-sà hé?é-tshwáá |ì=yóóó=ìŋ? ...
 train-DEF-f SUB:CNJ-3fSG far_away-from.3fSG come:SG=EXCL=SUB
 When the train came from far away, ...

The two subordinating elements mark both temporal and conditional subordinate clauses, as exemplified below:

hîy-à?à tû=ìŋ? pàà ká?á ...
 SUB:CNJ-3PL come_out=SUB CNJ2.3 that
 And when they came out, he (Cat) said: ...

nì-ŋ híy-à !'úmá-nà=à thòó=ìŋ pàà chupa-ŋg-àà ?ǎn-ts'ŋ
 CNJ-CL SUB:CNJ-3 earth-DIR=3 jump=SUB CNJ2.3 bottle-DEF-SFOC (SV.)break-MID2
 And when he jumped down, the bottle broke.

?ǎŋkò fìbèté híy-ò níŋ-ŋ !'òówé=ìŋ sún-kí ...
 come_on quickly SUB:CNJ-1PL go:PL-VL meet.3O=SUB we-TOP
 Come on, if we find him quickly, we as well

hí-ì k'ámé-nì=ì tû=ìŋ k'ámé=kò ||'áá
 SUB:CNJ-2SG beer-DIR=2SG come_out=SUB beer=2SG:OPT follow
 If you go out for beer, go after beer only.

Note that the subordinating conjunction is common, but it may be absent:

!'úmá-nà-kì ||òóxì !'àwé=tshèé=ìŋ mòndzó pàà ...
 land-DIR-TOP yet fall=NEG1.3=SUB jackal CNJ2.3
 It had not yet fallen on the ground, or Jackal...

Generally, the subordinate clause precedes the main clause, but this is not obligatory:

?àà nèé-ŋ 'níŋ=yóóó híy-à ŋ!ê mánéx-àà tshèékì
 CNJ2.3PL stay:PL-VL VV.go:PL=EXCL SUB:CNJ-3 day some-SFOC end
 And they were going, while some days passed.

Chapter 8

Interrogatives

Two types of questions are treated in the following sections: question word questions and yes/no-questions. Question word questions are characterized by a question word and, optionally, the general question marker =ná (see section 5.5 for more information on this clitic). Questions of state have a different structure: they are characterized by a question marker -xè, which is suffixed to the questioned element. The general question marker is obligatory in these questions. Yes/no-questions may be marked morphologically, by the yes/no-question marker =nè (see also section 5.4), or prosodically. The general question marker =ná can also occur in this type of question.

8.1. Question word questions

Question word questions are characterized by the presence of a question word. The following question words are treated in terms:

- hó ‘who?’
- hótò, hóbè ‘what?’
- hótò-mèé, hòsì, hèn ‘why?’
- hákù, há- ‘where?’
- há?àsù ‘when, what time?’
- híkí ‘how?’
- hà- ‘which?’
- hánè- ‘how many?’
- the question marker -xè for questions of state.

Question word questions may be accompanied by the general question marker =ná, a clitic which can be attached to the questioned element, the question word, or at the end of the clause. Note that the clitic is attached after the subject modality clitic and that it is not necessarily part of the clitic complex. For more information see sections 5.5 and 5.7.

mátò-ŋ=ná hákù
gourd-DEF-Q where?
Where is the gourd?

hákù-wà=ì=ná ’ŋiyé-wà
where?=2SG=Q SV.stay:SG-PL2
Where do you live?

mátô-ŋ hákù ŋ||èé-ká-á-pò=ná
 gourd-DEF where? enter-COM-3O-2SG:NR=Q
 The gourd, where will you enter with it?

hó ‘who?’ is used to question humans and to ask for someone’s name.

hàáw=ná hó
 DEM2.m=Q who?
 Who is that one?

hàpú ʔ||wá hó
 you POSS.name who?
 What is your name?

When the question word refers to multiple human beings, the plural suffix **-kó** is added.⁷⁹

hàásò=ná hó-kó
 DEM2.PL-Q who?-PL
 Who are those?

In order to question about a group of persons the collective suffix **-x`** is used. Note that it co-occurs with the plural suffix **-kó**.

wàròŋgèé hó-kó-x`à ŋ|ú-ŋúwá-á
 God who?-PL-COLL=3 create-PL1-3O
 The group consisting of whom did God create?

hó occurs both as subject and non-subject argument. As a subject argument, **hó** hosts the subject focus marker **-aa**.

hó-áá n|òmósò-n-sò ŋ|wéé-ŋŋ
 who?-SFOC people:PL-DEF-PL create-3PL
 Who has created Mankind? (lit. the people)

When **hó** questions the object argument, it can serve as the host for the subject/modality clitic.

wàròŋgèé hó=à ŋ|ú?ŋyá-á
 God who?=3 create-3O
 Whom did God create?

⁷⁹ This suffix further occurs only as a plural marker in **ŋ||ákòsò** ‘certain people’ and **ŋ||ókó** ‘children’ (see section 3.3).

Questions about non-human objects are marked by **hótsò** or **hóbè**, which are used interchangeably. **hótsò** / **hóbè** is used independently, or as modifier which precedes the noun.

hèéw=ná	hótsò	or:	hèéw=ná	hóbè
DEM1.m=Q	what?		DEM1.m=Q	what?
What is this?			What is this?	

When the question word modifies a noun, the question concerns the kind of, or type of that particular object, e.g.:

hótsò nán=a?à thímé-x-’pó
 what? side_dish=3PL cook-BEN-2SG
 What kind of side dish did they cook for you?

Three question words are used to ask for a reason: **hótsò-mèé**, **hòsì**, and **hèn**. All are translated by ‘why?’, the semantic nuances between the three were not investigated. Our impression is that **hótsò-mèé** is a neutral way of asking for a reason, while **hòsì** and **hèn** have a negative connotation.

hótsò-mèé consists of the question word **hótsò** ‘what?’ and the postposition **-mèé** ‘sake’ (cf. **hèwé-mèé** ‘therefore’). **hóbè-mèé** may be used as an alternative, but is rare.

?útè †hótsò-mèé=ì |í-’pó⁸⁰
 yesterday what?-sake=2SG come:SG-NEG:2SG
 Why didn’t you come yesterday?

?àfà hòsì
 Afa why?
 Why, Afa?

hèng=ì bikhé-é
 why?=2SG leave-3O
 Why did you leave it (stop doing)?

hákù and **há-** ‘where?’ are locative question words. **hákù** is an independent question word. It may be extended with the directional postposition **-nà**: **hákù-nà** ‘where to?’.⁸¹

⁸⁰ Question words may be realized at a pitch level which is higher than the pitch level of the adjacent constituents. This is marked by †. For more information see 2.4.4.

⁸¹ **kù** is probably a frozen postposition. It has one other occurrence, where it is in complementary distribution with the directional postposition **-nà**: **ts’áákù** ‘at home’ vs. **ts’áá-nà** ‘(to the) home’. **ts’áá** cannot occur in isolation.

ŋ[ɪ]ŋ-xê-n-ná hákù
 meat-COLL-DEF=Q where?
 Where is the meat?

hákw=à?à nèé
 where?=3PL stay:PL
 Where are they?

hákw-nì=ì hík'ŋ
 where?-DIR=2SG go:SG
 Where do you go?

há- cannot be used independently, it requires an extension with at least a directional postposition: **há-nà** ‘where to’. Another extension is formed by a combination of postpositions: **há-?á-tè-nà** ‘where to? (vague location)’. See also section 3.6.3 on postpositions.

há-nì=ì hík'ŋ
 where?-DIR=2SG go:SG
 Where do you go?

háásò mànàá-sí-sò há-?á-tè-n=ò níŋ
 DEM2.PL know-BE-3PL where?-LOC-area-DIR=1PL go:PL
 Those have knowledge about where we go.

há?ásù is used in questions of time. As times of the day are expressed by reference to the position of the sun (**||'ákásù** (f.)), the question word is analyzed as consisting of the question word **há-** ‘when?’, a locative postposition, and a gender marker **-sù** ‘3fSG’.

há-?á-sù |í-pò
 where?-LOC-3fSG come:SG-2SG:NR
 When/what time will you come?

||'ákásw-àà ʔiyé-ŋ tû-sí |í-sì
 sun-SFOC stay:SG-VL come_out-REL come:SG-1SG:NR
 I will come when the sun is rising.

The sentences below illustrate the use of **híkí** ‘how?’:

híkí !'ámé=sùn-ná
 how? shape.IT=1PL:NR-Q
 How shall we construct (them)?

híkí mánàá=sò-ná

how? know=3PL:NR-Q

How will they know?

hàpú=sì?́=ná híkí=ì |áŋ

you=TOP2=Q how?=2SG see

And you, how do you see (the case)?

hà- ‘which one(s)?’ has four forms that depend on gender and number of the questioned element. The forms consist of the interrogative element **hà**, a marker that codes gender or number, and the definiteness marker. The 3fSG and 3PL definiteness markers contain an additional gender/number marker.

hàwêŋ	‘which one?’ (m.)	hà-wé-`ŋ
hàsúnsù	‘which one?’ (f.)	hà-sú-`nsù
hàsònsò	‘which ones?’ (human plural)	hà-só-`nsò
hàxêŋ	‘which ones?’ (collective or non-human plural)	hà-xé-`ŋ

The forms can be used as independent forms, or as dependent elements that modify a noun. They correspond in this respect to other modifying elements that can be used independently with a definiteness marker. Compare the following examples:

hàwêŋ	or:	hàwêŋ	kitabú
which_one?.m		which_one?.m	book
Which one?		Which book?	

bútí-ì-ŋ	or:	bútí-ì-ŋ	kitabú
red-DEF		red-DEF	book
The red one		The red one of the books	

Questions concerning the quantity of humans and non-humans (animates and things) are marked by **hánè-sò** (PL) and **hánè-xì** (COLL) respectively. The dependent forms follow the noun they qualify.

ŋ|òmósò hánè-sò
 person.PL how_many?-PL
 How many people?

rògò hánè-x=ì ŋ!wáné
 knife how_many?-COLL=2SG ask_for
 How many knives do you want?

hùmbù hánè-xì !é-?éwá-á-pò
 cow how_many?-COLL accompany-PL1-3O-2SG:NR
 How many cows will you bring?

Questions of state are characterized by the question marker **-xè**. The occurrence of these questions is restricted to greetings. They inquire about the current state or condition of the questioned element: a particular time, place, or object. The question marker **-xè** is obligatorily followed by the general question marker **=ná**.

tí'ík'ŋ-xè=ná

morning-QS=Q

How is the morning?

k'ímèntè-xè=ná

afternoon-QS=Q

How is the afternoon?/Good afternoon

dòdómà-xè=ná

Dodoma-QS=Q

How about Dodoma?

yá?ábò-xè=ná

work-QS=Q

How is work?

The standard reply to these questions is **phút'úmà gâ?à** 'There is peace.'

8.2. Yes/no-questions

Most yes/no-questions are characterized by the question marker **=nè** (section 5.4). The clitic belongs to the group of mediative clitics, which are part of the clitic complex (see section 5.7). After the clitic, a subject/modality marker can occur and/or the general question marker **=ná**.

í=nè=?è

come:SG=Y/NQ=1SG:OPT

Should I come?

phút'úmà=nè[=ná]

peace=Y/NQ[=Q]

Is there peace?

Alternatively, a yes/no-question is marked by prosodic means only. Examples of this type are frequently-used utterances in greetings. The typical pitch pattern of the prosodically-marked question is an utterance-final extra high-low contour, regardless of the original final tone of the utterance. The onset of the contour is realized on a higher pitch than any preceding high tone. After the onset, the pitch drops to the normal low pitch. This contour is marked as an upstepped falling tone.

íáá-ʔpô

good-2SG

Are you fine?

In the following examples the same pitch pattern is used in the morphologically-marked yes/no-question too:

phúʔʔ'ú'mâ

peace

There is peace (isn't there)?

phúʔʔ'ú'mâ=nè

peace=Y/NQ

There is peace (isn't there)?

