

A Sandawe Dialect Survey

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1 Abstract

This paper presents the findings of a dialect survey carried out in the Sandawe language area of Tanzania in June and August 2003. This survey was undertaken in order to determine whether different varieties of Sandawe exist and to obtain relevant information about any such varieties. We hoped that based on this information we could judge the suitability of a trial Sandawe orthography currently in development and establish which variety is the best reference dialect for literature development.

In section 2 below, the background to the SIL International Sandawe project is summarised. Following this, in section 3, the ethnographic context of the Sandawe language, its classification, and the previous research into the language are discussed. In section 4, the purpose and methodology of the current research is explained. The following methods were used to gather information: a language attitudes survey, a wordlist task, and a grammar questionnaire. The results of each of these three components of the survey are then discussed in section 5.

In conclusion, it is stated that the Sandawe language may be divided into two main varieties: western and eastern. The differences between these two dialects are slight and present themselves in pronunciation features, lexis, grammatical phenomena, and differing uses of taboo language. The western variety may be further subdivided into a western and a central variety, but the differences are very slight. The trial Sandawe orthography is judged to be suitable for all varieties of Sandawe. The western dialect is spoken by more people and is the more prestigious of the two main dialects. It was therefore decided to use this dialect as a reference dialect for written Sandawe.

2 Introduction

In April 1991, Brady and Betty Anderson of the Summer Institute of Linguistics undertook a survey of the Sandawe language community at the invitation of a bishop of the Africa Inland Church of Tanzania. The need for a literature development project among the Sandawe people was recognised, and in 1996 such a project was begun by Daniel and Elisabeth Hunziker of the Summer Institute of Linguistics, in cooperation with the Anglican Church (Diocese of Central Tanganyika). After a period of initial linguistic analysis, an orthography for the Sandawe language was developed.¹ This suggested orthography was accepted by a committee of Sandawe speakers at meetings in Kwa Mtoro in November 2002. The orthography has since been tested in literacy classes and by means of calendars containing written Sandawe which have been disseminated throughout the Sandawe-speaking area.

The orthography meeting brought together Sandawe speakers from all over the Sandawe-speaking area. Discussions at this meeting, together with informal conversations with other Sandawe speakers, revealed that there are differences in how Sandawe is spoken in the different parts of the language area. Consequently, in June and August of 2003, a dialect survey of Sandawe was undertaken by Daniel and Elisabeth Hunziker and Helen Eaton. Seven villages were visited as part of the research. These are highlighted in purple on the map below.

¹See appendix A for a chart showing the phoneme and grapheme correspondences in the proposed Sandawe orthography.

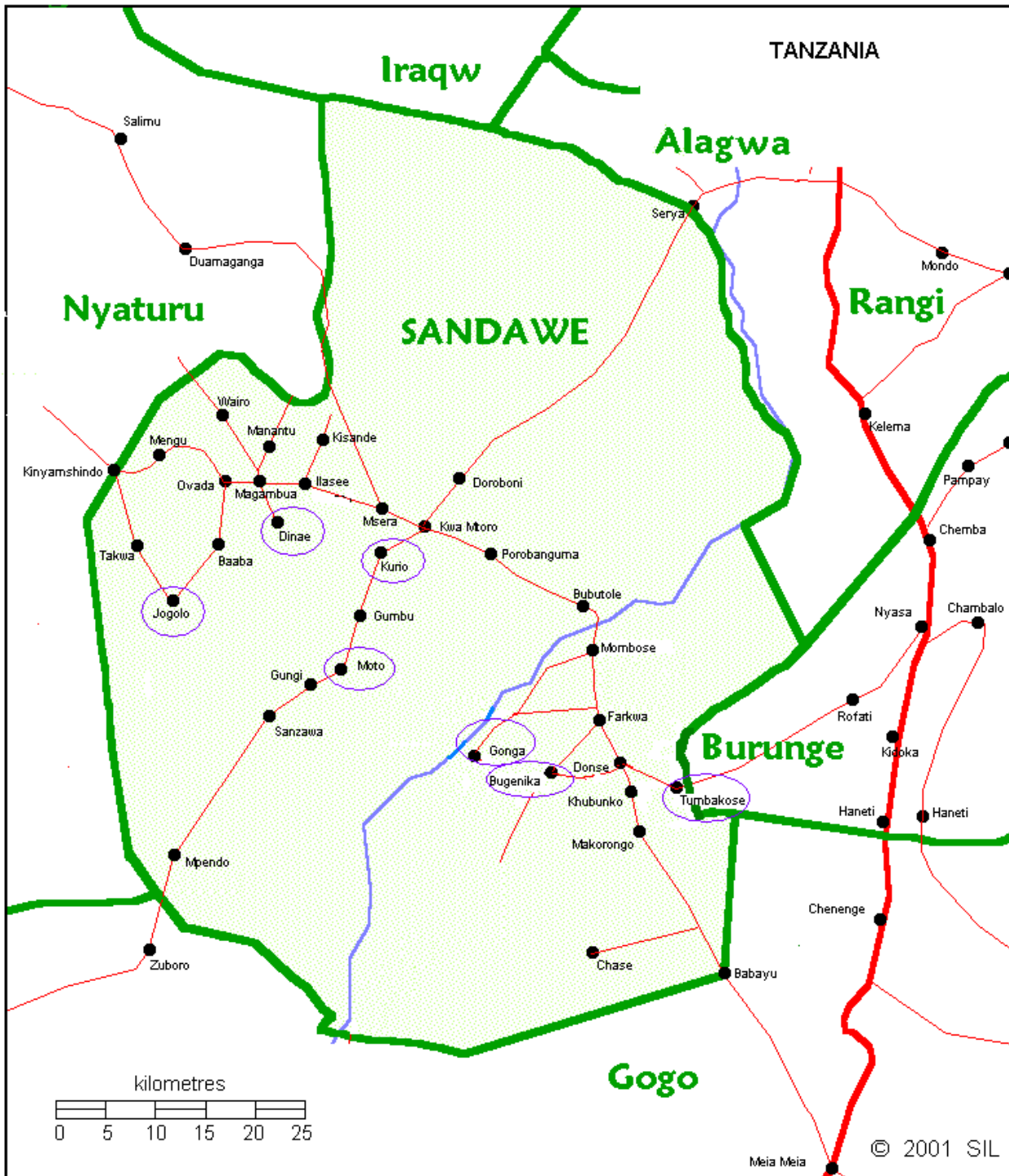


Fig. 1. Map of the Sandawe language area showing seven villages chosen for dialect survey.

Taking the village of Kwa Mtoro as the geographical centre of the Sandawe-speaking area, there are three main groups of Sandawe villages, which cluster along three of the four roads leading out of Kwa Mtoro. Before undertaking the dialect survey, our expectation of the dialect situation in the Sandawe

language area, based on informal impressions, was that these three groups of villages might correspond to three varieties of Sandawe. We therefore chose to visit at least two villages from each of these three groups during the survey. The villages of Jogolo and Dina'e represent the western group, Moto and Kurio the central group, and Gongga, Bugenika, and Tumbakose the eastern group.²

3 Background to the Sandawe language

3.1 *Ethnographic context*

Sandawe is spoken in the Kondoa district of central Tanzania by approximately 40,000 people. The area inhabited by the Sandawe is about 50 km in diameter from north to south and from east to west. It is bordered by the Nyaturu, Iraqw, Alagwa, Rangi, Burunge, and Gogo language areas. The Sandawe interact with the other ethnic groups living among them, but conversation is usually carried out in Swahili. Sandawe is not normally spoken by non-Sandawe, although some non-Sandawe report being able to understand the language.

3.2 *Classification*

Greenberg (1955:80) proposed that Sandawe be classified as a member of the Khoisan language phylum. With the exception of Hadza, which is spoken in northern Tanzania, other Khoisan languages are spoken in southern Africa, some 3,000 miles away from Sandawe. Some doubts as to the validity of Sandawe's Khoisan classification have been expressed by, for example, Westphal (1971:401). However, recent research has supported Greenberg's position. Elderkin (1982, 1986, 1989), who has worked extensively on Sandawe, claims that Sandawe's Khoisan affiliation "cannot be challenged" (1982:79). In a dissertation on linguistic relationships, Sands (1995:193–194) concludes that "it seems a little more likely than not that the Northern, Southern, Central Khoisan groups along with Sandawe are related."

3.3 *Previous research*

Previous research on Sandawe has largely focused on phonological issues. Tucker et al. (1977) investigated the places of articulation of Sandawe clicks, and Wright et al. (1995) explored the nature of click accompaniments in the language. Predictable nasality before clicks in Sandawe was studied by Elderkin (1992). Further works by Elderkin (1986, 1989, 1991, 1992) have dealt with the use of tone and pitch in Sandawe and the interaction of syntax, tone, and information structure.

An early example of Sandawe grammatical description is found in Dempwolff (1916), together with an ethnographic study of the Sandawe people. Van de Kimmenade (1936) also produced a grammar of Sandawe. More recently, Dalgish (1979) claimed to have observed a system of *subject identification* strategies in Sandawe, which involved word order and subject marking morphemes. However, Kagaya (1990, 1994) concluded that the patterns observed by Dalgish were instead influenced by information structure. Following the work of Kagaya, Eaton (2001, 2002, 2003) explored the relationship between focus and its realization in different sentence types in Sandawe. She concluded that constituent order, subject marking, and tone all have information structure marking functions in Sandawe. Their use in various sentence types appears to be very different on the surface, but this hides a fundamental similarity.

²The labels *western*, *central*, and *eastern* are convenient terms for referring to the three clusters of villages, but it should be noted that they are not completely geographically accurate. Sanzawa, for example, is categorised as belonging to the central group, although it lies further west than some of the villages in the western group.

The question of whether there are different dialects within the Sandawe language is one which has largely been ignored in previous research. Westphal (1956:158) reported that, “it is not known whether the language is uniform or whether there are dialectal divisions.” One notable exception to the lack of dialectal research is ten Raa’s (1970) paper, “The Couth and the Uncouth: Ethnic, Social, and Linguistic Divisions among the Sandawe of Central Tanzania.”

Ten Raa concludes that the area inhabited by the Sandawe can be divided into “two distinct areas, a distinction which the Sandawe themselves recognize even though at the same time they maintain that all Sandawe are one people, forming a single tribe” (1970:128). This distinction is made on the basis of ethnic, social, and linguistic differences. According to ten Raa, “the Sandawe of the centre and the west consider themselves to be the couth, and those of the south-east and the outlying districts to be the uncouth” (1970:128). The “couth” Sandawe refer to themselves as *Dtelha*,³ which means “proper” and the “uncouth” are known as the *Bisa*, a term which originally referred to just one sub-tribe of the Sandawe (1970:131).

With respect to the varieties of Sandawe spoken by the Dtelha and the Bisa, ten Raa claims that there are “slight and gradual differences” (1970:147) and no problems with mutual intelligibility. Ten Raa (1970:147–151) notes three main features which distinguish the two varieties. First, the Bisa speak more slowly than the Dtelha. A second distinguishing feature, which is related to the first, is that the Bisa retain vowels which the Dtelha drop. And thirdly, the two dialects exhibit some lexical differences. Some of these differences stem from the fact that the two groups have borrowed lexical items from different languages. The Dtelha people have intermarried with the neighbouring Nyaturu and Alagwa, and their dialect contains some borrowings from the Nyaturu and Alagwa languages. In contrast, the Bisa dialect is mainly influenced by the Gogo and Burunge who live to the south of the Sandawe. Other lexical differences between the Dtelha and the Bisa concern the appropriate way to refer to taboo matters such as sex, pregnancy, and childbirth. The Dtelha tend to use euphemisms whereas the Bisa are more blunt.

4 Purpose and methodology

4.1 Purpose

The purpose of this research is to determine whether different varieties of Sandawe exist and to obtain relevant information about any such varieties. We hope that based on this information, we can judge the suitability of the trial Sandawe orthography and establish which variety is the best reference dialect for literature development.

³Ten Raa spells the term *Téhla*. Here the term is spelled using the proposed Sandawe orthography. It is pronounced as [tétâ]. Surface tone is transcribed in this paper according to the following conventions:

á	high tone
ā	mid tone
à	low tone
â	high falling tone
ã	mid falling tone
ä	low falling tone
ǎ	rising tone

For an analysis of Sandawe tone which discusses the relationship between underlying tones and surface tones, see Hunziker, Hunziker, and Eaton (2005).

4.2 Goals

- To determine the dialects of Sandawe and the differences between them.
- To determine the suitability of the trial orthography.
- To determine the best reference dialect for literature development.

4.3 Research questions

- What are the varieties of Sandawe?
- Where are the varieties of Sandawe located?
- What attitudes are held by Sandawe towards speakers of other varieties of their language?
- What are the perceived differences between the varieties of Sandawe?
- What are the actual differences between the varieties of Sandawe?
- To what extent is the trial Sandawe orthography suitable for all speakers of Sandawe?
- What is the best reference dialect for written material in Sandawe?

4.4 Methodology

The following methods were used to gather information in: a language attitudes survey, a wordlist task, and a grammar questionnaire. The language attitudes survey and wordlist were adapted from those used by the SIL Tanzania Language Assessment Team, which were developed with reference to Bergman (1989).⁴ The grammar questionnaire was created by Eaton, Hunziker, and Hunziker.

