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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.

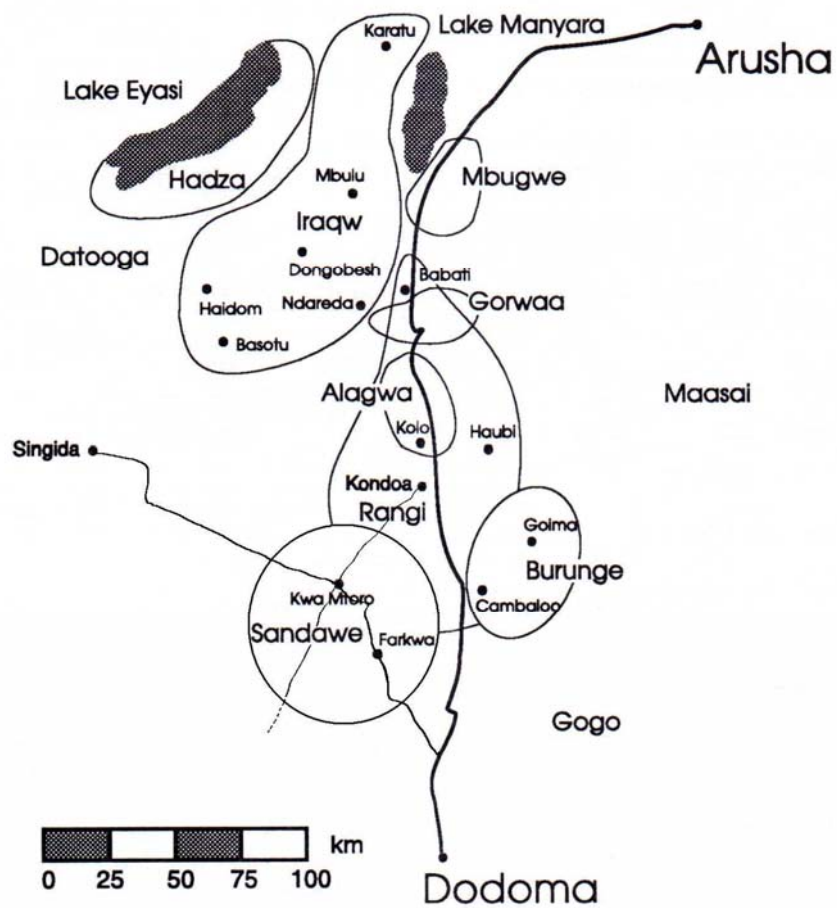
Nowadays, most of the population live in settlements along the main roads, such as Farkwa, Poro Banguma, Kwa Mtoro, Magambua, Ovada, Gungi, Moto, Gumbu, Sanzawa. The size of the settlements ranges from a few hundred up to four thousand people (source: the United Republic of Tanzania 2002 Population and 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 (**sàndawé-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 **||hòntànàsà** ‘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 **ñiyé** ‘stay’.

sàà	hèésù	ñ òò-n-sù	 hôn-tà-nà=sà	sóóxì
18	6	4 1	3 2 1	5 5 7
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	nù-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:

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 $-é$ (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 $-ŋ$ (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 $-ʻŋ$) 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’kwésj̥**. (< **||’ée-súkū-é-sj̥**).

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**, **ʈ**, and **ɖʒ**. Glottalic consonants (ejectives) are characterized by ’: **k’**, **ts’**, and **ʈ’**. 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. **ʔmbô**, **ʔnthó**, **kóngóràʔà**. Before a glottal stop (in polymorphemic words), the realization of the nasal is a nasalized vowel, e.g. **|ʔàwá** (< **|ʔā̃-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. **tsèèngàà**. (< **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)
=íŋ̀	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
-wánkí	REC	Reciprocal (verbal extension)
wétsháná(=yóóó)	NAR:INTJ (=EXCL)	Narrative interjection
-x̀	COLL	Collective marker (nominal suffix)
-x̀, -kẁ	BEN	Benefactive (verbal case marker)
-xè	QS	Question of state
-xê-ŋ	COLL-DEF	Definite collective marker
-ỳ	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
-ʔwánkí	REC	Reciprocal (verbal extension)