Yes/no-questions ask for a reply from the listener to the speaker's proposition. The response may be just **ʔèèè** 'yes' or **ʔàʔá** 'no', or a more elaborate positive or negative answer.

nì-ŋ káʔá hétʔʔ ɲ||èé-ká-á=nè=è

CNJ-CL that there enter-COM-3O=Y/NQ=2PL

And he asked: "Did you bring him in there?"

sì kì=sì káʔá ||òóxì ɲ||èé-ká-á='tshúŋ

CNJ2.1SG TOP=1SG that yet enter-COM-3O=NEG1.1PL

And I said "We didn't bring him in yet".

Positive replies may be accompanied by the confirmative clitic =**gá**. Note that yes/no-questions that are used in greetings can also be described as rhetorical questions, as a standard, positive answer is expected.

phúʔʔ'úmà=nè

peace=Y/NQ

Is there peace?

ʔèèè, phúʔʔ'úmà=gâʔà

yes peace=CONF1

Yes, there is peace (indeed)

íáá-ʔpô

good-2SG

You are fine, aren't you?

íáá-sì=gâʔà

good-1SG=CONF1

I'm fine.

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Website Helen Eaton: <http://www.drhelenipresume.com> [See “Papers & Conferences” for references and links]

Appendix: Texts

The following is a selection of the oral texts that have been collected during the field research trips:

- 1) “Hare and Civet cat” (animal story; speaker J. Majua⁸²)
- 2) “The construction of a beehive and the collection of honey” (procedural text; speaker J. Majua)
- 3) “The hospital” (dialogue; speakers J. Majua and A. Kanuti)
- 4) Two sayings with explanation (speaker P. Nangile)

For each text the same procedure was followed. First, the consultant was asked to prepare a specific type of oral text. The text was then performed (by heart) during a regular fieldwork session, i.e. without further audience. The performance was recorded on mini disc and audio tape, and, in some cases, on digital video tape as well.⁸³ After the recording, the texts were played back and transcribed, glossed, and translated in Swahili during one or more sessions, together with the consultant(s). Most utterances were checked again and used as input for further fieldwork sessions.

The texts are presented as follows: in each set of three lines, the first line is the transcription in Sandawe. Sandawe transcriptions in square brackets are part of the original recording, but were removed by the consultant at the time of playing back and transcribing the recording. The second line contains an interlinear translation with glosses for each identifiable element. The third line is a near-literal translation in English; parts in brackets are added for clarification. See section 1.4 for further information on the orthography and annotation conventions, glossing conventions and gloss list, and a morpheme list. Additional remarks are presented in footnotes.

As far as possible, one line represents one utterance or clause. If space does not permit to show an utterance on one line, a new, indented paragraph is used for the remainder of the utterance.

⁸² A profile of the consultants is given in section 1.3.

⁸³ The recording equipment consisted of a portable mini disc recorder (Sony MZ-N710), a portable cassette recorder (Sony TCM-400DV), and a uni-directional stereo electret condenser microphone (Sony ECM-717). Additional video recordings were made on Mini DV cassettes using a digital video recorder with an internal microphone.

1. Hare and Civet cat

Hare and Civet cat is a story in which Hare tricks his friend Civet cat over and over again. He strips off his skin, scares Civet cat by running at him naked so that he leaves the meat rack, and eats all the roasted meat. One day, Civet cat finds out, takes away Hare's skin and runs. Hare then dries out in the hot sun and dies.

láá?è hàà nìmà
hare and civet_cat
Hare and Civet cat.

?útáá láá?è hàà nìmà ?àà ?úr=à?à-ŋ màámá-ŋkí
long_ago hare and civet_cat CNJ2.3PL very=3PL-VL⁸⁴ be_friends-REC
Long ago, Hare and Civet cat had a strong friendship.

hèsó 'yá?á?bô-ŋ ?úrì-n=sì?ì !'ín-ó dǵàní-?ìŋ
they POSS.work-DEF very-VL=TOP2 hunt-NMN arrow-INSTR
Their work was mainly hunting with arrows,

màkìbá-?ìŋ tìn-ó |'úmú kù-?ìŋ tìn-ó
stone_trap-INSTR (POSS.)set_trap-NMN waist (POSS.)rope-INSTR (POSS.)set_trap-NMN
setting (bird) traps with stones and setting traps with ropes.

híy-à?à tsùú=?à húk'wà=ì?ì ?àà dzàdzàsé-é nì-ŋ ŋ|ìŋ
SUB:CNJ-3PL animal=3PL kill=SUB CNJ2.3PL roast.FACT-3O CNJ-CL eat_meat
Once they killed an animal, they roasted it and ate meat.

hèsó 'mántshà-ŋ bà?á-s-ê-ŋ hèwé
they POSS.food-DEF big-BE-3-DEF he
This was their main food.

ŋ!ê ts'éxì ?àà tsùú=?à húk'wà-á,
day one CNJ2.3PL animal=3PL kill-3O
One day they killed an animal,

||'é-?éwá-á ?àà dzàdzàsé-é nì-ŋ phàmpàsé-é
skin-PL1-3O CNJ2.3PL roast.FACT-3O CNJ-CL cut_meat_to_pieces.FACT-3O
skinned it, roasted it and cut it in pieces.

⁸⁴ The presence of the verbal linker **-ŋ** on **?úrì** 'very', in combination with a main verb is common. In these cases **?úrì** is interpreted as an operator verb (see section 7.1), which expresses intensity.

nà=?à-ŋ ɲ!átháŋg-é-ŋ ?àànákhà-á
 CNJ=3PL-CL dice-3O-VL (VV.)spread_out-3O
 And they diced it and spread it out (to dry in the sun).

ɲ|ɲ hɲŋé-xê-ŋ ?àà dzàdzàs-ímá-á
 meat other-COLL-DEF CNJ2.3PL roast.FACT-IT.PL1-3O
 They roasted the rest of the meat.

||dòxì ɲ|ɲ láá ||'iné-wà=tshèé=sìŋ kwàà láá?è-ŋ máx-ó=à !'dówé
 not_yet meat well ripen-PL2=NEG1.3=TOP2 CNJ2.3 hare-DEF be_clever-NMN=3 find.3O
 The meat had not yet been roasted well, or the hare got clever,

ɲ|ɲ tshíyà ɲ|j-ŋíwá-á-sàkmèents'=à dzàdzàs-ímá-á-tò-ŋ
 meat all eat_meat-PL1-3O-???⁸⁵=3 roast.FACT-IT.PL1-3O-NMN:PAT-DEF
 he planned to eat all the meat that was roasted.

pàà nìmà-n-ts'=à ká?á
 CNJ2.3 civet_cat-DEF-LOC=3 that
 So he said to the civet cat:

wàré dzàdzàsé=kò ɲíyé-ŋ ɲíswê |í-sì
 friend:m roast.FACT=2SG:OPT stay:SG-VL now come:SG-1SG:NR
 “My friend, go on roasting, I will come back right now”.

kwàà ká?á ?ááreyò wàré
 CNJ2.3 that all_right friend:m
 And he replied: “All right my friend”.

láá?è híy-à hík'=ìŋ nì-ŋ !'wáá-tà=à ɲ||éé
 hare SUB:CNJ-3 go:SG=SUB CNJ-CL pool-in=3 enter
 When Hare left, he arrived at a pool.

?ò-?ò=sìŋ pàà hèwé kèlèmbâ-ŋg=à swáá
 here-LOC=TOP2 CNJ2.3 he (POSS.)skin-DEF=3 strip_off.3O
 Here he stripped off his skin

nì-ŋ ts'á-tà-nà=à ||wáá kwàà mèé 'ɲ|ɲk'è
 CNJ-CL water-in-DIR=3 hide.3O CNJ2.3 NEG:OPT dry_out
 and hid it in the water, so that it would not dry out.

⁸⁵ -sàkmèen is a (deverbal) morpheme complex, which expresses ‘with the intention of’. The exact form and meaning of the individual elements are unclear.

wétsháná=yóóó pàà thâ-ŋŋg=à khwàà

NARR:INTJ=EXCL CNJ2.3 run:SG-INSTR=3 return

Hear! And he returned running,

||ó-ŋò-nà=à dzàdzàsé-wà-ts'è-ŋ ŋŋŋm-tè-nà
 over_there-LOC-DIR=3 roast.FACT-PL2-REL-DEF meat-area-DIR
 over there where the meat was roasted.

híy-à bèéba=sìŋ kwàà nìmà-ŋ |àng-é pàà kwátŋ nì-ŋ thâ
 SUB:CNJ-3 be_near=TOP2 CNJ2.3 civet_cat-DEF see-3O CNJ2.3 be_shocked CNJ-CL run:SG
 When he was near, the civet cat saw him, was shocked, and ran.

Ŷix=à kwèsègà òmè tsùú hàwèŋ-!éŋé
 thus=3 think maybe animal which?.m-???⁸⁶
 He thought like this: “What kind of animal is this, I do not know!”

lááŋè kwàà òbèòbè=à ŋŋŋg=à ŋŋŋ-ŋwá-á
 hare CNJ2.3 hastily=3 meat=3 eat_meat-PL1-3O
 So Hare hastily ate

tshíyà=à dzàdzàsé-wá-á-tò-ŋ
 all=3 roast.FACT-PL1-3O-NMN:PAT-DEF
 all the meat that had been roasted,

nì-ŋ khwàá-ŋ thâ-ŋ
 CNJ-CL return-L run:SG-L
 ran back,

hèwé kèlèmbâ-ŋg=à síyé-ŋ nì-ŋ ŋŋŋé-súkù-ts'í
 he (POSS.)skin-DEF=3 take:SG-L CNJ-CL enter-CAUS2-MID1
 took his skin and put it on.

[pàà káŋá] pàà khwàà hík'ŋ ŋŋŋ kùràŋgí-ŋŋ-tè-nà=à
 CNJ2.3 that CNJ2.3 return go:SG meat (POSS.)rack-LOC-area-DIR=3
 [And he said:] And he went back to the meat rack.

ŋò-ŋò=sìŋ nìmà-ŋ tshèé pàà hàkíts'=à Ŷiyé-ŋ dàrà
 here-LOC=TOP2 civet_cat-DEF not_be:3 CNJ2.3 sit:SG=3 stay:SG-VL wait
 The civet cat was not at this place, so he sat down and waited.

⁸⁶ The exact meaning of !éŋé is unclear. It expresses utter surprise and/or uncertainty.

híyóó pàà nìmà-ŋ khwàà pàà láá?è-ŋg-àà ká?á
 INTJ CNJ2.3 civet_cat-DEF return CNJ2.3 hare-DEF-SFOC that
 Then the civet cat returned and the hare said:

híkí=ná wàré, ŋ|ŋ-xê-n=ná hákù
 how?=Q friend:m meat-COLL-DEF=Q where?
 “What’s up my friend, where is the meat?”

nìmà-ŋ kwàà ká?á
 civet_cat-DEF CNJ2.3 that
 And the civet cat replied:

wà're, hótsò tsùú-áá='lé?é thànì-wà-tshé
 friend:m.ATT what? animal-SFOC=???⁸⁷ run_towards:SG-PL2-APPL.1SG
 “My friend! I do not know what kind of animal came running at me!?”

ŋ|ó-ts'i-thèé, bútt'ŋ sù-ná thâ
 fear-MID1-??? red CNJ2.1SG-???⁸⁸ run:SG
 Something to be feared, red, so I ran.

ŋ|óó=sí
 fear=1SG
 I was scared”.

kwàà láá?è-ŋg-àà ká?á ?á?á hèwé-gè-àà [ká?á]ŋ|j-?íwá-á tsùú-ŋ
 CNJ2.3 hare-DEF-SFOC that INTJ he-MIR-SFOC that (SV.)eat_meat-PL1-3O animal-DEF
 And the hare said: “Ah, it appears this thing has eaten meat, that animal.

mèé=kò ?úrì-ŋ kwátì
 NEG:OPT=2SG:OPT very-VL be_shocked
 Do not be too scared.”

phê-yê-ŋ-kì ?à-xì dzàdzàs-ímá-á
 tomorrow-m-DEF-TOP CNJ2.3PL-again roast.FACT-IT.PL1-3O
 The next day they roasted again.

láá?è kwà-xì kòs=à ká?á
 hare CNJ2.3-again again=3 that
 And Hare said again:

⁸⁷ See footnote 86.