4.4.1 Language attitudes survey

The set of questions used in the language attitudes survey is given in appendix B. This survey was intended to discover how the Sandawe themselves view the way their language is spoken in different geographical areas. The interviewees were asked to compare how they speak Sandawe with the way it is spoken in other villages (question 7). For each village named in the survey, the interviewees judged whether the Sandawe spoken there was the same as their own or different. If they considered it to be different, they were asked whether the differences were large or small, and whether these differences concerned pronunciation or choice of lexical items. The interviewees were then asked to provide examples of these differences. They were also asked whether it is possible to tell where a Sandawe is from by the way he or she speaks Sandawe (question 10). In addition, the survey contains questions on borrowing (questions 12 and 13), lexical meaning differences (question 14) and taboos (question 15) in the different parts of the Sandawe-speaking area.

The questions described above were designed to discover the perceived differences in how Sandawe is spoken in different geographical areas. The remaining questions in the survey were concerned with attitudes to different varieties of Sandawe and their speakers. The interviewees were asked where they felt the “best Sandawe” is spoken (questions 1, 2, and 3) and where the “worst Sandawe” is spoken (question 9). They were also asked to state any preferences they had for which version of Sandawe should be used in writing (questions 8 and 11). Questions concerning attitudes to Swahili (question 4) and the vitality of Sandawe (questions 5 and 6) were also included.

We asked the chairman of each of the seven chosen villages to gather together a group of about twenty local men and women of different ages for the language attitudes survey. The survey was then conducted with the group as a whole. The members of the group were encouraged to give additional

⁴We would like to record our thanks to Louise Nagler, Heidi Anderson, and Susanne Krüger of the SIL Tanzania Language Assessment Team for their help in preparing the survey materials. Particular thanks go to Susanne Krüger and also to Ted Bergman for their comments on earlier drafts of this report. We would also like to thank the village leaders in the surveyed villages and all those who participated in the survey for their time and assistance.

answers to the questions if they disagreed with those already given. All suggested answers were then written down by the interviewer. In the main, Swahili was used during the interviews, but the interviewees were encouraged to discuss the questions in Sandawe if they wished to, and anyone who did not feel comfortable giving an answer in Swahili was free to do so in Sandawe.

4.4.2 Wordlist task

The wordlist used in the survey is found in appendix C, together with a sample set of answers. The wordlist consists of 246 lexical items and contains a mixture of grammatical categories, including nouns, verbs, adjectives, and adverbs. The wordlist was elicited in Sandawe by means of translation from Swahili. In each village, we asked for two people under the age of 50, one man and one woman, to take part in the wordlist task. The volunteers were interviewed separately and their responses were transcribed. During the interview, the responses were compared with those which had been recorded during our ongoing linguistic work in Magambua, a village in the western part of the Sandawe-speaking area. Where the interviewees' responses differed from those we had previously noted, they were recorded on audio tape to facilitate further analysis at a later date.

4.4.3 Grammar questionnaire

The grammar questionnaire can be found in appendix D, together with a set of answers from one interviewee. This questionnaire was designed to elicit a range of grammatical structures in Sandawe, such as declaratives, interrogatives, and imperatives. These structures were elicited by means of the translation of Swahili sentences. In eight of the twenty-four items, a context question in Swahili was presented to the interviewee together with the sentence to be translated in order to create a specific discourse context and encourage the elicitation of a particular structure.

In each of the villages surveyed, we asked for two men and two women under the age of 50 to take part in the grammar questionnaire. The volunteers were interviewed separately, and their responses were transcribed by the interviewer and also recorded on audio tape. If the interviewee made a mistake in translating from Swahili to Sandawe, which was evident at the time, the interviewer pointed this out and gave the interviewee the chance to correct the mistake. However, if the interviewee was unwilling or unable to change their response, the matter was not pursued and the original response was recorded. In these cases, the interviewee was also asked for a back translation into Swahili, and in many instances, this confirmed that the Sandawe did not conform exactly to the Swahili originally given.

Only three of the four sets of responses to the grammar questionnaire for each surveyed village are included in the comparison discussed below in section 5.3. The excluded sets of responses were those that came from the interviewee who had struggled the most to complete the translation task, either because of unfamiliarity with the type of task or because of Swahili comprehension difficulties. This was done in order to facilitate the comparison of like with like. In the western village of Dina'e, the excluded set of responses came from an interviewee who had grown up in the central area of the Sandawe-speaking area. His data was excluded from the comparison because of the possibility that it was not representative of the village being surveyed.

5 Results

The results of the language attitudes survey, wordlist task, and grammar questionnaire will now be considered in turn.

5.1 *Language attitudes among the Sandawe people*

A record of the responses given during the language attitudes surveys can be found in appendix E. In this section, the main findings will be highlighted. Section 5.1.1 considers the dialectal differences in Sandawe, as perceived by the interviewees. Section 5.1.2 deals with those survey questions relating to attitudes to the different varieties of Sandawe which the interviewees identified.

5.1.1 Dialectal differences in Sandawe

In question 7 of the language attitudes survey, the interviewees were asked whether the Sandawe spoken in a list of villages was the same as the Sandawe spoken in their own village. In Tumbakose, one of the three eastern villages surveyed, the interview at this point became dominated by one man who gave all the answers, despite not always seeming that well-informed. As can be seen by looking at the table showing the results for question 7 (Appendix E), the answers from Tumbakose differ greatly from those given in Gongga and Bugenika, two nearby villages. The results from the Tumbakose survey have therefore been ignored with respect to this question.

For the purposes of analysing the results, the villages have been grouped into the three regions (western, central, and southern) identified in section 2.⁵ This allows us to see how the surveyed villages view the Sandawe spoken in other villages in their own region and contrast these findings with how they view the Sandawe spoken in villages in the other regions.

The interviewees in Jogolo and Dina'e show very close agreement in their opinions on the Sandawe spoken in other villages. They considered that the Sandawe in all the other villages in their region, the western region, was exactly the same as their own. The Sandawe spoken in the central region was judged on the whole to be slightly different from their own, whereas that spoken in the eastern region was considered to be very different. According to the responses given in Jogolo and Dina'e, the three geographical divisions also reflect dialectal divisions.

In contrast to Jogolo and Dina'e, the results from Moto and Kurio, the two villages representing the central region, differ greatly from each other. For Moto, the Sandawe in twenty-three of the thirty-two other villages was judged to be very different from the Sandawe spoken in Moto. For Kurio, the Sandawe in twenty-two of the thirty-two other villages was judged to be exactly the same as the Sandawe spoken in Kurio and no village was classed as "very different." Despite this, and with one exception, the two surveyed villages agreed that the Sandawe spoken in the other villages in their region is exactly the same as their own. They also agreed that all the villages in the east speak Sandawe that is different from their own.

The representatives from the eastern region, Gongga and Bugenika, did not consider Sandawe spoken within their own region to be the same in every instance. The results from both villages split the eastern region into three clusters, which can be described as northern, central, and southern. The boundaries of these regions differ only slightly based on the data from the two villages, with Gongga putting Mombose in the central cluster and Bugenika in the southern cluster, while Bugenika places Mombose in the northern cluster and itself in the central cluster. The differences between the Sandawe spoken in these

⁵The villages of Kwa Mtoro and Doroboni are located at the borders of the three regions (see map in figure 1). They are considered by the Sandawe of the central and eastern regions to belong to the western region and have therefore been categorised in this way here. The villages of Mpendo and Serya are located at the outermost edges of the Sandawe language area and are not close to other Sandawe villages. They have therefore been categorised as outliers for the purposes of the survey.

clusters within the eastern region were described as either “very slightly different” or “slightly different.”

Gonga and Bugenika classified the Sandawe spoken in the villages in the western region as either “different” or “very different,” with the exception of Kwa Mtoro and Doroboni, the two villages located furthest east in this region. The Sandawe in these two villages was judged to be “slightly different.” With one exception, the Sandawe spoken in the villages in the central region was also classified as “slightly different.”

In summary, these results from the surveyed villages suggest that there are three distinct varieties of Sandawe, which are located in three geographical areas: western, central, and eastern. On the whole, the western region viewed the variety of its neighbouring region, the central region, as being more similar to its own than that of the eastern region. Similarly, the eastern region judged the variety spoken in the neighbouring central region as more similar to its own than that of the non-contiguous western region. This suggests that the three varieties of Sandawe form a continuum.

Some of the results indicate that the differences at the eastern end of the continuum are sharper than those at the western end. Firstly, the central region, which borders both the other regions, did not view the Sandawe spoken in the other two regions as equally different. The eastern variety was deemed more different than the western variety. Secondly, the eastern region considers its own variety of Sandawe to consist of three sub-varieties, whereas the other two regions viewed their own Sandawe as uniform.

When asked how the varieties of Sandawe differ, the most common response in all of the surveyed villages was that the varieties differed in pronunciation. The same pronunciation feature was mentioned in all cases. That is, in some varieties of Sandawe the pronunciation of the language is “drawn out” and in other varieties it is “clipped.” Table 1 summarises the comments made with respect to this pronunciation feature.

<i>Surveyed village (region)</i>	<i>Villages (regions) mentioned with drawn out speech</i>	<i>Villages (regions) mentioned with clipped speech</i>
Dina'e (W)	Gonga (E)	-
Moto (C)	Gonga (E), Porobanguma(E)	-
Kurio (C)	Porobanguma (E)	-
Gonga (E)	Khubunko (E), Makorongo (E), Chase (E), Babayu (E), Bugenika (E)	-
Bugenika (E)	Khubunko (E), Makorongo (E), Babayu (E)	Kwa Mtoro, Kisande, Lahoda, Magambua, Manantu, Wairo, Ovada, Mengu, Kinyamshindo, Takwa, Jogolo, Baaba, Dina'e (all W), Kurio (C), Porobanguma (E), Bubutole (E), Mombose (E)
Tumbakose (E)	Mpendo (Outlier), Makorongo (E), Chase (E), Babayu (E)	Doroboni (W)

Table 1. Drawn out versus clipped speech

Table 1 shows clearly how drawn out speech is considered to be a feature of the variety of the eastern region. The results from the surveyed villages in that region are particularly interesting. None of the

three villages cites its own variety of Sandawe as featuring drawn out speech, but instead mentions villages from further east in its own region. Interestingly, Gongga and Bugenika are both given by other villages in the survey as examples of varieties with drawn out speech, but these two villages themselves did not consider their own speech to be drawn out. Despite this, Bugenika names three villages from the eastern region as having clipped speech, in contrast with its own style of speech. These three villages are located in the western part of the eastern region.

The interviewees in Gongga mentioned examples of two further pronunciation differences. They reported that the word for ‘sand’ is pronounced as /msaŋga/ in Gongga, but as /masaŋga/ in the Magambua area, and the word for ‘milk’ is /zik’e/ in Gongga, but /dʒik’e/ in Kurio.

As well as giving examples of how pronunciation differed across the Sandawe-speaking area, the interviewees gave examples of some lexical differences, as shown in table 2.

<i>Surveyed village (region)</i>	<i>Sandawe^a</i>	<i>Village (region) where alternative form is used^b</i>	<i>Sandawe</i>	<i>English gloss</i>
Dina’e (W)	ncinĩ	Gongga (E)	anaa	maize
	khwandtoo	Gongga (E)	bu’oo	to cook
	mantcha	Farkwa (E)	agusa	food
	dori	Farkwa (E)	deru	chin
Moto (C)	habpu xa’	Ilasee (W)	habpu k’a’	it is at yours
	ladiso	Ilasee (W)	la’aso	foot of a mountain
	ncinĩ	Mpendo (Out.)	anaa	maize
	kwandtoo	Porobanguma (E)	bu’oo	to cook
	mantcha	Porobanguma (E)	agusa	food
Kurio (C)	khwandtoo	Gongga (E)	bu’oo	to cook
	mantcha	Gongga (E)	agusa	food
	tlo’o’ma	Gongga (E)	gkamagku’	cheek
Gongga (E)	dodolo	Magambua (W)	bporõ	cow/goat bell
	noría	Magambua (W)	gkerembu	nest
	anaa	Magambua (W)	ncinĩ	maize
Bugenika (E)	dodolo	Magambua (W)	bporõ	cow/goat bell
	noría	Magambua (W)	gkerembu	nest
Tumbakose (E)	gkongora’	Kinyamshindo (W)	gkemegere	axe

^aThe Sandawe is transcribed using the proposed orthography (see appendix A).

^bThe interviewees named only one village for each of the alternative forms, but it should not be concluded from this that they considered these villages to be the only ones where the alternative forms are spoken.

Table 2. Lexical differences

In total, ten different pairs of lexical items were given by the interviewees. In eight of the pairs, one form is spoken somewhere in the eastern region and the other form is spoken either in the western region or the central region. Two pairs show a difference between the western and central regions.

In addition to the village comparison question, five other questions in the language attitudes survey were designed to discover dialectal differences. One of these, question 10, asked whether it is possible to tell

where someone comes from by how they speak Sandawe. The interviewees in all the villages agreed that it is possible. The interviewees in Jogolo added that it is possible to tell only the area a person is from, and not the exact village.

Further dialectal differences were brought to light by question 16, which asked whether some Sandawe words had different meanings in different parts of the Sandawe-speaking area. Table 3 summarises the answers to this question.

<i>Surveyed village (region)</i>	<i>Sandawe</i>	<i>Meaning in surveyed village</i>	<i>Alternative meaning</i>	<i>Village (region) where alternative meaning is understood</i>
Jogolo (W)	gkirigo	small bell worn on ankle during dances	ankle	?
Dina'e (W)	k'oodtogko	smell him!	hit him on the head!	Farkwa (E)
Gonga (E)	xegkwegko	cover!	heat up!	Kwa Mtoro (W)
Bugenika (E)	xegkwegko	cover!	heat up!	Magambua (W)

Table 3. Words with alternative meanings in different parts of the Sandawe-speaking area

For at least two of the three different lexical items suggested, one meaning is understood in a village in the eastern region and the other meaning is understood in a village in the western region.

Question 15 in the language attitudes survey concerned the use of taboo words in Sandawe. In response to this question, Jogolo and Dina'e, the two villages surveyed in the western region, mentioned the words *khwalhoo* and *khwalhii*, respectively. These forms mean 'bad person' and appear to be variants of the same word. In both villages, this word may be used without causing offence, but the interviewees said that in other (unspecified) areas, the word is "very bad" and a person might be killed for using it. In Moto and Kurio, the two villages surveyed in the central region, the word *khwalhoo* was also mentioned. In both villages, the interviewees said that it would be a great insult to use the word in their village, but in the Farkwa area (eastern region), the word does not have such a strong meaning. The word in question appears therefore to be taboo in the central region, but not in either the western or eastern regions.

Questions 12 and 13 asked for examples of borrowed words in Sandawe. The interviewees in Jogolo gave examples of two Nyaturu borrowings in Sandawe: *khoa* for 'black and white cow' and *dak'wee* for 'donkey'. The village of Jogolo is near the Nyaturu-speaking area. The group interviewed in Gonga (eastern region) suggested two borrowings from the Alagwa language: *pena* for 'bald place on head', which comes from Alagwa [p^haino], and *lhangelhange* for 'chameleon', which comes from Alagwa [ʃaŋgiʃaŋgi]. The Alagwa people live in an area northeast of the Sandawe language area.

5.1.2 Attitudes to different varieties of Sandawe

The remaining questions in the language attitudes survey were included to discover how the Sandawe feel about the different varieties of Sandawe and their respective speakers. Question 1 asked the interviewees where they felt the “heartland” of the Sandawe language is. Six out of the seven villages mentioned Mangasta, which is the name for a settlement now incorporated into the village of Moto in the central region. Mangasta was also mentioned four times in replies to question 2, which asked where the best Sandawe is spoken. The three villages surveyed in the eastern region expressed the opinion that the Sandawe of their region was the “best” Sandawe. When asked about which variety of Sandawe should be classed as “proper Sandawe” (question 3), several different villages were mentioned and a variety of reasons were given. Mangasta and Moto were mentioned because of the perceived originality of their Sandawe. The interviewees in Gongga felt that their own village was an appropriate place to go to in order to learn proper Sandawe since they considered that their own Sandawe was not affected by other languages, unlike the Sandawe spoken elsewhere. The interviewees in Bugenika thought their own Sandawe is appropriate for outsiders to learn since its pronunciation is neither too fast nor too slow. Other reasons were given by the interviewees in Jogolo and Kurio for suggesting their own villages as good venues for learning proper Sandawe. The Jogolo interviewees explained that in their area, there are still lots of people who do not know Swahili, whereas the Kurio interviewees pointed out that their version of Sandawe is widely used in the central area around Kwa Mtoro, the main village in the Sandawe-speaking area. Only the interviewees in Dina’e and Tumbakose did not put forward their own village as one of the best venues for learning Sandawe.

When asked whether there are any Sandawe who speak “bad Sandawe,” six of the seven surveyed villages thought that there are. Four of these villages mentioned those Sandawe living in towns or areas with large non-Sandawe populations. Two villages used the term *Bisa* in their answers. Recall that *Bisa* is the term used by ten Raa (1970:131) to refer to the “uncouth” Sandawe, who are found in the eastern and outlying parts of the Sandawe-speaking area and whose language can be characterised as coarse and as having a slow speaking style. Those interviewed in Moto (central region) said that the *Bisa* Sandawe, who live in the Farkwa area, speak “bad Sandawe.” The interviewees in Tumbakose (eastern region), a village which is itself in the Farkwa area, also felt that the *Bisa* spoke “bad Sandawe.” For those interviewed in Tumbakose, the *Bisa* were to be found in Makorongo, Babayu, Chase, and Bugenika, four other villages in the eastern region. With respect to the question about taboos (question 15), the Tumbakose interviewees said that there are words used without offence among the *Bisa*, which are taboo words for those in Tumbakose. Although Bugenika was mentioned by those surveyed in Tumbakose as being in the *Bisa* area, the Bugenika interviewees did not regard themselves as *Bisa*. In their answer to the question about taboos, they mentioned a word used by the *Bisa* (*c’u* for ‘marry’) and a more polite word which they used themselves (*hedtegka*). Those interviewed in Jogolo (western region) also mentioned the term *Bisa* with respect to taboos. They said that there are some words which cannot be said in front of women and some words which women cannot say in front of men, but these restrictions do not hold in the *Bisa* areas.

The questions about which variety of Sandawe should be used in writing (8 and 11) elicited mixed responses. On the whole, the villages either named their own variety or did not express a strong opinion. The Jogolo interviewees added that perhaps the Farkwa dialect would be appropriate for writing since it is spoken more slowly and therefore is easier to learn. When asked specifically about a suitable variety of Sandawe in which to translate literature, those interviewed in Gongga suggested their own variety, but also agreed that any other version would be understood just as well. A similar opinion was offered in Bugenika, another village in the eastern region, where the group felt that all Sandawe was one and the same language.

Opinions on Swahili (question 4) were varied, particularly in regard to whether the language was easy to learn or not. Three villages (Jogolo, Moto, and Gongga) described Swahili as a difficult language to learn and two (Dina'e and Kurio) described it as easy. Some of those interviewed pointed out the usefulness of Swahili for communicating with non-Sandawe, and others mentioned its importance as the national language. Those interviewed in Dina'e recognised the importance and status of Swahili, but made it clear that Sandawe was their "heart language," and if books were available to read in both Swahili and Sandawe, they would choose to read in Sandawe.

The answers given to questions 5 and 6 about the vitality of Sandawe and the attitudes of young people to their mother tongue were more uniform across the seven surveyed villages. All agreed that Sandawe children are still using Sandawe at the moment, and all believed that they would continue to do so in the future. However, several of the interviewees mentioned that the young Sandawe who move away to the towns do not always continue to speak Sandawe.

In summary, the language attitudes survey provides clear evidence for dividing the Sandawe language into a western and an eastern dialect and limited evidence for further dividing the western dialect into a western dialect and a central dialect. The most commonly mentioned dialectal difference concerns whether Sandawe is spoken with a drawn out or clipped speech style, but differences relating to lexical items and taboos were also identified. The eastern dialect is clearly considered the less prestigious of the two main dialects and is referred to as Bisa Sandawe by speakers of the western dialect. Speakers of the eastern dialect also use the term Bisa, but only with reference to the Sandawe living further to the east of them and never with reference to themselves. Although the interviewees recognised different varieties of Sandawe, mutual intelligibility was never mentioned as a problem.

5.2 Lexical comparison

Fifteen wordlists were collected in the surveyed villages.⁶ Table 4 shows a comparison of these wordlists.

	<i>Number of items</i>
<i>Same lexical item, same pronunciation</i>	116
<i>Same lexical item, different pronunciations</i>	124
<i>Different lexical items</i>	6
<i>Total</i>	246

Table 4. Wordlist comparison overview

⁶The age and sex of the participants were as follows:

Western	Jogolo:	(i) 34 F	(ii) 37 M	
	Dina'e:	(i) 48 F	(ii) 56 M	
Central	Moto	(i) 34 M	(ii) 40 F	
	Kurio	(i) 33 F	(ii) 56 M	(iii) 59 M
Eastern	Gongga	(i) 50 F	(ii) 45 M	
	Bugenika	(i) 24 F	(ii) 52 M	
	Tumbakose	(i) 37 F	(ii) 33 M	

None of the differences observed in the data appeared to be determined by the sex or age of the participants.

That is, 116 of the wordlist items elicited exactly the same response from all fifteen participants. Meanwhile, 124 items elicited what were recognisably the same words from the participants, but these words were pronounced differently. The remaining six items on the wordlist elicited different words, which shared the same meaning.⁷ Section 5.2.1 below considers the six lexical differences, and section 5.2.2 considers the 124 items which contained pronunciation differences.

5.2.1 Lexical differences

Table 5 shows the six wordlist items which elicited lexical differences. In order to simplify the visual representation, the cells which should be marked “A” have been left blank.

Item no.	English gloss	Variant A	Variant B	W				C					E						
				Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb		
				1	2	1	2	1	2	1	2	3	1	2	1	2	1	2	
77	thing	màkǎ:	tʃǔ:		B														
133	maize	ˀlíní:	áná:										B	B	B	B			
157	black	k'áŋk'ará	ts'ùʔá	B															
161	what?	hótʃō:	hóbê												B			B	
194	to speak	bô	wàʔé															B	B
214	to weed	hìbà	jùbà										B	B	B	B	B	B	B

Table 5. Lexical differences

In two of the items (77 and 157), only one participant produced the B variant, and therefore it is not possible to conclude whether this is a dialectal variant or not. Similarly, the B variant of item 194 was elicited from only two participants, but since both these participants came from the same village, it is possible that this is a dialectal form. Item 161 also elicited an alternative form from two participants in the eastern region. The argument for a dialectal preference here is strengthened by this form's occurrence in the grammar questionnaire, as will be seen in section 5.3.1.

The two remaining items exhibit a clearer relationship with dialect. The B variant of item 214 was produced by all six wordlist participants from the villages in the eastern region, and the B variant of 133 was produced by four of these participants. The second of these items was mentioned as a lexical difference during the language attitudes survey (see table 2, section 5.1.1). A further item in the wordlist (92, 'axe') was also referred to as having variant forms during the language attitudes survey, but it elicited only a single form during the wordlist task.

In summary, only two items in the 246-item wordlist task produced lexical variants which showed a clear relationship with dialect. For both items, one variant was associated with the eastern region of the Sandawe-speaking area, and the other variant with the central and western regions. Leaving aside pronunciation differences, the wordlist task data shows a 99.2% lexical similarity across the fifteen participants in the seven surveyed villages.

⁷A number of items elicited different words from the participants, but on further investigation these turned out not to be exact semantic equivalents, and therefore are not counted among the six occurrences of different lexical items. For example, item 60 in the wordlist, 'fish trap', elicited words for several different types of trap.

5.2.2 Pronunciation differences

As mentioned previously, the forms elicited for 124 of the wordlist items showed differences in pronunciation. Some of these items elicited forms which differed in more than one way. In total, 204 pronunciation differences can be seen in the data.⁸ Some of these occur in only one participant's responses for an item and others occur in several. Of these 204 differences, 152 either appear not to be related to dialect in any way or occur too infrequently in the data set for any possible patterns to be visible. The remaining fifty-two occurrences of pronunciation differences have been analysed as being either clearly or possibly dialect-related and are considered in the remaining parts of section 5.

5.2.2.1 Differences involving no change in the number of segments

Twenty-eight of the fifty-two occurrences of apparently dialect-related pronunciation differences do not involve any change in the number of segments in the lexical item. Instead, the differences concern features such as the place of articulation of consonants and the length of vowels. Those differences concerning consonantal features will be discussed first below, followed by those concerning vocalic features.

Consonants

Table 6 shows those items which elicited differences concerning the pronunciation of affricates. The blank cells represent those responses which elicited the affricate indicated in the third column.

Item no.	English gloss	Affricate	W				C					E						
			Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb.		
			1	2	1	2	1	2	1	2	3	1	2	1	2	1	2	
7	head	tʃ											ts		ts	ts		
8	human hair	tʃ											ts		ts	ts		
35	woman	tʃ ^h													ts	ts		
49	wild animal	tʃ													ts	ts		
241	I	tʃ											ts		ts	ts		
22	heart	dʒ											z	z	z	z	z	
29	milk (of a cow)	dʒ											z	z	z	z	z	z
49	wild animal	dʒ											dz		dz	dz	z	z
67	walking stick	dʒ													dz	z	z	
163	rotten (fruit)	dʒ											z		z	z		
165	wet (cloth)	dʒ												z				z
220	to touch	dʒ											z		z			

Table 6. Affricates

A clear regional division can be seen in table 6. All the examples of [ts], [dz], and [z] were elicited from Sandawe speakers in the eastern region. Two processes can be seen. Firstly, there is the fronting of the post-alveolar affricates [tʃ], [tʃ^h], and [dʒ], resulting in [ts] and [dz]. Secondly, there is the weakening of the voiced affricate [dʒ] to [z]. The first of these processes was recorded in Gongga and Bugenika, but not in Tumbakose. Examples of the second process can be seen in the data from all three of the villages in the eastern region.