⁸⁸ In oral texts, **-ná** is frequently found after narrative conjunctions. Its presence probably lends extra prominence to what happens next: ‘so then, and then’.

dzàdzàsé=kò ʔiyé-ŋ ʔiswê |í-sì
 roast.FACT=2SG:OPT stay:SG-VL now come:SG-1SG:NR
 “Go on roasting, I will come right now.”

pà-xì kòs=à !'wáá hèwé-nà kòs=à thâ
 CNJ2.3-again again=3 pool he-DIR again=3 run:SG
 And again he ran to that same pool.

kèlèmbá hèwé-ì-ŋg=à swáá nì-ŋ ts'â-tà-nà=à ||wáá
 skin he-POSS-DEF=3 stripp_off.3O CNJ-CL water-in-DIR=3 hide.3O
 He stripped off his skin and hid it in the water.

kwàà kòs=à thâ=yóóó nìmà-ŋg=à ŋ|óó-sú'kw-á
 CNJ2.3 again=3 run:SG=EXCL civet_cat-DEF=3 fear-CAUS2-3O
 Again he ran and frightened the civet cat.

pà-xì nìmà-ŋ thâ
 CNJ2.3-again civet_cat-DEF run:SG
 And again the civet cat ran.

lááʔè kwà-xì ŋ|ŋ tshíyà=à ŋ|j-íwá-á nì-ŋ thâ=yóóó
 hare CNJ2.3-again meat all=3 eat_meat-PL1-3O CNJ-CL run:SG=EXCL
 Hare again ate all the meat and ran!

hèwé kèlèmbâ-ŋg=à ŋ||èé-sú'k-é nì-ŋ khwàà kìràŋgí-ʔí-tè-nà=à
 he (POSS.)skin-DEF=3 enter-CAUS2-3O CNJ-CL return rack-LOC-area-DIR=3
 He put on his skin and returned to the rack,

pàà dàrà nìmà-n-ts'=à
 CNJ2.3 wait civet_cat-DEF-LOC=3
 and waited for the civet cat.

nìmà-ŋ híy-à [...] |í=ʔí pà-xì káʔá
 civet_cat-DEF SUB:CNJ-3 [...] come:SG=SUB CNJ2.3-again that
 When the civet cat came, he said:

kòs=à tsùú-ŋ thànì-wà-tshé sù thâ
 again=3 animal-DEF run_towards:SG-PL2-APPL.1SG CNJ2.1SG run:SG
 “This animal came running at me again, so I ran!”

lááʔè thùʔé=tshéé
 hare reply=NEG1.3
 Hare did not say anything.

ṭeé?é=sì?ṭi pàà nìmà-ṅ kwèsègà n=à-ṅ ká?á
 so_then=TOP2 CNJ2.3 civet_cat-DEF think CNJ=3-CL that
 So then the civet cat thought:

hèéw tsí wàrê-ṅ
 DEM1.m I (POSS.)friend:m-DEF
 “This friend of mine,

híy-à há-?á-tè-nà=ké=à=’lé?é hík’=ì?ṭi
 SUB:CNJ-3 where?-LOC-area-DIR=IND=3=???⁸⁹ go:SG=SUB
 where he goes I do not know,

pà-xì tsùú-áá ’thânì-wà-tshé, hótsò=’lé?é
 CNJ2.3-again animal-SFOC SV.run_towards:SG-PL2-APPL.1SG what?=???⁹⁰
 and the animal that runs at me, what is it?

dó=’kwáá phê híy-à kòs=à ?ix=ì?ṭi dǵò?i-ṅ pèèràà ||’áá-sì
 wait=2SG:HORT tomorrow SUB:CNJ-3 again=3 thus=SUB behind-L beside follow.3O-1SG:NR
 Wait, if he does so again, I will follow him from behind and beside,

nì-ṅ |àng-ê-sì
 CNJ-CL see-3O-1SG:NR
 and I will see him.

há-?á-tè-nà=à hík’-wà
 where?-area-DIR=3 go:SG-PL2
 Where does he usually go?”

?áráá phê-yê-n=sì?ṭi láá?è pà-xì dàà ’hík’
 really tomorrow-m-DEF=TOP2 hare CNJ2.3-again cheat.3O.3 go:SG
 Truly, the next day Hare again went cheating him.

nìmà-ṅ kwàà ||’áá-yé nì-ṅ ||wá-ts’i ?ò-?ò bèébà
 civet_cat-DEF CNJ2.3 follow-3O CNJ-CL hide-MID1 here-LOC near
 The civet cat followed him and hid himself nearby.

láá?è-ṅ kwàà swá-ts’i nì-ṅ hèwé kèlèmbâ-ṅg=à ||wáá ts’â-tà-nà=à
 hare-DEF CNJ2.3 strip_off-MID2 CNJ-CL he (POSS.)skin-DEF=3 hide.3O water-in-DIR=3
 The hare stripped himself and hid his skin in the water.

⁸⁹ See footnote 86.

⁹⁰ See footnote 86.

nìmà-ŋ híy-à hèwé-xé?à |àng-é=ìŋ

civet_cat-DEF SUB:CNJ-3 he-like=3 see-3O=SUB

When the civet cat saw this

pàà †thâ k̀ràŋgí-ŋ-tè-nà=à nì-ŋ ʔiyé-ŋ dàrà dzàdzàsé-ŋ

CNJ2.3 run:SG rack-LOC-area-DIR=3 CNJ-CL stay:SG-VL wait roast.FACT-VL

he ran to the meat rack and sat waiting while he was roasting.

láá?è pàà †thâ ||ò-?ò nìm-àá ʔiyé-ŋ dzàdzàsé-?é-tè-nà=à

hare CNJ2.3 run:SG over_there-LOC civet_cat-SFOC stay:SG-VL roast.FACT-LOC-area-DIR=3

Then Hare ran to the place where Civet Cat was roasting meat.

nìmà-ŋ híy-à láá?è-ŋg=à |àng-é=ìŋ pàà thâ

civet_cat-DEF SUB:CNJ-3 hare-DEF=3 see-3O=SUB CNJ2.3 run:SG

When the civet cat saw the hare he ran.

thâ=yóóó

run:SG=EXCL

And he ran!!

láá?è-ŋ k̀lèmbâ-ŋg=à síyè-ŋ †||wáá tàná-?á-tè=à

hare-DEF (POSS.)skin-DEF=3 take:SG-VL VV.hide.3O elsewhere-LOC-area=3

He took the skin of the hare and hid it somewhere else.

nì-ŋ thâ=yóóó ||ò-?ò k̀ràŋgí-ŋ-tè-nà=à nì-ŋ bèébà=à ||wá-ts'í

CNJ-CL run:SG=EXCL over_there-LOC rack-LOC-area-DIR=3 CNJ-CL near=3 hide-MID1

And he ran to the place of the rack and hid himself close to it.

láá?è pàà k̀òs=à thâ ŋ|í-ŋ ŋ|ínì-sà-nà=à

hare CNJ2.3 again=3 run:SG meat eat_meat-NMN3-DIR=3

Hare then ran again to eat meat.

híy-à ŋ||è=ìŋ nìmà-ŋ tshèé kwàà ká?á |àn-sá=à-ŋ thâ

SUB:CNJ-3 enter=SUB civet_cat-DEF not_be:3 CNJ2.3 that see-1SG=3-VL run:SG

When he arrived, the civet cat was not there, so he said: "He has seen me and ran."

pàà ŋ|ŋ tshíyà=àŋ|í-ŋwá-á nì-ŋ k̀lèmbâ-ŋ síyè-sà-nà=à thâ

CNJ2.3 meat all=3 eat_meat-PL1-3O CNJ-CL skin-DEF take:SG-NMN3-DIR=3 run:SG

So he ate all the meat and ran in order to take the skin.

pàà k'wámá=à kwàà mànà-á

CNJ2.3 miss=3 CNJ2.3 know-3O

But he missed, and he knew

hèwé wàrê-ŋg-àà ||wáá-¹kw-é táná-ŋá-tè=à
 he (POSS.)friend:m-DEF-SFOC hide.3O-BEN-3O elsewhere-LOC-area=3
 that his friend had hidden it from him somewhere else.

nì-ŋ fìbèfìbé=à khwàà-ŋ thâ-ŋ ||ô-ŋò kìràŋgí-ŋí-tè-nà=à
 CNJ-CL hastily=3 return-VL run:SG-VL over_there-LOC rack-LOC-area-DIR=3
 He hastily ran back to the meat rack.

nìmà-ŋ híy-à láá?è-ŋg=à |àng-é=ìŋí bútt¹ŋ ||hwà?é-s-ê pàà thâ
 civet_cat-DEF SUB:CNJ-3 hare-DEF=3 see-3O=SUB red red-BE-3 CNJ2.3 run:SG
 When the civet cat saw the hare, being very red, he ran.

pàà láá?è-ŋ !'áxá n=à-ŋ ká?á
 CNJ2.3 hare-DEF shout CNJ=3-CL that
 And the hare shouted:

tsí=gá=sí=yóóó wàré kòò mèé thâ
 I=CONF=1SG=EXCL friend:m CNJ2.2SG:OPT NEG:OPT run:SG
 "It's me, my friend, do not run!"

nìmà-ŋ thâ-sà=à títèé
 civet_cat-DEF run:SG-NMN3=3 only
 The civet cat was just running.

láá?è pàà k'ée n=à-ŋ ká?á
 hare CNJ2.3 cry CNJ=3-CL that
 Hare cried and said:

mòò-nà=kò khwàà-x-¹sé, !wátáts¹ŋ=sì wàré
 soul-DIR=2SG:OPT return-BEN-1SG do_wrong.MID2=1SG friend:m
 "Forgive me, I have done wrong my friend."

nìmà-ŋ thâ-sà=à títèé
 civet_cat-DEF run:SG-NMN3=3 only
 The civet cat was just running.

láá?è pàà thâ-ŋ nì-ŋ thâ-ŋŋg=à mààmà?àsé
 hare CNJ2.3 run:SG-VL CNJ-CL run:SG-INSTR=3 comfort.FACT
 Hare ran to (try to) comfort him.

kwàà nìmà-ŋ ŋísì-¹kw-é nì-ŋ thâ
 CNJ2.3 civet_cat-DEF refuse-BEN-3O CNJ-CL run:SG
 But the civet cat refused him and ran.

láá?è pàà η|ɪŋk'è k'imé-k-m=à n=à-η tlaási
 hare CNJ2.3 dry_out sunshine-TOP-sake=3 CNJ=3-CL die:SG
 Hare then dried out because of the sun and died.

hàdisi-η-kì ?ô-?à tshèékì
 story-DEF-TOP here-LOC=3 end
 Here ends the story.

2. The construction of a beehive and the collection of honey

The following procedural text describes how to construct a beehive in order to collect honey. The text elaborates on cutting a tree in shape to become a beehive, applying the smelling k'wededa' which attracts bees, putting up the beehive in a tree, and the process of forming honey. The text introduces terminology which is specifically used for beehives, honey, and tools.

The recording of this text also includes a part on the collection of honey from the beehive, e.g. climbing into the tree, using firebrands, etc. As the utterances in that part could not be verified properly with consultants, they are not included here.

mìsikóó *!ám-ó hàà tshín hón-ó
 beehive POSS.shape.IT-NMN and honey (POSS.)collect_honey-NMN
 The construction of a beehive and the collection of honey.

?útáá mìsikóó thèé dōŋ hàà sé ... hàà màpín, màpín='ts'é, !wèéyà
 long_ago beehive (POSS.)tree dong and se... and mapping mapping=NEG2 !weeya
 Long ago, trees for beehives were the “dong”, the “se...”, and the “mapping”, not the “mapping”, the “!weeya”⁹¹.

η!ê-xê-n-tà ?útáá híy-à hèwé-xé-áá tshèékì-wà=ì?ì
 day-COLL-DEF-in long_ago SUB:CNJ-3 he-COLL-SFOC end-PL2=SUB
 Nowadays, when long ago these were all finished,

?iswê η!ê-xê-n-tà ?àlèé, màpín hàà séŋ||á
 now day-COLL-DEF-in cactus mapping and sen||a
 nowadays, it's the cactus, the “mapping” and the “sen||a”.