⁸Appendix F contains a summary table of the 204 pronunciation differences identified.

It is important to note that the two processes identified above were not observed in all the relevant lexical items in the wordlist. There are six further items containing [tʰ], and two further items containing [tʃ] in the wordlist.⁹ In these examples, the sounds were pronounced as post-alveolar affricates by all the wordlist task participants. In addition, there is one further item containing [dʒ], which did not elicit any pronunciation differences. It is also important to note that whereas some speakers from the east pronounced the relevant words in what might be termed the ‘western way’, none of the speakers from the west pronounced these words in what might be termed the ‘eastern way’.

A further consonantal difference in the wordlist data can be seen in item 53, ‘cow’, which was pronounced as [hùmbù] by those in the west and as [mùmbù] by all six participants from the eastern villages. This can also be seen in the data from the grammar questionnaire (see section 5.3.1 and appendix G). This is the only example of such a consonantal alternation in the wordlist data. The eighteen other /h/-initial words and the fifteen other /m/-initial words did not exhibit any such alternation.

Vowels

Four examples of vowel alternations in the data set appear to be dialect-related. In table 7, cells are left blank when the responses they represent were the same as the vowels given in the third column.

Item no.	English gloss	Vowel	W				C					E							
			Jogolo		Dina’e		Moto		Kurio			Gonga		Buge.		Tumb.			
			1	2	1	2	1	2	1	2	3	1	2	1	2	1	2		
7	person ^a	e e												o e		o o	o o	o e	
187	god	a							o								o		
132	three	a					o	o											
60	star	a					o	o	o	o	o	o	o	o	o	o	o	o	

^aTwo vowels (separated by the consonant /m/) show alternation in this example.

Table 7. Vowel alternations

Three of these forms appear to show a dialectal divide between the western region and the other two regions. In item 7, ‘person’, the divide seems to fall between the eastern region and the other two regions.

The wordlist contains ten items which are translated in Sandawe by monosyllabic words with a long-high falling tone on a nasalised vowel. Nine of these words were pronounced with a short vowel by some speakers, as shown in table 8. Vowel length is long, unless marked with the symbol “*.”

⁹Together with the data in table 6, this suggests that the fronting process is more common with unaspirated voiceless affricates than with aspirated ones. It should also be noted that the data collected does not indicate that the fronting process is affected by the quality of the vowel following the affricate.

Item no.	English gloss	W				C					E					
		Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb.	
		1	2	1	2	1	2	1	2	3	1	2	1	2	1	2
3	mouth/lip			*												
6	tongue			*	*		*									
9	neck					*	*									
12	knee			*		*										
15	arm					*										
30	meat/flesh						*									
31	fat/grease (cooking)						*									
100	fire			*												
117	rain			*												

Table 8. Vowel length

As can be seen from table 8, the vowel shortening process was observed in one village in the western region and one in the central region. No example of the process was recorded in any of the villages in the eastern region.

5.2.2.2 Differences involving a change in the number of segments

Twenty-four of the fifty-two occurrences of apparently dialect-related pronunciation differences involve a change in the number of segments in the lexical item. These differences are grouped below according to whether they involve consonants, vowels, or syllables.

Consonants

Seven multimorphemic wordlist items elicited responses with an epenthetic [j] between a stem-final /a/ and a suffix-initial /a/. One further item (170, 'genuine') elicited the same epenthetic consonant between an /e/ and an /e/, in an apparently monomorphemic word. These eight items are shown in table 9. In this table and in following ones, the symbol “-” represents those responses which did not include the form under discussion. In the row for item 170, for example, the symbol “-” represents responses which contained a different lexical item from the one which was pronounced with the epenthetic consonant. Similarly, in the remaining rows this symbol represents those responses which contained a feminine subject and therefore a suffix beginning with /s/ and not /a/. The empty cells represent those responses which contained the appropriate phonetic environment for the epenthetic consonant, but did not contain the consonant itself.

Item no.	English gloss	W				C					E					
		Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb.	
		1	2	1	2	1	2	1	2	3	1	2	1	2	1	2
170	genuine	-	-	j		-		-	-	-	-		-	-	-	-
173	he holds	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
200	he knows	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
202	he loves	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
205	he runs	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
213	he digs	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
215	he plants	-	-	-	-	-	-	-	-	-	j	-	-	-	-	-
236	he catches (fish)	-	-	-	-	-	-	-	-	-	-	-	j	-	j	-

Table 9. [j] epenthesis

Taken by itself, this data clearly does not provide evidence of any dialectal form since there are very few examples of responses which contained the appropriate environment for [j] epenthesis. However, data collected during the grammar questionnaire (see section 5.3.1 below and appendix G) provides more examples and suggests that [j] epenthesis is favoured by speakers from the eastern region.

Vowels

Four wordlist items elicited responses which in some cases included an extra word-initial vowel,¹⁰ while two elicited some responses with an extra word-medial vowel, and five elicited some responses with an extra word-final vowel.

Item no.	English gloss	Position of vowel	W				C					E					
			Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb.	
			1	2	1	2	1	2	1	2	3	1	2	1	2	1	2
98	enemy	initial	-	-	-	-	-	-	-	-	-	a	-	-		-	-
149	bad	initial										a	a		a	a	
207	he comes	initial										i					
245	we	initial										u	u				
67	walking stick	medial													u	u	u
130	five	medial			a					a		a	a	a		a	a
41	son	final								e							
135	ten	final												u			
162	dirty	final					e						e				
170	genuine	final	-	-			-		-	-	-	-	e	-	-	-	-
193	she barks	final													i		

Table 10. Vowels

¹⁰The vowels termed “extra” in this section are so described since they are found in a minority of the relevant examples, but it seems likely that these are the older forms. It would therefore be inaccurate to think of these vowels as innovations, as the term “extra” might imply. Moreover, in Sandawe, “word-initial” vowels are predictably pronounced with a preceding glottal stop and therefore are not strictly word-initial.

The data suggests that the presence of the vowels is associated with the Sandawe of the eastern region. This supports the claim made by ten Raa (1970:147–151) that Bisa speakers (eastern region) retain vowels which other Sandawe speakers drop.

Syllables

Table 11 shows some items from the wordlist task which elicited responses containing additional syllables.¹¹

Item no.	English gloss	Position of syllable	W				C					E					
			Jogolo		Dina'e		Moto		Kurio			Gonga		Buge.		Tumb.	
			1	2	1	2	1	2	1	2	3	1	2	1	2	1	2
78	thing, affair	initial		-	-									im			
80	chicks	initial					ki	ki				ki	ki	ki	ki		ki
134	puppies	initial					ki	ki				ki	ki	ki	ki		ki
194	she says	initial					im					im		im	im	-	-
106	moon	medial						b _i					b _i	b _i	b _i	b _i	b _i

Table 11. Syllables

As with the other types of additional segments, the longer forms are associated with the speakers from the eastern region. However, both of the wordlist task participants from the central village of Moto also used the longer forms on several occasions. We are also aware of two further examples of similar alternate forms from our work with Sandawe speakers in the western village of Magambua. In this village, /tóngé/, meaning ‘barrel’, and /bìmbírí/, meaning ‘spirit’ or ‘shadow of a person’, are found. In the east of the Sandawe-speaking area, it is reported that the variants /kìtóngé/ and /bìrìmbírí/ are used instead.

In summary, there are fifty-two apparently dialect-related pronunciation differences in the wordlist task data. In forty-one of these differences, the variant which occurs less frequently appears to be associated with the Sandawe of the eastern region. Of these forty-one variants, only seventeen were elicited from three or more of the six participants from the eastern region, and only one was elicited from all six participants. Whereas eastern speakers produced many examples of what have been analysed as western variants, very few eastern variants were produced by the western speakers. In all the variants involving different numbers of segments, the longer forms can be classed as eastern variants.

5.3 Grammatical comparison

The grammar questionnaire contained twenty-four questions designed to elicit sentences containing a range of grammatical structures and features. In many cases, no grammatical variants were elicited by the questions, and in others the participants’ responses did not exhibit any variation which could be attributed to the effect of different dialects. Features such as word order, subject-marking morpheme distribution, specificity, grammatical tone, and noun gender, for example, showed no dialect-specific variant forms. Those structures and features which do appear to show dialect-specific behaviour are discussed in sections 5.3.1 and 5.3.2. Section 5.3.1 deals with some lexical and pronunciation

¹¹The examples with additional vowels in table 10 also involve additional syllables. Those included in table 11 contain both an additional consonant and an additional vowel. As in the previous set of examples, it should not be assumed that the forms with “additional” syllables are necessarily newer forms.

differences which were uncovered by the grammar questionnaire, and section 5.3.2 looks at grammatical differences in the responses. All these differences are shown in full in the tables given in appendix G.¹²

5.3.1 Lexical and pronunciation differences

The following lexical and pronunciation differences can be seen in the data from the grammar questionnaire in table 12.

<i>English gloss</i>	<i>Sandawe variant</i>					
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
cow	hùmbù	mùmbù	ùmbù			
moon	!ǎ:	!ǎ:su	!ǎ:sū	!ǎ:sō	!àósô	!ǎ:bisō
Namu	nâmu	námû				
say ^a	bo	mbo	imbo			
steal	isa:	hisa:				
come	li	ili				
this (3m.sg)	hě:ŋ	hě:û				
what-2sg.PC	hótŋi:	hóbî:				

^aThe verbs in this table are not marked for tone because they were elicited in a form which caused their tone patterns to be lowered so that the underlying lexical tone pattern is no longer apparent (see Hunziker, Hunziker, and Eaton 2005).

^bIn this example, the question word /hótŋō:/ ‘what’ is followed by a realis *PC* (pronominal clitic) for second person singular. A list of abbreviations used in this paper is given in appendix D.

Table 12. Lexical and pronunciation differences

The distribution of these variants is shown in table 13. For the purposes of the visual representation, the cells which represent “A” responses have been left blank.

¹²The ages of those who took part in the grammar questionnaire were recorded so that it was possible to check whether any variation was determined by age. As with the wordlist variation, none of the grammatical differences appeared to be age-related.

Q.	English gloss	W						C						E								
		Jogolo			Dina'e			Moto			Kurio			Gonga			Buge.			Tumb.		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
4	cow													B	B	B	B	B	B	B	B	B
19	cow											-	-	B	B	B	B		B	B	C	B
15	moon				D	D		C	D	D	D	D		E	F	F	F		B		F	F
5	Namu				-			-		-				B	-		-		B			
17	Namu													B	B		-					B
20	Namu														B				-			
14	say		-					-						-	C	-	B	-	B	B	B	
17	steal														B	B						
23	come													B	B	B	B		B			
3	this				-			-	B	B			B	-	B	B	B	B	B	B		B
3	what											B					B			B		B

Table 13. Distribution of lexical and pronunciation differences

As in the data from the wordlists, the less-frequently occurring variants are associated with the Sandawe of the eastern region. In particular, the participants from the village of Gongga produced more of the eastern variants.

In the cases of ‘moon’, ‘Namu’, ‘say’, ‘steal’, ‘come’, and ‘this’, the eastern variants are longer than the western variants. The example of ‘moon’ is particularly interesting as, with some exceptions, its variants form a continuum of increasing segmental complexity.

In section 5.2.2.2 above, it was indicated that the occurrence of an epenthetic [j] between a stem-final /a/ and a suffix-initial /a/ appears to be an eastern phenomenon. Data from the grammar questionnaire supports this position. In some of the responses to two questions (11 and 16), the appropriate environment for the epenthesis is found. The epenthetic [j] is found in only one of the twelve responses from the western villages, but in twelve of the thirteen responses from the eastern villages.

5.3.2 Grammatical differences

The most clearly dialect-related grammatical difference in the data concerns the choice of postposition used to express movement towards a place, as in questions 6 and 13. The participants from the western villages used /-tànà/ on nineteen occasions and /-nà/ on five occasions, whereas the participants from the eastern villages did not use /-tànà/ at all, but used /-nà/ on eighteen occasions. The five occurrences of /-nà/ in the western data are all found in the responses to question thirteen, where the goal of the movement is a mountain. In question 6, the goal is a field. Together with the fact that /-tà/ is a postposition which expresses location *in* a place, this suggests that /-tànà/ may mean ‘movement towards and then location in a place’, and therefore it is not preferred by some speakers when the goal is something, such as a mountain, *in* which a person cannot normally be located.

Placing such speculation aside, it is interesting that in this dialectal difference, unlike in the others observed so far, it is the longer form which is the western variant. Furthermore, unlike most of the other dialectal differences recorded in the previous sections, the eastern variant is occasionally used by the western speakers, but the western variant is not used at all by the eastern speakers.

A further clear dialectal difference uncovered by the grammar questionnaire concerns the form of Sandawe connective words. Six different forms, which can all be glossed as ‘and’, are found in the data: /nì/, /hì/, /nà/, /hà/, /nĩ:/, and /hĩ:/. Some of the differences between the uses of these forms are grammatical rather than dialectal. The two forms with an /a/ vowel are only found connecting nouns, whereas the two forms with nasalised vowels are mainly found connecting verbs. The remaining two forms occur both with nouns and verbs. As can be seen in appendix G, the connective words may be accompanied by the morpheme /-ʔ/, which is suffixed to the preceding constituent. The presence of this morpheme does not show any relationship with dialect. As table 14 illustrates, what does exhibit a relationship with dialect is the choice between the forms with an initial /n/ and those with initial an /h/. The symbol “-” represents those responses which did not contain a connective word.