⁹¹ The Swahili translation equivalents for **dōŋ** and **!wèéyà** are *mkola* and *mninga*, respectively.

híkí !'ámé-sùn=ná

how? shape.IT-1PL:NR=Q

How will we construct (a beehive)?

kóngórà?à bà?átè síyé-pò pù thèé=ì ñ|èé

axe big take:SG-2SG:NR CNJ2.2SG tree=2SG cut

You will take a big axe and then you cut a tree.

hí-ì ñ|èé-ñ !'òókhá=ì?í ?òntè-kì ñ|èé nì-ñ ?òntè-kì ñ|èé

SUB:CNJ-2SG cut-VL finish=SUB over_there-TOP cut CNJ-CL over_there-TOP cut

When you have finished cutting, you cut it over there and over there,

mìsíkóó namna-xè?è

beehive manner⁹²-like

the way like a beehive (i.e. the desired length of the beehive).

hí-ì ?íx=ì ñ|ú?íyá-á-ñ !'òókhá=ì?í

SUB:CNJ-2SG thus=2SG do-3O-VL finish=SUB

When you have finished doing that,

pù kóngórà?à méé=ì síyé

CNJ2.2SG axe big=2SG take:SG

then you take a big axe

hàà thèé méé=ì pù xòxòsé=yóóó

and tree big=2SG CNJ2.2SG hammer.FACT=EXCL

and a big piece of wood and then you start hammering!

thèé-kí kóó-s-è, hèwé-kíñ ká?á kó?à, súnkì?íñ kó?à

tree-TOP be_present:SG-BE-3 he-TOP.ATT that peg our_language peg

There is wood as well (i.e. another piece), as for it, we say a peg, in our language it is “ko’a”.

hàà thèé méé hèwé-?íng=ì xòxòsé, hèwé-?íng=ì dùbé

and tree big it-INSTR=2SG hammer.FACT he-INSTR=2SG bang

together with the big piece of wood, with it, you hammer, with it you bang it.

hí-ì dùbé=ì?í khimbà thèé hèwé fǎn-ts'í=ì

SUB:CNJ-2SG bang=SUB hey! tree he tear-MID2=3:NR

When you bang, hey, this very tree will split!

na híy-à fǎn-ts'í-ñ !'òókhá=ì?í

and⁹³ SUB:CNJ-3 tear-MID2-VL finish=SUB

And when it has split apart,

⁹² Swahili insertion: *namna* ‘manner’.

pì-ná kòsì=ì kóngórà?à bà?átè-ṅg=ì síyé
 CNJ2.2SG-???⁹⁴ again=2SG axe big-DEF=2SG take:SG
 then you take the big axe again.

ʔix=ò bô sún=síʔi kò káʔá |hàré-pò
 thus=1PL say we=TOP2 TOP.1PL that cut_out-2SG:NR
 Thus, we say: “you will cut out”.

|hàré=yóóó pàà !'wàsì ʔòntè-kì nì-ṅ ʔòntè-kì
 cut_out=EXCL CNJ2.3 be_hollow over_there-TOP CNJ-CL over_there-TOP
 Cut out for a long time, and then it is hollow over there and over there (i.e. the two halves).

híy-à !'wá-ṅg-àà tšé=ìʔi pì thóónòʔ=ì síyé
 SUB:CNJ-3 hole-DEF-SFOC be_enough=SUB CNJ2.2SG adze=2SG take:SG
 Once the hollow space is ready, you take an adze.

hèwé thóónòʔòṅ ... hèwé-ʔiṅ màká=wáʔá ʔáá=ì ʔiyé-ṅ ṅ|wéé=yóóó
 he adze.ATT he-INSTR that_is=CND good=2SG stay:SG-VL do=EXCL
 This adze ..., with it, you make it so that it is good (i.e. smooth the rough edges)

pàà hèwé-xé màʔàlé-xé-ṅg=à tshiyà tshèékì-wá=ìʔi
 CNJ2.3 he-COLL a_certain-COLL-DEF=3 all end-PL2=SUB
 And when all these very pieces are gone,

pàà ʔáá !'wàsì
 CNJ2.3 good be_hollow
 it is hollow in a good way.

nì-ṅ híy-à !'wàsì-ṅ !'òókhá=ìʔi,
 CNJ-CL SUB:CNJ-3 be_hollow-VL finish=SUB
 And when it is hollow,

pì-xì-ná tē-ṅ phándò-ṅ hèwé-kì |hàré-yé
 CNJ2.2SG-again-???⁹⁵ other-DEF side-DEF he-TOP cut_out-3O
 you cut out the other side as well.

hèwé-kì-áá !'òókhá-ts'=ìʔi, pì xùpùʔùsé-é
 he-TOP-SFOC finish-MID2=SUB CNJ2.2SG cover.FACT-3O
 When it is finished, you cover it (i.e. put the two halves on each other).

⁹³ Swahili insertion: *na* ‘and’.

⁹⁴ See footnote 88.

⁹⁵ See footnote 88.

pìi **xùpùʔùsé-ŋ** **!ʔòkhá=ìʔi** **mìsíkóó** **ʔŋ!ûŋ**
 CNJ2.2SG cover-VL finish=SUB beehive POSS.mouth
 When you have finished covering, (the next step is) the opening of the beehive.

ts'úts'û-ŋg=ì **síyé-ŋ** **pàràré=yóóó** **pìi** **tété'kw-é**
 charcoal-DEF=2SG take:SG-VL draw=EXCL CNJ2.2SG remove.CAUS1-3O
 You take the charcoal and you draw, then you take it out (i.e. the wood of
 the opening).

hèwé tóónò-ʔiŋ **pìi** **mìsíkóó** **ʔŋ!ûŋ** **pìi-ná** **|hàré=yóóó**
 he adze-INSTR CNJ2.2SG beehive POSS.mouth CNJ2.2SG-???⁹⁶ hammer=EXCL
 With the adze then, you hammer the opening of the beehive.

pàà **hèwé-nà** **lààm-tš'í**
 CNJ2.3 he-DIR be_appropriate-MID1
 And then it is even with it.

ʔòntè **|úkù-yê-ŋ-kì-àà** **hèwé-nà** **lààm-tš'í**
 over_there under-m-DEF-TOP-SFOC he-DIR be_appropriate-MID1
 the lower one over there is even with it.

híy-à **tshíy-àà** **lààm-tš'í-kwâŋkì=ʔi**
 SUB:CNJ-3 all-SFOC be_appropriate-MID1-REC=SUB
 When everything is even with each other,

pìi **xùpùʔùsé-é** **|âng-é** **ʔará=ná** **lààm-tš'í-wà**
 CNJ2.2SG cover.FACT-3O see-3O really=Q be_appropriate-MID1-PL2
 then you put them together and see if they are really even.

híy-à **lààm-tš'í-ŋ** **!òkhá-wá=ìʔi**
 SUB:CNJ-3 be_appropriate-MID1-VL finish-PL2=SUB
 Once they are even,

hèwé **màká=wâʔà** **mìsíkóóŋ** **ʔtš'ems-ó**
 he that_is=CND beehive.ATT POSS.be_ready-NMN
 if that is the case, the beehive is ready.

hí-ì **tš'emsé-ŋ** **!òkhá=ìʔi**
 SUB:CNJ-2SG be_ready-VL finish=SUB
 When you are ready,

ʔó-ʔ-ìŋ **thèé** **hàáw-nà** **kê-'kw-é-pò**
 here-LOC-POSS tree DEM2.m-DIR ascend-CAUS1-3O-2SG:NR
 then you will let it ascend into that tree of this place.

⁹⁶ See footnote 88.

ʔúrì-ŋ sún ʔòntè gélé [na] hàà thèé méʔéwáá bàábà-wà-s-è-ŋ
 very-VL we over_there baobab[and]⁹⁷ and tree big.PL father-PL2-BE-3-DEF
 Here with us, it's mainly baobabs and very large trees (to place the beehives).

hèwé-xé-nà kè-ʔkw-á-pò
 he-COLL-DIR ascend-CAUS1-3O-2SG:NR
 You will let it ascend into them

nì-ŋ tánáá !wáá híkʔi-ŋ |ànŋ-é-pò
 CNJ-CL first opportunity go:SG-VL see-3O-2SG:NR
 and first you will go and see an opportunity.

sún hèwé-xé !wáá-xé-ŋ [kò káʔá] gírítóó
 we he-COLL opportunity-COLL-DEF TOP.1PL that giritoo
 We call these spaces “giritoo”

gírítóó-ŋ hí-ì mìsíkáóó-ì pèé-ìʔi kwà mèé !ʔawé
 giritoo-ATT SUB:CNJ-2SG beehive=2SG put:SG=SUB OPT.3 NEG:OPT fall
 This giritoo, when you place the beehive, it should not fall out,

kwà mèé ŋ|èmésé-kí-áá fíbéténà
 OPT.3 NEG:OPT person.m-TOP-SFOC easily
 and a person should not (take it) easily ...

ʔis-ó ŋ|èmésé-ŋ kwà mèé fíbéténà hòná-ì
 steal-NMN (POSS.)person.m-DEF OPT.3 NEG:OPT easily collect_honey-3:NR
 the thief should not easily collect honey.

hí-ì |ʔé-ì pàà ʔáá ʔiyé-tshèé-ìʔi
 SUB:CNJ-2SG look_at=2SG CNJ2.3 good stay:SG=NEG1.3=SUB
 When you inspect and it doesn't rest well,

pàà hèwé mìsíkáóó-ŋ màká=wáʔá ʔàʔé=wáʔá !ʔawé-ná-ìʔi
 CNJ2.3 he beehive-DEF that_is=CND later_on=CND fall-???=SUB
 that is, if this beehive might fall out,

pì thèé-ì ŋ|èé-ì !ákí-s-è
 CNJ2.2SG tree=2SG cut=2SG fork-BE-3
 you cut a forked stick.

hèwé thèé-ŋ ||wá-ŋ sánŋásì
 he tree-DEF (POSS.)name-DEF sangasi
 The name of this stick is “sangasi”.

⁹⁷ Swahili insertion: *na* ‘and’

p̀̀n̄ f̀̀k̄t̄-s̀̀e-̀̀e, p̀̀n̄ h̄́|á-wá
 CNJ2.2SG get_stuck-FACT-3O CNJ2.2SG tie-PL1

You stick it in with force and you tie together.

h̀̀wè-n-x̀̀e?`è ǃé?é=s̄́t̄ ̀̀n̄s̄́kóó !'àw-ì=ts'é?è
 he-DEF-like later=TOP2 beehive fall-3:NR=NEG2

Like this, the beehive won't fall out later on.

k̀̀n̄ ̀̀m̀̀ngùrà h̄́à h̄́ngè-x̀̀e-n̄ k̀̀n̄-k̀̀ì ǹ̀è-̀̀s-è
 rope.DEF mungura and other-COLL-DEF rope-DEF-TOP be_present:PL-BE-3

The rope (for raising the hive) is (made of) "mungura" (leaves), but there are other (types of) ropes as well.

p̀̀n̄ ̀̀n̄s̄́kóó-n̄ h̄́|á-wá-á ||'à?à-s̀̀e ̀̀n̄-n̄ ts'úk̄há-é-ì-n̄
 CNJ2.2SG beehive-DEF tie-PL1-3O be_blocked-FACT CNJ-CL cover-3O=2SG-VL

You then tie them together, block, and you cover it.

ʒ̀̀x=̀̀ò-n̄ b̀̀ò k̀̀d ká?á s̄́ng ̀̀n̄s̄́kóó 's̄́ambaláá ̀̀n̄s̄́kóó 's̄́ambaláá
 thus=1PL-VL say TOP.1PL that we beehive POSS.cover beehive POSS.cover

Thus we say, "sambalaa" of the beehive, the door of the beehive.

h̀̀wè-k̀̀ì h̄́-ì h̄́ngá=ì? ̀̀n̄ !'àmé=yóóó
 he-TOP SUB:CNJ-2SG wake_up=SUB CNJ2.2SG shape.IT=EXCL

This one, you start shaping it,

ts'òn'tó !h̀̀wè-n̄ l̀̀m̀̀a-s̀̀e-n̄
 small hole-DIR be_appropriate-BE-3-DEF

being appropriate for the small hole (the entrance of the beehive).

p̀̀n̄ l̀̀l̀àá-ì s̄́y-è-n̄ ||'n̄-tà-n̄-ì p̀̀é
 CNJ2.2SG drill=2SG take:SG-VL fire-in-DIR=2SG put:SG

Then you take a drill, put it into the fire and you bore tiny holes

p̀̀n̄ !h̀̀wèé 'n̄||ókó-ì |h̀̀ròm̀̀s̀̀e=yóóó
 CNJ2.2SG hole POSS.child.PL=2SG bore=EXCL

and you bore tiny holes

'èkhá h̄́ng||àk̄-ñ t̄̀t̄-t̄-s̄́-m̀̀éé
 bee enter:PL-VL leave.RED-NMN3-sake

for the bees, in order to enter and leave.

h̀̀wém̀̀ènts'=ò ʒ̀̀x̄ ̀̀n̄|wéé
 that's_why=1PL thus do

That's why we act in this way.

pì **hí|’á-wá-á** **||’à?à-sé-ká-á-ts’ê-ŋ** **mìsíkóó-n-nì=ì**
 CNJ2.2SG tie-PL1-3O be-blocked-FACT-COM-3O-REL-DEF beehive-DEF-DIR=2SG
 You tie together on the beehive, which is blocked with it.

nì-ŋ **t’ésònts’-kì** **ká?á** **mìrìgì** **kóó-s-ê** **k’wédédá?á**
 CNJ-CL furthermore-TOP⁹⁸ that medicine be_present:SG-BE-3 k’wededa’
 And what follows is medicine: “k’wededa’”.

hèwé **k’wédédá?áŋ** **hím-ó-s-ê**
 he k’wededa’.ATT stink-NMN-BE-3
 This k’wededa’ has a smell.

hèw=á?á **híy-à?á** **k’òóthó=ì?ì** **|’èkhâ-n-sò** **hèw=á?á** **k’òóthó=ì?ì**
 he=3PL SUB:CNJ-3PL smell=SUB bee-DEF-PL⁹⁹ he=3PL smell=SUB
 When they smell it, when the bees smell it,

mànà-á-sí-sò **hèsó** **?àà** **||ò-?ò-n=à?á** **ní?ì**
 know-3O-BE-3PL they CNJ2.3PL there-LOC-DIR=3PL go:PL
 they have the knowledge and they go there.

híy-à?á **ní?ì=yóóó=ì?ì** **?àà** **wétshá=yóóó** **?àà** **!’òówé**
 SUB:CNJ-3PL go:PL=EXCL=SUB CNJ2.3PL NAR:INTJ=EXCL CNJ2.3PL find.3O
 When they go, hear!, they find it.

hótsò **!’òówé-sò=ná**
 what? find.3O-3PL:NR=Q
 What will they find?

mìrìgì **!’òówé-sò**
 medicine find.3O-3PL:NR
 They will find medicine.

hàà **?ò-?ò-ŋ** **wétsháná=yóóó** **|’èkhâ** **hèsó** **hàà** **hìsô-n-sò** **fé?é**
 and here-LOC-ATT NAR:INTJ=EXCL bee they and other.PL-DEF-PL later
 And right here, hear!, these bees and others, later on,

⁹⁸ **t’ésònts’-kì** ‘furthermore, what follows’ is a complex form: **t’és-ò-n-ts’-kì** do_again-NMN-DEF-LOC-TOP.

⁹⁹ This is not the transcription of the original recording. When transcribing with the speaker, he changed **|’èkhâxéáá hèwá?á k’òóthó?ì** to **|’èkhânsò hèwá?á k’òóthó?ì**, thus using a definite plural noun instead of a collective noun with a subject focus marker. Although non-human nouns usually have (definite) collective marking instead of (definite) plural marking, the plural noun corresponds better to the 3PL subject/modality clitics which are used here to refer to the bees.

híy-à?à ní?í-sà-má=ì?í ?àà khwàà

SUB:CNJ-3PL go:PL-NMN3-sake.???¹⁰⁰=SUB CNJ2.3PL return

when they have the intention to go (i.e. pass the beehive), they will return.

?ô-?ò !'òówé-sò=gâ?à ?àà η||èé

here-LOC find.3O-3PL:NR=CONF CNJ2.3PL enter

They will find it here, and they go inside.

hèwé mìsíkoó-n-tà-nà η||èé-sò

he beehive-DEF-in-DIR enter-3PL:NR

They will enter into the beehive.

hí|'á-η-kì khòó-tà-nà hí|'á-ts'é='ts'é dzàkhá-tè

cover-DEF-TOP house-in-DIR tie-MID1.3=NEG2 outside-area

The cover should not be tied on the inside, but somewhere outside.

?àà íé?é η||èé

CNJ2.3PL later enter

And later on, they go inside.

híy-à?à η||èé-η !'òókhá=ì?í, ?àà t́íné ?àà t́íné

SUB:CNJ-3PL enter-VL finish=SUB CNJ2.3PL build CNJ2.3PL build

Once they have entered, they build, and build.

kítà?à-n=à?à dèé'téé=?à t́í-?íwá-á

inside-DIR=3PL many=3PL (SV.)build-PL1-3O

They build many things inside.

híy-à?à η||èé-η !'òókhá=ì?í t́íné-sò=gâ?à

SUB:CNJ-3PL enter-VL finish=SUB build-3PL:NR=CONF

Once they have entered, they will build.

hótsò t́íné-sò=ná

what? build-3PL:NR=Q

What will they build?

tshwàá

honey_comb

Honey combs.

tí'ésònts'í-kì tshín phóó

furthermore-TOP honey white

What follows is clear honey.

¹⁰⁰ Cf. footnote 85.

tí'ésònts'ì-kì tùmèé
 furthermore-TOP yellow_honey
 What follows is “tumeé”.

híy-à?à kítà?à-nà kàá-wà-ì?ì dī?á-xê-η-gá-ì?ì,
 SUB:CNJ-3PL inside-DIR put:PL-PL2=SUB egg-COLL-DEF=CONF=SUB
 When they have put them inside, the eggs,

?àà tshíng=à?à kàá-wà-ts'è-é=yóóó kítà?à-nà ?àà ?íí-ìmé-yé
 CNJ2.3PL honey=3PL put:PL-PL2-APPL-3O=EXCL inside-DIR CNJ2.3PL close-IT-3O
 then they add honey inside and close it (i.e. the holes in the honey comb).

híy-à?à ?íí-ìmé-η !'òókhá=ì?ì ?àà dàrà η!ê-n-ts'=à?à
 SUB:CNJ-3PL close-IT-VL finish=SUB CNJ2.3PL wait day-DEF-LOC=3PL
 Once they have closed it, they wait for the day.

híy-à íéé=yóóó [na] η!ê-ηg-àà déé=ì?ì
 SUB:CNJ-3 later=EXCL [and¹⁰¹] day-DEF-SFOC be_many=SUB
 When later on many days have passed,

hón-ó 'η!ê-ηg-àà
 collect_honey-NMN POSS.day-DEF-SFOC
 it's time for collecting honey.

hèèw η|émésê-η mìsíkoó-s-ê-η màná-s-ê
 DEM1.m person.m-DEF beehive-BE-3-DEF know-BE-3
 This person, who has a beehive, has the knowledge:

há?ásù hík'ì-η [nì] hòná-sì
 when? go:SG-VL [CNJ] collect_honey-1SG:NR
 “When shall I go and collect honey?”

nì-η hík'-wǎ-η phàkhé-η |'èé-ì
 CNJ-CL go:SG-PL2-L inspect-L look_at.3:NR
 And he will often go, inspect and have a look at it:

gùmù?ùsé=n=à?à |'èkhâ-n-sò
 stay_outside_beehive=Y/NQ=3PL bee-DEF-PL
 are the bees outside the beehive?

híy-à?à gùmù?ùsé=ì?ì pàà mànáá tshíng !dón-ts'=à
 SUB:CNJ-3PL stay_outside_beehive=SUB CNJ2.3 know.3O honey fill-MID2=3
 When they are outside the beehive, he knows it: it is full of honey.

¹⁰¹ Swahili insertion: *na* ‘and’.

hón-ó ʔŋ!ê-ŋ mànà-á-ì hèwé-kí
 collect_honey-NMN POSS.day.DEF know-3O-3:NR he-TOP
 He himself knows the day of collecting,

nì-ŋ mànà-s-ê ʔiyé-ì hón-ó-kíŋ ŋ!êŋ!ê-wà-s-ê
 CNJ-CL know-BE-3 stay:SG-3:NR collect_honey-NMN-TOP.ATT day.RED-PL2-BE-3
 and he will know, as for collecting honey, it has its period.

híy-à tʔwǎŋg-àà ||'óó=ìʔi káʔǎŋ hòná-wà=tshó-sò
 SUB:CNJ-3 rain-SFOC rain=SUB that.ATT collect_honey-PL2=NEG1-3PL
 When it rains, they say that they usually do not collect.

hón-ó hèsó ʔúr-à-ŋ mànà-á
 collect_honey-NMN (POSS.)they very-3-VL know-3O
 Those collectors know very well

hóbè ŋ!ê=ná hàwé-xê-ŋ ŋ!ê-xê-n-tà nì-ŋ hòná-sò
 what? day=Q which?-COLL-DEF day-COLL-DEF-in CNJ-CL collect_honey-3PL:NR
 what day, on which days (and) they will collect.

3. The hospital

The following text is a dialogue between two consultants, acting as a father and a mother who discuss the illness of their son. Beforehand, only the topic of the dialogue was discussed. The plot was improvised by the two speakers during the recording.

In the dialogue, a father (J) and a mother (A) discuss the swollen leg of their son. They wonder if they should bring him to the hospital or to a diviner in order to have him treated for “ts’ik’a” (a disease which causes swollen legs). Several names of different diviners are mentioned. When they have seen one of the diviners, who advises them to go to the hospital, they finally decide to bring their son to the hospital.

ŋ||ókó ʼŋyó

child.PL POSS.mother

J: Mother of the children!

hó

who?

A: Yes?

||ô híy-ò nèé-ŋ ||'ô=ɪŋi ŋ||ðó-x-'súŋ thwèéŋ
 over_there SUB:CNJ-1PL stay:PL-VL sleep=SUB child-COLL-we night.ATT

J: While we were sleeping there with the child, in the night,

ʔèèè

yes

A: Yes.

hí||'á-sà-ŋ-'kí

be_hot-NMN3-DEF-TOP

J: the body was hot!

k'wàwé=ké=à xàré

be_ill=IND=3 or

A: He is ill, or ...?

kô k'wàw=â

just be_ill=3

J: Yes, he is ill.

mmm

INTJ

A: really?

k'wàw=â=yóóó

be_ill=3=EXCL

J: He is ill!

?áárèyò

all_right

A: All right.

ŋ||òóŋ k'wàwé=gá=à

child.ATT be_ill=CONF=3

J: The child, he is certainly ill!

?èèè

yes

A: Yes.

nì-ŋ swê=sì?í=ná hàpú=sí?í híkí=ì kwèsègà-wà-ts'è-é

CNJ-CL now=TOP2=Q you=TOP2 how?=2SG think-PL2-APPL-3O

J: And now, you, how do you think about it?

mmm, hàpú=sí?í=ná híkí=ì |âŋ

INTJ you=TOP2=Q how?=2SG see

A: Hmm, you, how do you see it?

kô kùsì kà?ăŋ tsí=sí?í=wà?ăŋ

just TOP.1SG that.ATT I=TOP2=CND.ATT

J: Well, if it would be me personally, I would say:

ní=?ò ||úmá bàárà-ŋ,

go:PL=1PL:OPT divine start-VL

A: Let's go and start reading the divining board,

hèwé-xé kóség-ô-ŋ híkí-xé?=ì=ná kwèsègà hàpú

he-COLL think-NMN-DEF how?-like=2SG=Q think you

What do you think of these thoughts?

tsí ?íxì=sì kòsègàăŋ

I thus=1SG think.ATT

J: I think as follows:

?èèè

yes

A: Yes.

sìphìthárì-n=ò?ò xéé
 hospital-DIR=1PL:OPT bring:3O
 J: Let's get him to the hospital.

m̀m̀ m̀m̀, ||úmá-sà-n=ò?ò xéé
 INTJ divine-NMN3-DIR=1PL:OPT bring:3O
 A: Hmm, let's get him to the diviners.

||úmá-†sá=ná
 divine-NMN3=Q
 J: To read the divining board?