Q.	W						C						E								
	Jogolo			Dina'e			Moto			Kurio			Gonga			Buge.			Tumb.		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
11 ^a	-	-	n	-	-	-	-	-	-	-	-	-	h	-	-	-	-	-	-	-	-
21	-	n	n	n	n	n	n	-	h	-	n	n	h	h	h	-	h	h	h	-	h
22	n	n	-	n	n	n	n	h	h	-	-	n	h	h	h	h	h	h	h	h	h

^aQuestion 11 asked for a translation of “He ran and entered the house,” whereas question 21 asked for a translation of “She cooked and swept.” The more connected nature of the events described in the former question is reflected in the infrequent occurrence of the connective word.

Table 14. Connective words and their initial segments

The connectives /nì/, /nà/, and /nĩ:/ can be considered western variants and /hì/, /hà/, and /hĩ:/ eastern variants.

Two questions in the grammar questionnaire were designed to elicit negative verb forms. Question 12 included a first person singular present/past form, and question 14 contained a first person singular future form. The latter of these questions actually elicited eight occurrences of a third person singular future form in addition to twelve occurrences of the intended first person form. The variant forms which can be observed in the data are shown in table 15. Forms which exhibit only slight differences in assimilation are grouped together.

Q.	English gloss	Underlying form	Sandawe variant		
			A	B	C
12	I don't like him	mě:nà - ɹ' - tʃ ^h ì - sé like-3m.sg.obj.-neg.-1sg.	me:na:tʃ ^h e me:natʃ ^h e me:natʃ ^h e:	me:natʃ ^h ese me:natʃ ^h ese	
14	I won't pay	ʰemé - ì - sᵢ - ts'é pay-irr.-1sg.-neg.	ʰemests'e	ʰemestʃe	ʰemests'e'e
14	He won't pay	ʰemé - ì - ts'é pay-irr(-3m.sg.)-neg.	ʰemeits'e ʰemits'e	ʰemeitʃe	

^aSee grammatical abbreviations in appendix D.

Table 15. Negative forms

The distribution of these forms is shown in table 16. As in previous tables, the symbol “-” represents a response which did not contain the target form, and blank cells represent the A responses.

Q.	W						C						E											
	Jogolo			Dina'e			Moto			Kurio			Gonga			Buge.			Tumb.					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
12								-	B							B	B	B	B	B	B		B	-
14 (1sg.)		C					-		-	-	-	-	-	B		-	-	-	B					B
14 (3m.sg.)	-	-	-	-	-	-	-	-				B	B	B		B	-	-	B	B	B	-	-	-

Table 16. Distribution of negative forms

With respect to the present/past form (question 12), the data suggests that the ending /-tʃ^hese/ is an eastern variant, whereas the more assimilated ending /-tʃ^he/ is a western variant. The future form (question 14) shows an alternation between the endings /-tʃe/ and /-ts'e/. The former can be considered an eastern variant and the latter a western one.

A final phenomenon in the data from the grammar questionnaire which shows a clear relationship with dialect is the assimilation of the subject focus marker /-á:/ when it is suffixed to the noun /gélé/, ‘baobab tree’, which in the examples in question is used as a man’s name. Two forms can be observed in the data: /géléá:/ and /géléá:/. The first of these occurs twenty-three times in the responses from the western region and two times in the responses from the eastern region. In contrast, the assimilated form occurs only four times in the responses from the western region and eighteen times in the responses from the eastern region. This is a particularly interesting phenomenon since the data we have considered so far leads us to expect the assimilated form to be the western variant and not the eastern variant.

The remaining grammatical differences in the data do not exhibit as clear a relationship with dialect as the forms discussed above. One of these differences concerns two types of genitive construction in Sandawe. In one type, the modifier precedes the head, and these two nouns stand in a particular tonal relationship to indicate the genitive relationship. In the other type, the head precedes the modifier and the modifier is suffixed with the morpheme /-ì/. There are six questions in the grammar questionnaire which include genitive constructions, and therefore there are 126 responses (from twenty-one participants) to be considered. The majority of the responses (111 out of 126, or 88.1%) include the tonal genitive construction. Of the fifteen genitives constructed using the morpheme /-ì/, ten are in responses from the eastern villages and five are from the western villages. It is important to keep in mind that of the twenty-one questionnaire participants, nine represent the eastern region and twelve the western region. It is therefore possible that the association between the /-ì/ genitive and eastern Sandawe is stronger than it appears in the data.

A further possible grammatical difference in the data concerns the *et al.* suffix, which when suffixed to a noun X means ‘those in the company of X’. In all of the twelve responses from the western region and in four of the responses from the eastern region, the suffix takes the form /-xì/. In four of the eastern responses, the suffix is /-xì:sò/ and in one it is /-xìsò:sò/. The two longer forms may simply be due to the further addition of the specificity suffix /-ṛ̃/ and the third person plural person gender number (PGN) morpheme /-sò/. However, when asked about the meaning of the form /-xì:sò/, a Sandawe speaker from the western region was not sure that specificity was necessarily implied.

In summary, four dialect-related grammatical phenomena have been identified: the use of the postpositions /tànà/ and /nà/, the choice between /n-/ and /h-/ connectives, the assimilation of underlying morphemes in negative verb forms, and subject focus marker assimilation. Two further phenomena appear to show a slight relationship with dialect: genitive construction and the form of the *et al.* suffix.

6 Conclusion

One of the starting points for the dialect survey reported here was the previous research on Sandawe dialects undertaken by ten Raa (1970). Like ten Raa, we have found that Sandawe may be divided into two dialects. The differences between the two dialects can be described as “slight and gradual” (ten Raa 1970:147). They include speech speed and other pronunciation features, lexis, grammatical phenomena, and the use of taboo language. Mutual intelligibility exists between speakers of the two dialects.

Ten Raa used the terms *Dtelha* and *Bisa* for the two dialects (1970:131), with the former referring to “proper Sandawe” and the latter to “uncouth Sandawe.” We have chosen instead to use the more neutral terms *western Sandawe* (for *Dtelha*) and *eastern Sandawe* (for *Bisa*), since we found no Sandawe speakers who described any dialect as *Dtelha* or who was willing to describe their own dialect as *Bisa*.

A case can also be made for dividing *western Sandawe* into two sub-varieties, with one being labelled *western* and the other *central*. The research has shown that the differences between these two varieties are not as considerable as those which differentiate the western and eastern dialects.

The dividing line between the western and eastern dialects runs centrally from the northeast to the southwest of the Sandawe-speaking area. The findings of this research suggest that the Sandawe of Kwa Mtoro should be classed as western and the Sandawe of Porobanguma as eastern, thus requiring the dialect line to run between these two villages. The central sub-variety of the western dialect appears to encompass no more than six villages: Kurio, Gumbu, Moto, Gungi, Sanzawa, and (possibly) Mpendo. These dialect divisions are shown in figure 2.

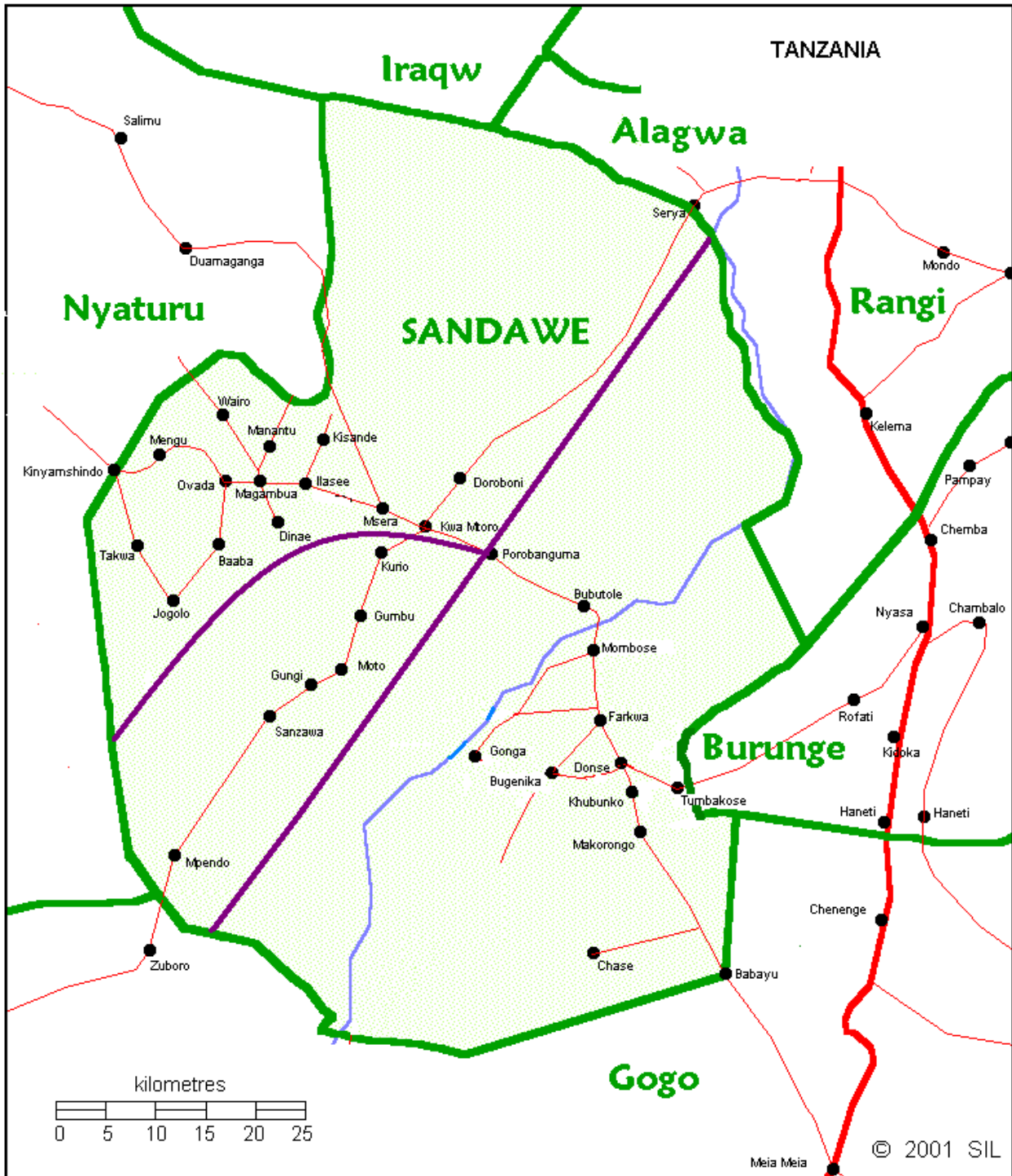


Fig. 2. Map of the Sandawe language area showing dialect divisions

One of the goals of the dialect survey was to determine the suitability of the proposed Sandawe orthography. None of the dialectal differences observed necessitates adding to or changing the grapheme inventory. The grapheme *dz*, for example, already represents a compromise between the eastern pronunciation [z] and the western pronunciation [dʒ], as decided by representatives from different parts

of the Sandawe-speaking area at an alphabet seminar in Kwa Mtoro in November 2002. The trial orthography can therefore be deemed suitable for all speakers of Sandawe.

The western dialect of Sandawe covers a more populated area than the eastern dialect does, and eastern speakers are more likely to use western variants than western speakers are to use eastern ones. These two facts argue in favour of using the western dialect as a standard for writing. In addition, the eastern dialect is considered the less prestigious of the two main dialects. However, the eastern dialect generally includes forms that involve less assimilation and are closer to underlying forms than those in the western dialect. In this respect, the eastern dialect represents a more suitable standard for writing.

It has therefore been decided to use the western dialect as a reference dialect for written Sandawe, but that, following the eastern dialect, words will be written in their unassimilated forms and with voiceless and elided vowels included in the written representation. This approach is currently being tested in literacy classes and will be revised if it proves not to facilitate reading and writing Sandawe.