?èè ?òò ||òmé-ŋ †|àn, nì=kò-ŋ híisí m̀r̀g̀sé ŋ||òó
 yes CNJ2.1PL:OPT illuminate-VL VV.see CNJ=2SG:OPT-CL indeed treat child
 A: Yes, let's shed light on it and see; and you indeed should treat the child.

hààsò-kì wá?àntè híy-ò ní?=ì?ì
 DEM2.PL-TOP there SUB:CNJ-1PL go:PL=SUB
 J: But those over there (i.e. in the hospital), when we go there,

m̀nà-wà-sísò=gâ?à kò màkàámàkàá
 know-PL2-BE-3PL=CONF just thing RED
 they will just know these things (of going to diviners).

ŋ||òó ||hàtá-ŋ swàkú-wà-?òŋ |àn=nì=ì
 child (POSS.)leg-DEF (POSS.)swell-PL2-INF see=Y/NQ=2SG
 A: Have you seen the swellings of the legs of the child?

kò swàkú hèwé tshíyà
 just swell he all
 J: That is, all have swollen, yes..

ts'ík'á
 ts'ík'a
 A: It's "ts'ík'a" (disease which causes swollen legs).

kò m̀nà-á..., m̀nà-á-sò m̀r̀g̀ì-xê-ŋ-kì m̀nà-wá-á-sò
 just know-3O know-3O-3PL:NR medicine-COLL-DEF-TOP know-PL1-3O-3PL:NR
 J: Just know it.., they will know it, even the treatments they will know.

hèéxwè ŋ!ê-xê-n-tà ?úr=à?à m̀m̀kì m̀nà-á-sò ts'ík'á-yó-?òŋ
 DEM1.COLL day-COLL-DEF-in very=3PL understand know-3O-3PL:NR ts'ík'a-???-INF
 Nowadays they understand a lot, they will know when it is ts'ík'a.

dàá-sòǒŋ

be_able-3PL:NR.ATT

A: And they will be able (to treat it).

dàásò nì-ŋ híy-à?à dàá='tshó=ì?ì

be_able:3PL:NR CNJ-CL SUB:CNJ-3PL be_able=NEG1.3PL=SUB

J: They will be able and if they can't...

ŋ||dò wák'à-á-pò=ts'é hàpú

child kill-3O-2SG:NR=NEG2 you

A: You will not kill the child, will you?

kô mèé=kwàrà ... mèé=kwà ?ixìts'ì

just NEG:OPT=HORT.3 NEG:OPT=OPT.3 thus

J: Just not, let it not be like that.

?èèè

yes

A: Yes

híy-ò ní?=ì?ì bô-x-'sún-sò, híy-à?à hùmà-ts'í-wà=ì?ì,

SUB:CNJ-1PL go:PL=SUB say-BEN-1PL-3PL:NR SUB:CNJ-3PL overcome-MID1-PL2=SUB

J: When we go, they will tell us, and when they have been overcome,

?ákà ká?á sún hùmà-ts'-ó=ì?ì

TOP.3PL that we overcome-MID1-1PL=SUB

when they say “we have been overcome”,

?àká?á khwàà-sé-é=kwè ts'áá-nà

3PL.that return-FACT-3O=OPT.2PL home-DIR

A: they say: “You get him back home”.

khwàà-sé-é=kwè ts'áá-nà

return-FACT-3O=OPT.2PL home-DIR

J: “You get him back home”.

pòò híísí=ò khwàà-sé-é ts'áá-n=ò, ?árèè

CNJ2.1PL indeed=1PL return-FACT-3O home-DIR=1PL right

A: And we return him home indeed, right?

hàp-áá bô-‘ts’é=ì lék’á=wâ?à pòd hèw=ò ||’áá
 you-SFOC say-APPL.3O=2SG indeed¹⁰²=CND CNJ2.1PL he=1PL follow
 J: What you have said is indeed how it is, and we follow that.

swê kî ká?á mdéwà tshèé hó ts’áá-nà ní?î-sùŋ
 now TOP.2SG that Mdewa not_be:3 who? (POSS.)home-DIR go:PL-1PL:NR
 A: Now you said that Mdewa isn’t home, whom will we go to,

kóyòwà=nè xàré ?àsmânì
 Koyowa=Y/NQ or Asmani
 Koyowa? Or Asmani?

?èèè swê dó=‘kwáá
 INTJ now wait=2SG:HORT
 J: Yes, now wait a moment:

au gîŋgíyò gáwà-tà-yê-ŋ ts’áá-nà xéé-sùŋ=nè
 or¹⁰³ Gingiyo mountain-in-m-DEF (POSS.)home-DIR bring-1PL:NR=Y/NQ
 Or will we get him to the house of Gingiyo, the one from the mountain?

?àsmânì hèwé-kí-‘ná hét?î
 Asmani he-TOP-Q over_there
 J: Asmani, really? (He is) over there (far away)!

gîŋgíyò=ná
 Gingiyo=Q
 A: And Gingiyo?

gîŋgíyò hèwé-kí-‘ná hét?î
 Gingiyo he-TOP-Q over_there
 J: Gingiyo, really? (He is) over there (far away)!

kóyówà=?d táánàŋ |àng-é
 Koyowa=1PL:OPT first see-3O
 Let’s first see Koyowa.

?áàrè
 o.k.
 A: O.k.

¹⁰² The exact meaning of **lék’á** ‘indeed’ (?) is unclear. The form probably functions as a verb.

¹⁰³ Swahili insertion: *au* ‘or’.

ʔò bɛ́ɛ̀bà-yé

here be_close-m

J: The one close-by.

ʔèèè

INTJ

A: Yes

kóyowà hɛ́ɛ̀w ɛ́k'á bɛ́ɛ̀bà-yé ɲ

Koyowa DEM1.m indeed¹⁰⁴ be_close-m.ATT

J: This Koyowa, who is close-by indeed,

ʔèèè

INTJ

A: Yes

hèw-òʔò |âŋg-é

he=1PL:OPT see-3O

J: Let's see him.

ʔòò s̀ìph̀h̀tháŋh-nà !émé

CNJ2.1PL:OPT hospital-DIR accompany

A: And let's bring him to the hospital.

h́íy-àʔà ɛ́éʔé káʔá kò tsí-kí h̀ùmà-s-á=ʔí ɲ

SUB:CNJ-3PL later_on that just I-TOP overcome-1SG-3O=SUB.ATT

J: If, later on, they say: "I just lost"

ʔòò s̀ìph̀h̀tháŋh-n=ò níʔí ʔárèè

CNJ2.1PL hospital-DIR=1PL go:PL right

A: Then we go to the hospital, right?

ʔòò wétsháná=yóóó ʔòò s̀ìph̀h̀tháŋh-n=ò níʔí

CNJ2.1PL NAR:INTJ=EXCL CNJ2.1PL hospital-DIR=1PL go:PL

J: Then we, hear, then we go to the hospital.

h́ík'ŋ=kwáá-ŋ khéʔé làbè-ŋ

go:SG=2SG:HORT-VL hear wake_up-VL

A: Be early and go and listen.

kò phê-nà làbè-s̀ì

just tomorrow-DIR(?) wake_up-1SG:NR

J: Tomorrow I will go early.

¹⁰⁴ See footnote 102.

híkâmbò hí-ì hík'áŋ
 how?.3.say¹⁰⁵ SUB:CNJ-2SG go:SG=SUB

¹⁰⁶ A: What did he say when you went there?

kô káŋŋ ŋ||òó hèèw=yóóó ts'ík'á=nè ts'ík'-áá
 just that.ATT child DEM1.m=EXCL ts'ík'a=Y/NQ ts'ík'a-SFOC
 J: They just said: "This child, is it ts'ík'a? It is ts'ík'a."

ʔèèè

yes

A: Yes.

tè-sìŋ káŋá tshèé
 other=TOP2 that not_be:3

J: And that there isn't anything else.

ʔèèè

yes

A: Yes

ts'ík'-áá

ts'ík'a-SFOC

J: Ts'ík'a!

nì-ŋ sìphùtháŋ-nà !ém-ó-ŋ ʔísá=à xàré
 CNJ-CL hospital-DIR accompany-NMN-VL refuse=3 or

A: And did he refuse to bring (him) to the hospital, or...?

ʔàʔá ʔísí=tshèé

no refuse=NEG1.3

J: No, he didn't refuse

ʔèèè

yes

A: Yes

nì-ŋ káŋá hétŋ ŋ||èé-ká-á=nè=è

CNJ-CL that there enter-COM-3O=Y/NQ=2PL

J: And he asked: "Did you bring him there?"

¹⁰⁵ Fused form < **híkí=à ʔâmbò**

¹⁰⁶ At this point, the speakers make a story leap: A has gone to Koyowa and is asked afterwards how things went.

sì kísí ká?á ||òóxì ñ||èé-ká-á=tshúj
 CNJ2.1SG TOP.1SG that not_yet enter-COM-3O=NEG1.1PL
 And I said “We didn’t bring him yet”.

ʔèèè

yes

A: Yes

hèwé-kí mèé=à ñ|òó-sà-xé?=à
 he-TOP NEG:OPT=3¹⁰⁷ fear-NMN3-like=3
 J: For him, he was near to (like) fearing.

kwátá=à

be_alarmed=3

A: He was alarmed.

kwátá=à

be_alarmed=3

J: He was alarmed.

ńńń

INTJ

A: Hmm

ni-ñ táá-x-’sín tánán=kwèrá hèéw ñ||òó-ñ ||ò-ʔò ñ||èé-ká-á
 CNJ-CL friend-COLL-you:PL first=2PL:HORT DEM1.m child-DEF over_there-LOC enter-COM-3O
 J: And (he said:) “You friends, first bring this child over there (to the hospital)”.

ni-ñ híísí khwàà-sé-é

CNJ-CL indeed return-FACT-3O

A: And then indeed return him.

híy-à?á ká?á ||ò-ʔò hóbè=ké hóbè=ké=ì?í
 SUB:CNJ-3PL that over_there-LOC what?=IND what?=IND=SUB
 J: When they say this and that over there,

pàà íáá làmà-ts’i=tshèé=í?í
 CNJ2.3 good be_appropriate-MID1=NEG1.3=SUB
 and when it does not match well (with what the diviner said),

¹⁰⁷ The use of the negative optative marker with a realis subject clitic expresses ‘almost, near to’.

ʔǎǎ

INTJ

A: Aha

ʔék'á=wáʔǎ hèwé=wáʔǎ káʔǎ ʔáwé-ká-á=tshèé
 indeed¹¹⁴=CND he=CND that be_good-COM-3O=NEG1.3
 J: Indeed. If like this, then it will not be good for him?

ʔá, ʔáw-ts'í-ì fàrê-y-sò ts'áákù ŋ||èé=ʔíŋ
 INTJ be_good-MID1-3:NR lie-AG-3PL (POSS.)at_home enter=SUB.ATT
 A: Ah, it will be good. If we go to the liars' place,

ʔèèè

yes

J: Yes

ʔà ʔááw hèwé
 CNJ2.3PL good.m he
 A: this is good.

tsí-kí=ná hèwé=gá-sí kwèsègà
 I-TOP=Q he=CONF=1SG think
 J: As for me, I think so too.

híy-à hèw-áá hùmà-ts'íŋ,
 SUB:CNJ-3 he-SFOC overcome-MID1=SUB
 A: When this has failed,

ʔèèè

yes

J: Yes

hèsó-ts'ènè fàr-ó ŋ|òmósò=ìŋ,
 they-??? lie-NMN (POSS.)person.PL=SUB
 A: since these are liars,

ʔèèè

yes

J: Yes

||úmá-sô-n-sò ʔàmàná híy-àʔǎ hès-áá hùmà-ts'íŋ ...
 divine-PL-DEF-PL maybe SUB:CNJ-3PL they-SFOC overcome-MID1.ATT ...
 A: (these) diviners. Maybe, if they have failed, ...