Appendix A: The proposed Sandawe orthography

<i>Phoneme</i>	<i>Grapheme</i>	<i>Phoneme</i>	<i>Grapheme</i>	<i>Phoneme</i>	<i>Grapheme</i>	<i>Phoneme</i>	<i>Grapheme</i>
b	B, b	ts'	Ts', ts'	^g l	Gc, gc	i	I, i
p	Bp, bp	tɬ'	Tl', tl'	l	C, c	u	U, u
p ^h	P, p	k'	K', k'	l ^h	Ch, ch	e	E, e
d	D, d	f	F, f	l'	C', c'	o	O, o
t	Dt, dt	s	S, s	ⁿ l	Nc, nc	a	A, a
t ^h	T, t	ɬ	Lh, lh	^g l	Gq, gq	i:	Ii, ii
dʒ	Dz, dz	x	Kh, kh	!	Q, q	u:	Uu, uu
tʃ	Tc, tc	h	H, h	! ^h	Qh, qh	e:	Ee, ee
tʃ ^h	Tch, tch	m	M, m	!'	Q', q'	o:	Oo, oo
dɫ	Dl, dl	n	N, n	ⁿ !	Nq, nq	a:	Aa, aa
tɬ	Tl, tl	w	W, w	^g ll	Gx, gx	ĩ	Ĩ, ĩ
g	G, g	r	R, r	ll	X, x	ũ	Ũ, ũ
k	Gk, gk	j	Y, y	ll ^h	Xh, xh	ẽ	Ẽ, ẽ
k ^h	K, k	l	L, l	ll'	X', x'	õ	Õ, õ
ʔ	'			ⁿ ll	Nx, nx	ã	Ã, ã

Appendix B: Language attitudes survey

Date: _____ Village: _____

1. Where is the heartland of the Sandawe language?
2. Where is the best Sandawe spoken? In which villages?
3. a. If I want to learn proper Sandawe, where should I go?
b. Why?
4. What do the Sandawe think about Swahili?
5. What do the younger Sandawe think about Sandawe?
6. Do you think the future of Sandawe is secure? Are children still speaking Sandawe?
7. Use the following chart. Circle the local village. Then ask:
 - a. In the village of ..., do people speak exactly like you or are there differences?
 - b. Are the differences large or small?
 - c. What are the differences? Just pronunciation or different words?
 - d. Give examples.

<i>Village Name</i>	<i>Do they speak: Exactly like you?</i>	<i>Do they speak: Slightly differently?</i>	<i>Do they speak: Very differently?</i>	<i>How is it different? Just pronunciation or different words?</i>	<i>Give examples of the differences.</i>
<i>Kwa Mtoro</i>					
<i>Doroboni</i>					
<i>Serya</i>					
<i>Msera</i>					
<i>Ilasee</i>					
<i>Lahoda</i>					
<i>Kisande</i>					
<i>Magambua</i>					
<i>Manantu</i>					

<i>Wairo</i>					
<i>Ovada</i>					
<i>Mengu</i>					
<i>Kinyamshindo</i>					
<i>Takwa</i>					
<i>Jogolo</i>					
<i>Baaba</i>					
<i>Dina'e</i>					
<i>Kurio</i>					
<i>Gumbu</i>					
<i>Moto</i>					
<i>Gungi</i>					
<i>Sanzawa</i>					
<i>Mpendo</i>					
<i>Gonga</i>					
<i>Porobanguma</i>					
<i>Bubutole</i>					
<i>Mombose</i>					
<i>Farkwa</i>					
<i>Donse</i>					
<i>Khubunko</i>					
<i>Makorongo</i>					
<i>Chase</i>					
<i>Babayu</i>					
<i>Tumbakose</i>					
<i>Bugenika</i>					

8. a. If Sandawe is written, which dialect should be chosen for writing?

- b. Why?
9. a. Do you think there are Sandawe people who do not speak good Sandawe?
b. If yes, who are they and where are they?
10. If you hear someone talking, can you tell from which part of the Sandawe-speaking area (s)he comes by the way (s)he is speaking?
11. a. Which version of Sandawe should be used to translate the Bible?
b. Why?
12. Where the Sandawe use different words from here, are these words Sandawe or have they been borrowed from a neighbouring language?
13. a. Are there words used in Sandawe which are not originally Sandawe?
b. Give examples.
14. a. Are there words which are used here that have a different meaning in another part of the Sandawe-speaking area?
b. Give examples.
15. a. Are there words used in other areas which for you are taboo words?
b. Give examples.

Appendix C: Wordlist task

Date: _____

Village: _____

Name: _____

Age and sex: _____

Home village: _____

	English Gloss	Swahili Gloss	Sandawe ^a
1.	eye	jicho	l'wê:
2.	ear	sikio	kéké
3.	mouth/lip	mdomo	ⁿ l'û:
4.	nose	pua	ⁿ l'átĩ
5.	tooth	jino	l'ak ^h ã:
6.	tongue	ulimi	l ^h ê:
7.	head	kichwa	tʃê:
8.	human hair	nywele/manyoya	tʃê: ts'ê
9.	neck	shingo	k'wê:
10.	belly	tumbo	tʃ'ábísó
11.	back	mgongo	mògõ:ngô
12.	knee	goti	kê:
13.	leg	mguu	l ^h átá
14.	foot (if unclear, sole)	mguu (unyayo)	l ^h átá k ^h ò:tá ^b
15.	arm	mkono	tʃ'û: ʔálâmũ

^aThe sample answers in this column were given by a Sandawe speaker from Magambua, a village in the western part of the Sandawe-speaking area which was not chosen for the survey. The answers shown here were used for comparison during the elicitation of the wordlists in the surveyed villages (see section 4.4.2). In rows such as 8 and 15, where two different Sandawe lexical items were recorded in response to one prompt, each lexical item is given a separate line. In rows such as 14 and 16, the elicited item is a phrase. In some items, the elicited Sandawe forms do not belong to the same grammatical category as the English and Swahili glosses. In such cases (see, for example, item 136), a more accurate English gloss of the Sandawe form is given in parentheses.

^bThis is a genitive construction and the head word /k^hò:tà/ occurs with a lowered tone pattern. Examples 16, 49, 61, and 82 are also genitive constructions.

16.	hand (if unclear, palm)	mkono (kiganja)	tʰ'û k ^h ò:tà
17.	finger nail	kucha	ts'wáʔá
18.	skin (human)	ngozi (ya mtu)	!wê
19.	skin (of an animal)	ngozi (ya mnyama)	kèlèmbá
20.	bone	mfupa	!î
21.	blood	damu	ll'ék'â
22.	heart	moyo	dʒìgídâ
23.	liver	maini	t ^h ásjínó:
24.	horn	pembe	tʰáná
25.	wing (of a bird)	ubawa (wa ndege)	kòbá
26.	feather (of a bird)	unyoya (wa ndege)	!'û
27.	tail	mkia	ts'wǎ:
28.	egg	yai	dìʔá
29.	milk (of a cow)	maziwa (ya ng'ombe)	dʒík'é
30.	meat/flesh	nyama	ⁿfì:
31.	fat/grease (cooking)	mafuta (ya kupikia)	tʰhâ:
32.	person/human	mtu	ⁿlèmésé:
33.	man	mwanamume	ⁿlèmésé:
34.	husband	mume	máxáē:
35.	woman	mwanamke	t ^h ámétʰū
36.	wife	mke	ⁿlúmŷū
37.	father	baba mzazi	tàtá
38.	mother	mama mzazi	íó
39.	brother (same sex)	kaka (wa mwanamume)	jàjá
40.	mother's brother	mjomba	má:mê
41.	son	mwana (mtoto) wa kiume	ⁿlò:ê
42.	daughter	mwana (mtoto) wa kike	ⁿlò:sŷ
43.	chief/king	mfalme/mtawala	mànǎ:ng ^w â bàʔásê

44.	god	mungu	wàràṅgě:
45.	sick person	mgonjwa	k'wàwésê
46.	sickness	ugonjwa	k'wáó:
47.	body (human)	mwili	ⁿ fí:
48.	name	jina	wâ
49.	wild animal	mnyama wa porini	džàkáká tǿ:
50.	dog	mbwa	ká:kâ
51.	elephant	tembo	ⁿ wǎ:
52.	goat	mbuzi	ǎ:
53.	cow	ng'ombe	hùmbù
54.	bull (male cow)	fahali (ng'ombe dume)	k'ámâ
55.	chicken	kuku	kókó
56.	cock	jogoo	kòṅkòrǿ
57.	bird	ndege	t ^{hw} ǿ:
58.	snake	nyoka	ǎ:
59.	fish	samaki	sómbá
60.	fish trap	mtego wa samaki	k ^w ǿ:ngí
61.	insect (biting)	mdudu (aumaye)	tǿ: ⁿ òsǿ
62.	head louse	chawa	má:ǎ
63.	ant (biting/safari ant)	siafu	! ^h ě:tǎ
64.	tree	mti	t ^h ě:
65.	bark (of a tree)	gamba (la mti)	tǎ
66.	leaf	jani (la mti)	ǎ:
67.	walking stick	fimbo (ya kutembelea)	dž ^w ǎ:
68.	root (of a tree)	mzizi	ⁿ ǎ:
69.	seed	mbegu	bójó tě:térâ
70.	grass	nyasi	ǎpâ
71.	flower	ua	k ^{hw} ě:

72.	thorn	mwiba	ᵐᵂᵉ:
73.	field	shamba	mìndà
74.	village	kijiji	bùrùrù dèmà
75.	home/compound	kiwanja (cha nyumba)	hádô?
76.	path	njia	l̩ö:
77.	thing (object)	kitu	màkã:
78.	thing (affair)	jambo	bô
79.	rope	kamba	kû
80.	chicks	vifaranga	sô:sô
81.	thread	uzi	ɸntô
82.	stool	kigoda/kiti cha kienyeji	l̩ᵂatá kíŋí
83.	salt	chumvi	ʔũ:ŋí:
84.	utensil, vessel	chombo	tʰérê
85.	cooking pot (clay)	chungu/chombo cha kupikia	tʃʰá:
86.	iron/metal	chuma	kě:â
87.	hoe	jembe	kòl̩ö:
88.	knife	kisu	rõ:gó
89.	big knife	panga	pʰáló
90.	dull (knife)	kisu kisicho kikali	k'ùŋk'ú tùntú
91.	sharp (knife)	kisu kikali	l̩ᵂèŋkĩsè
92.	axe	shoka	kóŋgórâ? kóŋgórâ
93.	spear	mkuki	mùkě:
94.	arrow	mshale	dlàní
95.	trap	mtego	l'úmúkû
96.	hole	shimo	l'wâ
97.	bow	upinde	làní
98.	enemy	adui	ᵐlákʰōē:
99.	war	vita	ᵐlákʰò

100.	fire	moto	ll'î:
101.	firewood	kuni	wák ^h á: húk ^{hw} á:
102.	smoke	moshi	ts'úk'â
103.	ash(es)	(ma)jivu	!'úp ^h á
104.	night (time)	usiku	t ^w ě:
105.	darkness	giza	t ^h ũ:
106.	moon	mwezi	!ă:sō !â
107.	month	mwezi	!ă:sō
108.	star	nyota	hí ⁿ !áwá:
109.	sun	jua	ll'ákásų
110.	daytime	mchana	k'ímé:tê k'ímá:tê
111.	today	leo	ⁿ !ê:ts'î
112.	yesterday	jana	?útê
113.	tomorrow	kesho	p ^h ê
114.	sky	mbingu	tł'ùŋgù
115.	clouds (passing, not rain)	mawingu (ya kupitapita)	tł'ùŋgù
116.	wind (normal)	upepo	wék ^h é:
117.	rain	mvua	tł' ^w â:
118.	water	maji	ts'â
119.	river	mto	ⁿ !wâ
120.	dew	umande	ts'ě:xá:
121.	mountain	mlima	gáwâ
122.	rock	mwamba (jiwe)	dĩ:
123.	earth (soil)	udongo	!'ě:
124.	sand	mchanga	màsàŋgǎ: !'íná
125.	dust	mavumbi	k'úŋk'úrâ
126.	one	moja	ts'éxê
127.	two	mbili	kísôxî

128.	three	tatu	s ^w ámkíxǐ
129.	four	nne	hàkákǐ
130.	five	tano	k ^w à?ná
131.	six	sita	k ^w à?ná dá:ndâ ts'éxê
132.	finger millet	uele	!èkǒ:
133.	maize	mahindi	ⁿ líní:
134.	puppies	watoto wa mbwa	sǐ:ndí:
135.	ten	kumi	kómí
136.	hot (weather) (to be hot)	joto	híl'í:
137.	cold (weather) (to be cold)	baridi	tʃ ^h áwâ
138.	long (thing)	ndefu	mágándzásê ìt ^h àṅkísê
139.	short (thing) (to be short)	fupi	t ^h úṅkâ
140.	big /mé:/ (to be big /bà?é/)	kubwa	bà?é mé:
141.	wide (to be wide)	pana	!w ^a :ká
142.	small	ndogo	ts'ò:ʔtō
143.	narrow (path) (to be narrow)	nyembamba (njia)	s ^w ámá
144.	heavy	nzito	lè:kásê
145.	light (weight)	kitu chepesi	łántásê
146.	difficult	ngumu	ⁿ !áṅk'ósê
147.	easy	rahisi	mǒ:lásê
148.	good	nzuri	łáû
149.	bad (to be bad)	mbaya	xâ
150.	left (side)	kushoto	ll'ék'ánānā
151.	right (side)	kulia	tʃ'û: łáû
152.	new	mpya	llàé:
153.	all	yote	tʃ ^h íâ
154.	many/much	nyingi	dě:t ^h ē:

155.	few	chache	má:ʔtō
156.	red	nyekundu	bútt'j
157.	black	nyeusi	k'áŋk'árâ
158.	white	nyeupe	p ^h ó:
159.	who?	nani?	hō
160.	why?	kwa nini?	hótʃómē: hóbémē:
161.	what?	nini?	hótʃō: hóbê
162.	dirty (to be dirty)	chafu	l ^h wě:sj
163.	rotten (fruit)	bovu (tunda)	dʒixésê
164.	dry (cloth) (to be dry)	(kitambaa) kikavu	símé
165.	wet (cloth)	(kitambaa) kilcholowana	dʒã:ngâ
166.	it is full	imejaa	!ónts'â:
167.	she sits sit	anakaa kaa	hă:kíts'jsà hă:kíʔsà hă:kíts'j
168.	she stands up stand up	anaamka amka	hă:ngásà hă:ngâ
169.	she lies down lay down	analala lala	ⁿ línésâ ⁿ líné
170.	genuine	halisi	téfâ
171.	she takes (one thing) take (one thing)	anachukua (kitu kimoja) chukua (kitu kimoja)	síésâ síé
172.	she carries carry	anabeba beba	t ^w árásà xé:sâ t ^w árâ xé:
173.	she holds hold	anashika shika	ⁿ !á:sâ ⁿ !á:
174.	she fears fear	anaogopa ogopa	ⁿ !ó:sâ ⁿ !ó:
175.	she gives her (she gives her/him it) give him	anampa (kike kwa kike) umpe (kiume)	íʔwàsà íékô
176.	she bites bite	anauma, nga'ata uma	l'ɪŋkésâ l'ɪŋké
177.	she is hungry hunger, famine	ana njaa njaa, wakati wa njaa	ts'ô:ts'ísjsà ts'ô:ts'í

			náraḡu
178.	she eats eat	anakula kula	mántʃ ^h ásà mántʃ ^h â
179.	she drinks drink	anakunywa kunywa	ts'ésâ ts'é:
180.	she pours, spills pour, spill	anamwaga mwaga	k ^h ùʔsé:sâ k ^h úʔúmsó: ¹⁴
181.	she vomits vomit	anatapika tapika	wáll'ásâ wáll'á
182.	she coughs cough	anakohoa kohoa	úll ^h úsâ úll ^h û
183.	she breathes breathe	anahema vuta pumzi	hĩ:pásìsâ hĩ:pási
184.	she sucks suck	ananyonya nyonya	l'ínásâ l'ínâ
185.	she spits spit	anatemala tema mate	t ^h ùk'ásâ t ^h ùk'á
186.	she blows blow	anavuma/anapuliza vuma/puliza	ⁿ lùm ^h ásâ ⁿ lùm ^h â
187.	she whistles whistle	anapiga mluzi piga mluzi	ll ^{hw} enḡké:sâ ll ^{hw} enḡké:
188.	she yawns yawn	anapiga miayo piga miayo	sàwàʔtésâ sáwáʔtó:
189.	she sings sing	anaimba imba	l ^h ímésâ l ^h ímé
190.	she plays (child) play (child)	anacheza (mtoto) cheza (mtoto)	ll ^w á:ḡkísâ ll ^w á:ḡkí
191.	she laughs laugh	anacheka cheka	ⁿ l'ésâ ⁿ l'é:
192.	she weeps weep	analia lia	k'ésâ k'é:
193.	she barks bark	anabweka bweka	hě:ḡsâ hĩ:ḡsâ hě:ḡ hĩ:ḡ
194.	she says say	anasema sema	ʔímbósâ bósâ ʔímbô bô
195.	she asks ask	anauliza maswali uliza	llákáts'ásâ llákáts'ó:
196.	she sees see	anatazama tazama	l'ě:sâ l'ě:
197.	she shows show	anaonyesha onyesha	làdìʔmésâ ládímó:

¹⁴Here and in other examples a form with the nominaliser suffix /-ó:/ was elicited.

198.	she hears (voice) hear (voice)	anasikia (sauti) sikia (sauti)	k ^h é?ésâ k ^h é?é
199.	she has died die	amefariki fariki	tǎ:sǐsâ tǎ:sǐ
200.	she knows know	anajua jua	mânâ:sâ mânâ:
201.	she counts count	anahesabu hesabu	té:sâ té:
202.	she wants/likes want/like	anapenda penda	mě:násâ mě:nâ
203.	she helps help	anasaidia saidia	ádúkũsâ ádúkũ
204.	she walks walk	anatembea tembea	wérésâ wéró:
205.	she runs run	anakimbia kimbia	t ^h ásâ t ^h â
206.	she pulls (rope) pull (rope)	anavuta (kamba) vuta (kamba)	tánésâ táné
207.	she comes come	anakuja kuja	lísâ lí
208.	she leaves leave	anaondoka ondoka	tʃ ^h ékérǐsâ tʃ ^h ékérǐ
209.	she stays, sits stay	anakaa kaa	hă:kits'ǐsâ hă:kits'ǐ
210.	she falls fall	anaanguka anguka	!'âwésâ !'âó:
211.	she turns turn	anageuka geuka	p ^h í!'ísâ p ^h í!'í
212.	she burns (stalks) burn (stalks)	anachoma (mabua) choma (mabua)	kámásâ kámâ
213.	she digs dig	anachimba chimba	t ^w ásâ t ^w â
214.	she weeds weed	anapalilia palilia	hìbàsâ híbó:
215.	she plants plant	anapanda panda	llásâ llâ
216.	she hunts hunt	anawinda winda	!'înésâ !'îno:
217.	she cultivates cultivate	analima lima	ƒòmésâ ƒòmó:
218.	she slaughters slaughter	anachinja chinja	tǎ'it ^h ésâ tǎ'it ^h ó:
219.	she works work	anafanya kazi fanya kazi	jâ?bésâ jâ?bó:
220.	she touches touch	anagusa gusa	dzá:sâ dzá:

221.	she pushes push	anasukuma sukuma	tùlà?ésâ túlá?ó:
222.	she makes make	anatengeneza tengeneza	ᵐʷé:sâ ᵐʷé:
223.	she sews sew	anashona shona	tʰínésâ tʰínó:
224.	she throws throw	anatupa tupa	kʷá?kâ:sâ kʷá?kâ:
225.	she hits hit	anapiga piga	tlʰápʰé:sâ tlʰápʰó:
226.	she cuts (one time) cut (one time)	anakata (mara moja) kata (mara moja)	ᵐlě:sâ ᵐlě:
227.	she washes (pots) wash (pots)	anasafisha (vyombo) safisha (vyombo)	ᵐlókʰósâ ᵐlókʰô
228.	she hides hide	anaficha ficha	llʷá:sâ llʷá:
229.	she gives birth give birth	anazaa zaa	ʔántásâ hàbásâ ʔántá hábó:
230.	he marries he marries her marry	anaoa oa	hétékâ: síésʷâ: hétéká síé
231.	she steals steal	anaiba iba	?ísásâ ?ísó:
232.	she kills kill	ameua ua	wákʷâ:sâ wákʷâ:
233.	she stabs (with knife) stab (with knife)	anachoma (kwa kisu) choma (kwa kisu)	tlʰòngé:sâ tlʰòngó:
234.	it flies (bird) fly (bird)	anaruka (ndege) ruka (ndege)	tsʰókʷsâ tsʰókʷ
235.	she pierces to pierce	anatoboa kutoboa	ʰbésâ ʰbó:
236.	she catches fish to catch fish	anakamata (samaki) kamata (samaki)	ᵐlâ:sâ ᵐlâ:
237.	dik-dik	dikidiki	ʰĩ:â
238.	child	mtoto	ᵐlò:
239.	morning	asubuhi	tlʰíkʷj
240.	evening	jioni (saa 12- 3)	gólóbâ
241.	I	mimi	tʃí
242.	you	wewe	hàpú
243.	he	yeye (baba)	hèwé

244.	she	yeye (mama)	hèsú
245.	we	sisi	sǔ:
246.	they	wao	hòsó

Appendix D: Grammar questionnaire

Date: _____
 Village: _____
 Name: _____
 Age and sex: _____
 Home village: _____

Q1.¹⁵ *Alikata miti mbugani*

[t^hě:sâ xáts'átàsà n|è:]

t^hě: - sà xáts'à - tà - sà n|é:

tree-3f.sg.PC steppe- 3f.sg.PC cut

She cut trees in the steppe.

Q2. As answer to: What did she feed the goat?

Alimlisha mbuzi nyasi.

[łá:sâ łúp^hásà màntʃ^hàk^wè:]

łá: - sà łúp^hà - sà mántʃ^hà - kù - é:

goat-3f.sg.PC grass-3f.sg.PC eat-caus.-3m.sg.obj.

She fed the goat grass.

Q3. *Umefanya nini na chombo hiki?*

[hótʃî: n|^wè: hě:û t^héréʔî:]

hótʃō: - ì n|^wé: hě:û t^hérè - ʔî:

what-2sg.PC do dem.(prox.3m.sg.) pot-with

What are you doing with this pot?

¹⁵The sample Sandawe answers shown here were elicited during the survey in the western village of Dina'e. These answers were not included in the grammatical comparison since the speaker was originally from the central part of the Sandawe speaking area (see section 4.4.3 for the criteria by which the data elicited from certain interviewees was excluded from the grammatical comparison). The first line of Sandawe in each answer is a phonetic transcription with surface tone marked. The second line of Sandawe gives the underlying segmental and tonal forms of each morpheme.

Q4. *Lete ngozi ya ng'ombe!*

[hùmbù kèlèmbákô ðkà:]

hùmbù kèlèmbá - kò lí-ká-é

[cow skin]_{GEN.-2sg.Imp.PC} come-com.-3.sg.obj.

Bring the cow skin!

Q5. *Ndiye Namu aliyesafisha vyombo.*

[nâmyù t^hérê ⁿ||ók^hósùsù:sù]

nâmyù t^hérê ⁿ||ók^hò - sísyù - ð̃ - sù

Namu pot wash- poss.-3f.sg.-sp.-3f.sg.

It is Namu who washed the pot(s).

Q6. *Lini mtaenda shambani?*

[há?sè mindàtànà ní?sĩ:]

há?sè mindà - tà - nà ní? - ì - sĩ:

when field-loc.(to)-loc.(in) go-irr.-2pl.

When will you (pl.) go to the field?

Q7. *Jana nimenunua mbuzi mnadani.*

[?útê ðǎ:sì m̀nádáts'ìsì dlòmò:]

?útê ðǎ: - sì m̀nádà - ts'ì - sì dlòmó-é

yesterday goat-1sg.PC market-at-1sg.PC buy-3m.sg.

Yesterday I bought a goat at the market.

Q8. *Kesho K'ats'awa atafagia ndani ya nyumba.*

[p^hê k'ats'awá k^hö:tá ^hèmèsù]

p^hê k'ats'awá k^hö: - tà ^hémé - ì - sù

tomorrow K'ats'awa house-in sweep-irr.-3f.sg.

Tomorrow K'ats'awa will sweep inside the house.

Q9. *Leteni majembe yale!*

[hǎ:x^wé: kòlǒ:k^wê ⁿlǎtì-wàkà:]
 hǎ:x^wé: kòlǒ: - k^wê ⁿlǎtíwà-káé
 dem.(dist.pl.) hoe-2pl.Imp.PC come-mult.-com.-3m.sg.obj.
Bring those hoes!

Q10. *Jana tumeiona nyumba yako kubwa.*

[ʔútê hàpú k^hò: bàʔát^hè:gò lǎ:gè]
 ʔútè hàpú k^hò: bàʔá⁻òt^hè: - ʔ - ò lǎ: - é:
 yesterday [you house be-big-adj.]_{GEN.}-3m.sg. -1pl.PC see-3m.sg.obj.
Yesterday we saw your big house.

Q11. *Amekimbia akaingia nyumba.*

[t^hâ: k^hò:tánà: ⁿlè:]
 t^hâ - à - í k^hò: - tà - nà - à ⁿlè:
 run-3m.sg.PC-& house-in-to-3m.sg.PC enter
He ran and entered the house.

Q12. *Ananipenda, lakini simpendi.*

[mě:násà: lakini tʃí mẽ:nát^hè]
 mẽ:nâ - sé - à lakini tʃí mẽ:nâ - t^hè
 like-1sg.obj.-3m.sg.PC but (Swahili) I like-neg.-1sg.
He likes me, but I don't like him.

Q13. *Akina Gele watakwenda mlimani baadaye.*

[géléxì ʔéʔ gáwátànà nìʔsò]
 gélé - xì ʔéʔ gáwà - tà - nà níʔ - ì - sò
 Gele-et. al. later mountain-in-to go-irr.-1pl.
Gele et al. will go to the mountain later.

Q14. *Amesema, silipi hela hii.*

[bóà ká? hě:x^wé: p^hě:sâ:ʔ ʎ^hè mèìts'è]
 bô - à ká? hě:x^wé: p^hě:sa- ɸ^ɸ-ts'ì ʎ^hémé - ì - ts'é
 say-3m.sg.PC hear dem.(prox.pl.) money-sp.-at pay-irr.(-3m.sg.) -neg.
He said he [sic]¹⁶ won't pay this money.

Q15. *Jua linaangaza mchana.*

[ʎ^h'ákásù k'ímé:t^hésà k'ímè]
 ʎ^h'ákásù k'ímé:t^hè - sà k'ímé
 sun daytime-3f.sg.PC shine
The sun shines during the daytime.

Mwezi unaangaza usiku.

[!ă:bìsō t^wě:sâ nàʔ]
 !ă:bìsó t^wě: - sà náʔ
 moon night-3f.sg.PC burn
The moon shines at night.