¹¹⁴ See footnote 102.

ʔèèè

yes

J: Yes

phê lǎbé-ká-á=ʔò

tomorrow wake_up-COM-3O=1PL:OPT

A: Let's be early with him tomorrow.

lǎbé-ká-á pòò níʔ-àŋ ||ò=ʔò ŋ||èé-ká-á

wake_up-COM-3O CNJ2.1PL go:PL-??? there=1PL enter-COM-3O

J: Be early with him and we go and enter with him there.

ʔèèè

yes

A: Yes

maana swê=ò íêʔè n=ò-ŋ hétt'=ò ŋ||èé,

meaning¹¹⁵ now=1PL later CNJ=1PL-CL over_there=1PL enter

J: So this means, later on, we enter there,

hétt'=ò ŋ||èé, hétt'=ò ŋ||èé=íʔi

over_there=1PL enter over_there=1PL enter=SUB

and there, and there.

íáw-ì=ts'é

be_good-3:NR=NEG2

A: This will not be good.

ŋ!ê nèé-ŋ |'útshúkù-wá=ì

day stay:PL-VL pass-PL2¹¹⁶-3:NR

J: Days will be passing.

ŋ||òó k'àʔé-sùŋ

child hurt-1PL:NR

A: We will hurt the child.

ŋ||òó k'àʔé-ts'=â ʔiyé-ŋ

child hurt-MID1=3 stay:SG-VL

J: The child continues suffering.

¹¹⁵ Swahili insertion: *maana* 'meaning'

¹¹⁶ The plural marker has an underlying low tone, but is realized as a high tone before the low-toned non-realis subject marker.

ʔáráá

right

A: That's true.

nì-ŋ ||ò-ʔò-kì híy-ò làbé-ŋ níʔ=íʔì ŋ!ê-ŋg-àà ŋ!é=íʔì
 CNJ-CL over_there-LOC-TOP SUB:CNJ-1PL wake_up-VL go:PL=SUB day-DEF-SFOC dawn=SUB
 J: And if we are early and go there, when the day breaks,

pòò siphìtháfi-nà níʔ=íʔì
 CNJ2.1PL hospital-DIR go:PL=SUB
 and we go to the hospital.

ʔàà ŋ||ŋkwàʔà-sún

CNJ2.3PL reprimand-1PL

A: They will reprimand us.

ŋ||ŋkwàʔà-sún ʔàà káʔá hákw=è nèé=yóóó
 reprimand-1PL CNJ2.3PL that where?=2PL stay:PL=EXCL
 J: Reprimand us and say: “Where did you stay?”

m̀m̀m̀

INTJ

A: Hmm

nì-ŋ ŋ||òó=tàxì |àn-sí-sì-ŋ k'wàwésé pèé
 CNJ-CL child=just see-BE-2PL:NR-DEF ill_person.m put:SG
 J: “And the child you saw, it was ill, but you left it.”

ʔèèè

yes

A: Yes

nóká-á='tshí-sìŋ

bring-3O=NEG1-2PL

J: “You didn't bring it”

hàásò mànà-á-sí-sò há-ʔá-tè-n=ò níʔì-ŋ,
 DEM2.PL know-3O-BE-3PL where?-LOC-area-DIR=1PL go:PL-L

J: Those know where we go,

há-ʔá-tè-n=ò níʔì-ŋ, há-ʔá-tè-n=ò níʔì-ŋ
 where?-LOC-area-DIR=1PL go:PL-L where?-LOC-area-DIR=1PL go:PL-L
 and where we go, and where we go,

ʔaráá=gâʔà

right=CONF

A: True

hèwé tétà mánà-á-sò ŋ||ŋkwàʔà-sún-sò

he genuine know-3O-3PL:NR reprimand-1PL-3PL:NR

J: This they will absolutely know, they will reprimand us.

phê lǎb=ôʔò ʔárè

tomorrow be_early=1PL:OPT o.k.

A: Let's be early tomorrow, shouldn't we?

ʔék'á=wâʔà

indeed ¹¹⁷=CND

J: That's how it is.

ʔèèè

yes

A: Yes

phê ŋ, ʔixìts'í=kwàrà ʔárè

tomorrow.ATT thus=HORT.3 o.k.

J: Tomorrow, let it be so, shouldn't it?

thún'thún

darkness.RED

A: In the dark.

thún'thún

darkness.RED

J: In the dark.

ʔára

right

A: Right

wétshána=yóóó níʔi-ŋ hospitali hèéw |àng-é

NAR:INTJ=EXCL go:PL-VL hospital ¹¹⁸ DEM1.m see-3O

J: Hear, go and see this hospital.

¹¹⁷ See footnote 102.

¹¹⁸ Swahili insertion: *hospitali* 'hospital'.

ʔèèè

yes

A: Yes

bô-x-ʔsún-sò

say-BEN-1PL-3PL:NR

J: They will tell us.

ʔèèè

yes

A: Yes

bô-x-ʔsún-sò

say-BEN-1PL-3PL:NR

J: They will tell us.

híy-à hùmà-kw-á=ʔʔ pòò kóyòwà ts'áá-n=ò khwàà-sé-é

SUB:CNJ-3 overcome-CAUS1-3O=SUB CNJ2.1PL Koyowa (POSS.)home-DIR=1PL return-FACT-3O

A: If he fails, we return him to Koyowa's house.

pòò kóyòwà ts'áá-n=ò níʔʔ

CNJ2.1PL Koyowa (POSS.)home-DIR=1PL go:PL

J: We go to Koyowa's house.

haya

all_right¹¹⁹

A: All right.

ʔixʔts'ʔ=kwàrà ʔárè

thus=HORT.3 right

J: Let it be like this, not?

ʔixʔ=kwà ʔiyé

thus=OPT.3 stay:SG

A: Let it so be.

ʔáárè

right

J: All right.

tsí-kí mèénà-á=sí swê=sìʔʔ

I-TOP love-3O=1SG now=TOP2

A: I agree now.

¹¹⁹ Swahili insertion: *haya* 'all right'.

ʔà, ʔix̩ts̩ʔ=kwà

INTJ thus=OPT.3

J: Ah, let it so be.

m̀m̀m̀

INTJ

A: Hmm

4. Two sayings with explanation

The openings of bags are turned over

Explanation: If you are lucky, do not start glorifying yourself; tide may turn.

b̀g̀d̀l̀ ʔŋ!ũŋ phí!ʔi-wà-s-ê

bag POSS.mouth turn_over-PL-BE-3

The openings of bags are turned over

ʔútè màákhà kúrìyò ŋ|òmósò mséra-tsʔ=àʔà hàwé-ŋ nì-ŋ tsʔ-à-kù
yesterday (POSS.)year Kurio (POSS.)people Mséra-LOC=3PL fetch-VL CNJ-CL drink-CAUS1
Last year, the people of Kurio fetched water and drenched in Mséra.

hèèw màákhà mséra ŋ|òmós-àà kúrìyò-ʔò hàwé-ŋ nì-ŋ tsʔ-à-kù
DEMI.m year Mséra (POSS.)people-SFOC Kurio-LOC fetch-VL CNJ-CL drink-CAUS1
This year, the people of Mséra fetch water and drench in Kurio.

sàndawé ʔix=àʔà ʔáárè-tsʔí káʔá b̀g̀d̀l̀ ʔŋ!ũŋ phí!ʔi-wà-s-ê
Sandawe thus=3PL right-MID1 that bag POSS.mouth turn_over-PL-BE-3
Thus, the Sandawe believe that openings of bags are turned over.

m̀ǹà̀á̀kh̩ŋ bahati k'ómé-s-ê, swê tsí-tè phê hàpú-tè
its_meaning.ATT ¹²⁰luck ¹²¹move-BE-3 now I-area tomorrow you-area
Which means: luck usually moves, today it is on me, tomorrow on you.

hèwé-mèé hí-ì !'dówé-ìʔi mèé=kò hàlé-tsʔí
he-sake SUB:CNJ-2SG get.3O=SUB NEG:OPT=2SG:OPT glorify-MID1
Therefore, if you get it, do not glorify yourself.

¹²⁰ Cf. Swahili *maana yake* 'its meaning'.

¹²¹ Swahili insertion: *bahati* 'luck'.

Death does not have age groups

Explanation: Death is the same for everyone, either young or old.

tlaási mǎríkà-s-ê=ts'é
 death age_group-BE-3=NEG2
 Death does not have age groups.

mànáákhè tlaási bà?é ||'áá=tshéé
 its_meaning death be_big follow=NEG1.3
 It means, death does not follow the (old) ones.

ŋ||dó-kí-wá?à tlaási-ì, k'arèé-kí-wá?à tlaási-ì,
 child-TOP=CND die-3:NR youth-TOP=CND die-3:NR
 Would it be for a child, it may die, for a youth, he may die,

dí?isèé-kí-wá?à tlaási-ì, tí'ábísóó-kí-wá?à !'awí-ì
 elder-TOP=CND die-3:NR stomach-TOP=CND fall-3:NR
 for an elder, he may die; a pregnancy may fail.

hèwé-mèé mèé=kò bô ká?á
 he-sake NEG:OPT=2SG:OPT say that
 Therefore, do not say:

làbá hí-ì hàp-áá tlaás-í?í hàpú màkàá tsí tí'áá-sì
 later SUB:CNJ-2SG you-SFOC die=SUB you (POSS.)wealth I take:PL-1SG:NR
 When you will die, I will take (inherit) your properties.

màná-á-pò=ts'é hó bàárà-ŋ tlaási-?òŋ
 know-3O-2SG:NR=NEG2 who? start-VL die-INF
 You cannot know who will die first.

Samenvatting

The following is a summary of the thesis in Dutch. See section 1.4.1 for an overview in English.

Het proefschrift *A grammar of Sandawe, a Khoisan language of Tanzania* is een beschrijvende grammatica van het Sandawe, gebaseerd op drie periodes van veldonderzoek door de auteur. In de inleiding (hoofdstuk één) wordt kort ingegaan op een aantal kenmerken van de regio *Usandawe*, haar bevolking, en de taal, waaronder de positie van het Sandawe binnen Khoisan. Vervolgens wordt de achtergrond van de huidige studie gepresenteerd door middel van een overzicht van de voornaamste publicaties over het Sandawe en een beschrijving van de vorm en omvang van het onderzoek. Het hoofdstuk besluit met een leeswijzer die uit de volgende onderdelen bestaat: twee tekstfragmenten die de voornaamste kenmerken van het Sandawe demonstreren, met verwijzingen naar de betreffende paragrafen van het proefschrift; een beschrijving van de gebruikte spelling en annotatieconventies; glosconventies en lijsten van gebruikte glossen en morfemen.

Hoofdstuk twee presenteert een beschrijving van de fonologie van het Sandawe. De taal bevat vijf korte en vijf lange orale klinkers en twee stemloze klinkers, **ɨ** en **ʉ**. De fonemische status van de stemloze klinkers blijkt problematisch als de distributie van de klinkers wordt gezien in relatie tot toon. De taal heeft een rijke inventaris aan medeklinkers, waaronder laterale fricatieven en affricaten (**ʃ**, **tʃ** en **dʒ**), drie ejectives (**k'**, **ts'** en **tʃ'**) en vijftien clickklanken, onderverdeeld naar *click type* (dentale |, alveolair !, lateraal ||) en *accompaniment* (stemloos, stemloos geaspireerd, stemloos geglottaliseerd, nasaal, stemhebbend). De voornaamste contrasten tussen de verschillende klanken worden aan de hand van voorbeelden aangetoond. Vervolgens wordt de syllabestructuur van het Sandawe besproken, gevolgd door een analyse van toon. Lexicale toon wordt gekenmerkt door drie tonen: hoog, laag en stijgend. De analyse toont dat de dalende contourtoon ofwel in complementaire distributie is met de lage toon ofwel een samengestelde toon is. Aan de hand van voorbeelden wordt een overzicht getoond van de toonpatronen van één-, twee- en drielettergrepige woorden. De beschrijving van toon gaat verder in op toon op stemloze klinkers, toon op medeklinkers in de coda en toon op grammaticale elementen en clitica. Tot slot wordt een overzicht geboden van (de realisatie van) toon in het fonologische woord en grotere prosodische eenheden, met aandacht voor *downdrift*, *downstep* en *upstep*. *Downstep* wordt gebruikt als markeerder van verschillende syntactische constructies, *upstep* kan worden gebruikt als markeerder van prominentie.

In hoofdstuk drie worden naamwoorden en nominale frasen behandeld. Het hoofdstuk begint met een overzicht van de structuur van het onafgeleide naamwoord. Het Sandawe onderscheidt mannelijk en vrouwelijk geslacht in enkelvoudige naamwoorden, al wordt dit onderscheid in het algemeen slechts overt gemarkeerd in afgeleide en definiëte vormen. Er is geen regelmatige markering van

getal voor naamwoorden. Hierna worden verschillende vormen van nominale derivatie besproken: collectieve naamwoorden, de-verbale naamwoorden, nomina agentis, taalnamen, en naamwoorden voor plaatsen en plaatsnamen. Vervolgens wordt de morfologische markering van definitieid (bepaaldheid) behandeld, die gecombineerd wordt met een verplichte markering van geslacht en getal voor, respectievelijk, vrouwelijke en meervoudige naamwoorden voor mensen. Het hoofdstuk besluit met een beschrijving van nominale frasen, telwoorden, possessiefconstructies en post-positionele frasen.

Hoofdstuk vier bevat een overzicht van het pronominale systeem. Er worden drie groepen in detail beschreven: persoonlijke voornaamwoorden, demonstratieven en de deictische elementen **né-** and **ná-**, die verwijzen naar referenten op een bepaalde locatie. De klinkers **e** en **a** coderen (net als in de demonstratiefstammen **hèé-** en **hàá-**) de parameter afstand, respectievelijk nabij vs. verwijderd. Niet-zelfstandig gebruikte pronomina, zoals verbale objectsuffixen en verschillende typen subjectmarkeringen, worden elders in het proefschrift beschreven. De morfologie van de (zelfstandige en niet-zelfstandige) pronomina in het Sandawe is zeer vergelijkbaar en kan teruggebracht worden tot twee basale paradigma's van persoons-, geslachts- en getalsmarkeringen. Deze worden, met uitzonderingen, beschreven in de laatste paragraaf van het hoofdstuk.

Hoofdstuk vijf behandelt vijf typen clitica van het Sandawe. Een cliticum wordt gedefinieerd als een prosodisch gebonden element dat zich kan hechten aan verschillende woordsoorten, maar geen directe syntactische relatie heeft met het woord waar het zich aan hecht. Sommige in het hoofdstuk besproken markeerders hebben wel een vaste (post-verbale) positie, maar worden toch als clitica behandeld, omdat zij samen met de overige clitica een cliticumcomplex kunnen vormen en, net als de overige clitica, betrekking hebben op de hele zin.

De subject-/modaliteitsmarkeerders vormen het eerste type cliticum. Er zijn vier paradigma's (realis, non-realis, optatief en hortatief), die alle de markering van modaliteit en prominaal subject combineren. De beschrijving gaat zowel in op de morfologie als op de semantiek van de modaliteit. Hierna worden de syntactische kenmerken van dit type clitica behandeld. Met uitzondering van de non-realismarkeerders (met een vaste post-verbale positie) kunnen subject-/modaliteitsmarkeerders aan alle niet-subjectconstituenten gehecht worden. Alleen realismarkeerders kunnen meerdere keren voorkomen per zin.

Er bestaan twee typen markeerders van negatie in de vorm van een cliticum in het Sandawe. Het eerste omvat een paradigma van port-manteau-markeerders die zowel negatie van realis-zinnen als subjectmarkering omvat. Het tweede type is het onveranderlijke cliticum van negatie, **=^tts'é**, dat negatie uitdrukt van non-realiszinnen, speciale werkwoorden en van werkwoordsloze zinnen.

Vervolgens worden de *mediative* clitica behandeld. Dit zijn clitica die epistemische modaliteit uitdrukken. Er wordt aangetoond dat de semantiek van deze elementen ruimer is dan pure evidentialiteit: de markering duidt de houding van de spreker aan

over de informatie in de uiting. De volgende clitica worden onderscheiden in deze groep: de *confirmative* markeerders =gá-/=gâ?à (de spreker is zeker over de gepresenteerde informatie), de *mirative* markeerder =gé(-) (de spreker is verbaasd over de gepresenteerde informatie), en de ja/nee-vraagmarkeerder =nè(-) (de spreker twijfelt over de gepresenteerde informatie en vraagt om bevestiging of ontkenning).

Het cliticum =ná is een algemene vraagmarkeerder. Het kan, naast de ja/nee-vraagmarkeerder of vraagwoorden, aanwezig zijn in vraagzinnen, maar is niet verplicht.

Het vijfde en laatste cliticum dat wordt besproken is het narratieve tussenwerpsel =yóóó. Dit expressieve element wordt veel in verhalen gebruikt om de aandacht van de toehoorders vast te houden. Het element kan onderdeel zijn van het cliticumcomplex, maar kan ook, los van het cliticumcomplex, als finaal cliticum achter het werkwoord geplaatst worden. In dit geval duidt het vaak extra duur of intensiteit van de handeling aan die door het werkwoord wordt uitgedrukt (bv. **dàrà=yóóó** ‘hij wachtte en wachtte!’).

Tot slot van het hoofdstuk wordt het cliticumcomplex beschreven. De volgorde van de elementen in het complex wordt behandeld en de plaats van het complex in de zin. De subject-/modaliteitsmarkeerder speelt in beide een bepalende rol.

Hoofdstuk zes bevat een beschrijving van het werkwoord. Er wordt ingegaan op de algemene structuur van het werkwoord dat bestaat uit een stam en (optioneel) één of meer derivatieve extensies die achter de stam worden geplaatst. Daarna volgen de posities voor meervoudsmarkering, het objectpronomen en de verbale naamvalsmarkering met objectpronomen. Een aantal werkwoorden voldoet niet aan de algemene structuur, zoals de nulstam voor ‘geven; ontvangen’, ‘ergens zijn’ ‘afwezig zijn’ en adjectivische werkwoorden. Deze worden apart besproken in de laatste twee paragrafen van het hoofdstuk.

Er worden zes typen verbale derivatie van de stam behandeld: gereduplicateerde werkwoorden, iteratieve werkwoorden, factitieve werkwoorden, causatieve werkwoorden, mediale werkwoorden en wederkerige (reciproke) werkwoorden. Er wordt uitgebreid ingegaan op de morfologie en semantiek van deze werkwoorden. De factitieve werkwoorden en de twee typen causatieve werkwoorden worden onderling vergeleken om deze ook semantisch te kunnen onderscheiden. Mediale werkwoorden in het Sandawe worden gekenmerkt door de extensies –ts’í (*middle1*) en –ts’ᶓ (*middle2*), die een onregelmatige distributie hebben. In sommige gevallen kan een werkwoord zowel de ene als de andere extensie dragen, waarbij –ts’í een wederkerende (reflexieve) handeling markeert en –ts’ᶓ een gebeurtenis zonder agens dan wel een reflexieve gebeurtenis waarbij het subject geen controle heeft. In veel gevallen komt een werkwoord echter voor met één van beide extensies en blijkt dat reflexieve handelingen altijd door –ts’í worden uitgedrukt, maar dat gebeurtenissen zonder agens zowel door –ts’í als door –ts’ᶓ kunnen worden gemarkeerd.

De paragraaf over objectmarkering behandelt het paradigma van objectpronomina en gaat vervolgens voornamelijk in op de morfologie van markering. In veel gevallen wordt een objectpronomen direct als suffix aan de werkwoordsstam gehecht. In sommige gevallen ondergaat de werkwoordsstam echter wijzigingen, zoals bij reductie van de finale syllabe (*clipping*), infixatie van het pronomen, en klinkerwijziging.

Een belangrijk onderdeel van het werkwoord in het Sandawe is het markeren van getal, in het bijzonder meervoud. Een beperkt aantal werkwoordsstammen is georganiseerd in suppletieve paren, die verplicht optreden als enkelvoudige en meervoudige werkwoorden. Dit betreft zowel intransitieve als transitieve werkwoorden, waarbij in intransitieve werkwoorden het getal van de subjectsparticipanten wordt uitgedrukt, terwijl in transitieve werkwoorden het getal van de objectsparticipanten wordt uitgedrukt. Verder kunnen de verbale meervoudsmarkeringen **-(ʔ)wá** en **-wà** meervoudigheid van, respectievelijk, objectconstituenten en subject-/oblique objectconstituenten uitdrukken.

Naast meervoudigheid van participanten kan meervoudigheid van handeling worden uitgedrukt in het Sandawe. Vaak gebeurt dit in het (afgeleide) werkwoord, zoals gereduplicateerde werkwoorden, iteratieve werkwoorden en wederkerige (reciproke) werkwoorden, maar in sommige gevallen worden hiervoor ook de verbale meervoudsmarkeringen **-(ʔ)wá** en **-wà** gebruikt. De twee vormen van meervoudigheid zijn dus niet duidelijk te onderscheiden, te meer daar nominale getalsmarkering vaak afwezig is.

Een indirect (oblique) object kan, in de vorm van een pronomen, opgenomen worden in het werkwoord. Het pronomen wordt hierbij verplicht voorafgegaan door een zogenaamde verbale naamvalsmarkering. Het Sandawe kent drie van deze markeringen: de benefactief (**-x̣**), de comitatief (**-ká**) en de applicatief (**-ts'è**). De naamvalsmarkering kan nog voorafgegaan worden door **-wà**, dat meervoud van het objectpronomen **-é** (derde persoon object) uitdrukt.

Hoofdstuk zeven gaat in op nevenschikkende en onderschikkende elementen. De linker **-ŋ** is een cliticum en komt in verschillende vormen voor als nevenschikkend element: het kan gebruikt worden als linker tussen werkwoorden waarbij het zowel meerdere hoofdwerkwoorden als een hoofdwerkwoord en hulpwerkwoord kan verbinden. Daarnaast kan het gehecht worden aan het nevenschikkende voegwoord **m̩** en als nevenschikkend element voorkomen in opsommingen. Vervolgens worden drie typen nevenschikkende voegwoorden beschreven: **m̩**, **hàà** en de narratieve voegwoorden met een geïncorporeerd subjectpronomen. Tot slot worden twee onderschikkende elementen beschreven: het onderschikkende voegwoord **hí-** dat een verplicht subjectpronomen heeft en het cliticum **=ŋ̩** dat een ondergeschikte bijzin afsluit.

Hoofdstuk acht beschrijft twee typen vraagzinnen: vraagwoordvragen en ja/nee-vragen. De beschrijving van vraagwoordvragen gaat in op een tiental vraagwoorden. De meeste ja/nee-vragen worden gekenmerkt door het cliticum **=nè(-)** en

(optioneel) de algemene vraagmarkeerder. Voorbeelden (uit begroetingen) laten echter zien dat een ja/nee-vraag ook slechts prosodisch gemarkeerd kan zijn door een *upstepped* hoog-laag tooncontour.

Hierna volgt een referentielijst en een appendix waarin een selectie van vier orale teksten wordt gepresenteerd. De uitwerking van de teksten bevat de transcriptie in het Sandawe, een interlineaire vertaling met glossen en een vrije vertaling in het Engels.

Curriculum vitae

Sander Steeman was born in Roosendaal en Nispen on 31 October 1978. After attending the Norbertuscollege in Roosendaal, he started studying African Linguistics at Leiden University in 1996. He obtained his MA degree in 2002, with an annotated edition of a Lusoga play (MA thesis) and an experimental phonetic study on Swahili question intonation. From 2002 to 2006 he was a PhD-student at Leiden University (CNWS, later LUCL), working on his research project *A grammar of Sandawe*. He joined Learning4u (Portfolio4u b.v.) as a product manager e-learning in 2007, while he continued working on his dissertation. In 2009/2010 he was employed by the Onderwijscentrum Vrije Universiteit in Amsterdam. Since March 2010 he is working as a policy advisor and centraal functioneel beheerder onderwijstoepassingen at the Hogeschool van Amsterdam, afdeling Strategische Informatievoorziening.