Q16. As answer to: Who broke the pot?

Ni Gele aliyevunja chungu.

[géléá: tʃ^há: ʔà:mè]
 gélé - á: tʃ^há: ʔá:mé
 Gele-SF pot break(3m.sg.obj.)
Gele broke the pot.

¹⁶The Swahili sentence means, “He said, I won't pay this money.”

Q17. As answer to: Namu didn't steal your fish, did she?

Namu aliiba samaki yangu.

[námā: tʃí sómbá ʔísà:]

námù - á: tʃí sómbá ʔísá:-é

Namu-SF [I fish]_{GEN.} steal-3m.sg.obj.

Namu stole my fish.

Q18. As answer to: What did your calf eat?

Ndama yangu alikula majani.

[tʃí dāmā túp^hâ: mântʃ^hàè]

tʃí dāmā túp^hâ - à mântʃ^hâ - é

[I calf]_{GEN.} grass-3m.sg.PC eat-3m.sg.obj.

My calf ate grass.

Q19. As answer to: Degera won't cut the cow's ear, will he?

Degera atakata sikio la ng'ombe.

[dégérâ hùmbù kéké ⁿlè:ì]

dégérâ hùmbù kéké ⁿlě: - ì

Degera [cow ear]_{GEN.} cut-irr.(-3m.sg.)

Degera will cut the cow's ear.

Q20. As answer to: What will he buy?

Atanunua ndama ya Namu.

[nâmu dāmà dlòmõì]

námù dāmà dlòmó - ì

[Namu calf]_{GEN.} buy-irr.(-3m.sg.)

He will buy Namu's calf.

Q21. *Amepika akafagia.*

[x^wàntésā: |^hèmè]

x^wànté - sà - í |^hémé

cook-3f.sg.PC-& sweep

She cooked and swept.

Q22. *Samaki na kibuyu.*

[sómbá: nà màtò]

sómbá - í nà mátó

fish-& and gourd

Fish and gourd.

Q23. As answer to: Who is it who came?

Gele amekuja.

[géléá: ñ]

gélé - á: lí

Gele-SF come

Gele came.

Q24. As answer to: Who is it who went?

Gele ameenda.

[géléá: hík'í]

gélé - á: hík'ì

Gele-SF go

Gele went.

Abbreviations

1sg.	first person singular
2sg.	second person singular
3m.sg.	third person masculine singular
3f.sg.	third person feminine singular
1pl.	first person plural
2pl.	second person plural
3pl.	third person plural
(Unless otherwise indicated, all the above refer to person gender number (PNG) morphemes.)	
&	connective
[] _{GEN.}	genitive construction (indicated by tonal changes)
adj.	adjectiviser
caus.	causative
com.	comitative
dem.	demonstrative
dist.	distal demonstrative (referent is far from both hearer and speaker)
et. al.	“and those in the company of”
hear.	hearsay
Imp.PC	imperative pronominal clitic
irr.	irrealis
mult.	multiple
neg.	negative
obj.	object
PC	(realis) pronominal clitic
PGN	person gender number
poss.	possessive
pl.	plural
prox.	proximal demonstrative (referent is near to both hearer and speaker)
SF	subject focus
sp.	specific

Appendix E: Language attitudes survey comparison

1. Where is the heartland of the Sandawe language?

<i>Jogolo</i>	Moto, Mangasta
<i>Dina'e</i>	Mangasta
<i>Moto</i>	Moto, specifically Mangasta
<i>Kurio</i>	Mangasta
<i>Gonga</i>	Mangasta
<i>Bugenika</i>	Maybe Bugenika, or Mangasta
<i>Tumbakose</i>	Ovada

2. Where is the best Sandawe spoken? In which villages?

<i>Jogolo</i>	Central area – Gungi to Kurio to Bubutole.
<i>Dina'e</i>	Mangasta
<i>Moto</i>	Mangasta, Moto
<i>Kurio</i>	Moto, Mangasta, Farkwa
<i>Gonga</i>	Gonga, Adigo, Mangasta, Bubutole, Farkwa
<i>Bugenika</i>	Farkwa area
<i>Tumbakose</i>	Farkwa, Ovada, Kurio

3. a. If I want to learn proper Sandawe, where should I go?
b. Why?

<i>Jogolo</i>	Jogolo, Baba, Gumbu. There are still lots of people who don't know Swahili and there is not much influence from other people groups.
<i>Dina'e</i>	Mangasta, the Sandawe is original. But maybe it would be difficult there as the speech is drawn out, not clipped as in Dina'e. One of the group thought the Sandawe spoken in Mangasta sounds different tonally from that spoken in Dina'e.
<i>Moto</i>	Moto, it is the source area.
<i>Kurio</i>	Kurio, our Sandawe is widely used in the Moto-Kwa Mtoro area.
<i>Gonga</i>	Gonga, we don't mix our Sandawe with other languages.

<i>Bugenika</i>	Bugenika. In Kwa Mtoro, they speak too fast and in Makorongo, they speak too slowly.
<i>Tumbakose</i>	Farkwa, Ovada, Kurio. They speak pure Sandawe, but we mix our Sandawe with other languages.

4. What do the Sandawe think about Swahili?

<i>Jogolo</i>	It helps to communicate with non-Sandawe, but it is hard. There are no familiar words. Older people are happy to see children learning Swahili.
<i>Dina'e</i>	We like it and it is easy. It is the language of the nation. Sandawe is our heart language though, and if books were available in Swahili and Sandawe, we would choose Sandawe.
<i>Moto</i>	It is not the natural language to learn, but these days we make more of an effort to learn it. It is forced in education. Swahili is difficult, but it is taught and therefore we learn it better.
<i>Kurio</i>	We like it and learn it in school. It is easy. One lady said that because Sandawe is not Bantu it is hard to learn Swahili really well. We have an accent when we speak Swahili.
<i>Gonga</i>	It is a little bit difficult, especially for those who don't read.
<i>Bugenika</i>	We continue to learn it. Lots of people use it, but not all.
<i>Tumbakose</i>	We like it. The pronunciation is a little different from Sandawe.

5. What do the younger Sandawe think about Sandawe?

<i>Jogolo</i>	They still speak Sandawe, if they don't come from a mixed area.
<i>Dina'e</i>	They still prefer Sandawe, as long as they are in the villages.
<i>Moto</i>	They like Sandawe, it is their language. They prefer to speak it to Swahili, but it is necessary to learn Swahili these days.
<i>Kurio</i>	They use it as much as anyone else and like using it.
<i>Gonga</i>	They like Sandawe as long as they are in their home area, but if they go away, they are shy and try to hide the fact that they are Sandawe. Their Swahili gives them away though.
<i>Bugenika</i>	They speak Sandawe. Even if they are in town, they will use Sandawe whenever they meet another Sandawe.
<i>Tumbakose</i>	They are still using it and like to do so. They are following their elders in speaking Sandawe.

6. Do you think the future of Sandawe is secure? Are children still speaking Sandawe?

<i>Jogolo</i>	Yes, children born in the villages will keep speaking Sandawe.
<i>Dina'e</i>	Yes, children still use it and will continue to do so. They like speaking Sandawe.
<i>Moto</i>	People who stay in the Sandawe area will keep speaking Sandawe, but those who travel and work in towns will use more and more Swahili.
<i>Kurio</i>	Sandawe will continue to be used, but Swahili plays an important role in business and travel. Lots of people who go to school still don't know Swahili well, but Swahili is used in some homes and some children speak it better than they do Sandawe.
<i>Gonga</i>	Yes, children are still speaking Sandawe.
<i>Bugenika</i>	Yes, children only learn Swahili once they go to school.
<i>Tumbakose</i>	Yes, children will continue to speak Sandawe.

7. How differently is Sandawe spoken in different villages?

Key:

E Eastern region

Out. Outlier

C Central region

W Western region

0 People in this village speak exactly the same as us.

0.5 People in this village speak very slightly differently from us.

1 People in this village speak slightly differently from us.

1.5 People in this village speak differently from us.

2 People in this village speak very differently from us.

A People in this village pronounce words differently from us.

B People in this village use different words from us.

G Gogo influence

N Nyaturu influence

R Rangi influence

		<i>Jogolo</i> (W)	<i>Dina'e</i> (W)	<i>Moto</i> (S)	<i>Kurio</i> (S)	<i>Gonga</i> (E)	<i>Bugenika</i> (E)	<i>Tumbakose</i> ¹⁷ (E)
<i>W</i>	<i>Kinyamshindo</i>	0	0	2	0	1.5	2N	1AB
<i>W</i>	<i>Mengu</i>	0	0	2	0	1.5	2N	0
<i>W</i>	<i>Ovada</i>	0	0	2	0	1.5	2N	0
<i>W</i>	<i>Takwa</i>	0	0	2N	0	1.5	2N	1A
<i>W</i>	<i>Jogolo</i>	-	0	2N	0	1.5	2N	0
<i>W</i>	<i>Baaba</i>	0	0	1.5N	0	1.5	2N	0
<i>W</i>	<i>Wairo</i>	0	0	2N	0	1.5	2N	1A
<i>W</i>	<i>Manantu</i>	0	0	2	0	1.5	2N	0
<i>W</i>	<i>Magambua</i>	0	0	1A	0	1.5	2N	0
<i>W</i>	<i>Lahoda</i>	0	0N	2N	0	1.5B	2N	0
<i>W</i>	<i>Dinae</i>	0	-	1.5	0	1.5	2N	0
<i>W</i>	<i>Kisande</i>	0	0	2	0	1.5	2N	0
<i>W</i>	<i>Ilasee</i>	0	0	2ABN	0	1.5	?	0
<i>W</i>	<i>Msera</i>	0	0	2ABN	0	?	2	1.5N
<i>W</i>	<i>Kwa Mtoro</i>	0	0	1A	0	1AB	1A	1.5AN
<i>W</i>	<i>Doroboni</i>	0	0	1	0	1	1	1.5AB
<i>Out.</i>	<i>Serya</i>	1R	0.5A	2AN	0	?	?	1.5
<i>C</i>	<i>Kurio</i>	0	0	0.5	-	1A	1	0
<i>C</i>	<i>Gumbu</i>	0.5A	0.5	0	0	1	1	0
<i>C</i>	<i>Moto</i>	1A	1	-	0	1	1	0
<i>C</i>	<i>Gungi</i>	1A	1	0	0	1	1	0
<i>C</i>	<i>Sanzawa</i>	0.5	0	0G	0	1.5	1	0
<i>Out.</i>	<i>Mpendo</i>	2A	0.5	2BG	0	1.5	1	2A
<i>E</i>	<i>Porobanguma</i>	2	2	2AB	1A	0.5	1	1.5

¹⁷As mentioned in section 2.1, the answers given in this section in Tumbakose were mainly given by just one participant, who did not always seem to be well-informed about how Sandawe is spoken in different villages.

<i>E</i>	<i>Bubutole</i>	2	2	2	1A	0.5	1	1.5
<i>E</i>	<i>Mombose</i>	2	2	2	1.5A	0	1	0
<i>E</i>	<i>Farkwa</i>	2	2	2	1.5A	0	0	0
<i>E</i>	<i>Gonga</i>	2A	2	2A	1B	-	0	0
<i>E</i>	<i>Donse</i>	2	2	2	1.5A	0	0	0
<i>E</i>	<i>Bugenika</i>	2	2	x ¹⁸	x	0.5A	-	2
<i>E</i>	<i>Tumbakose</i>	2	2	x	x	x	1	-
<i>E</i>	<i>Khubunko</i>	2	2	2	1.5A	0.5A	1	0
<i>E</i>	<i>Makorongo</i>	2	2	2	1.5A	0.5A	1	2A
<i>E</i>	<i>Chase</i>	2	2	2G	1.5A	0.5A	?	2A
<i>E</i>	<i>Babayu</i>	2	2	2	1.5A	0.5A	1	2A

¹⁸Bugenika and Tumbakose were not included in the survey at first and therefore some responses are missing.

Differences suggested:

<i>Jogolo</i>	Gonga, Porobanguma, Bubutole, Mombose, Farkwa, Donse, Khubunko, Makorongo, Chase, Babayu, Tumbakose, Bugenika – this is where the Bisa are.
<i>Dina'e</i>	<p>‘maize’: Dina’e, <i>ncinĩ</i>. Cf. Gonga, <i>anaa</i>.</p> <p>‘to cook’: Dina’e, <i>khwandtoo</i>. Cf. Gonga, <i>bu'oo</i>.</p> <p>‘food’: Dina’e, <i>mantcha</i>. Cf. Farkwa, <i>agusa</i>.</p> <p>‘chin’: Dina’e, <i>dori</i>. Cf. Farkwa, <i>deru</i>.</p> <p>Gumbu, Moto – their speech is drawn out.</p> <p>Gonga – their speech is very drawn out.</p>
<i>Moto</i>	<p>‘it is at yours’: Moto, <i>habpu xa'</i>. Cf. Ilasee, <i>habpu k'a'</i>.</p> <p>‘foot of a mountain’: Moto, <i>ladiso</i>. Cf. Ilasee, <i>la'aso</i>.</p> <p>‘maize’: Moto, <i>ncinĩ</i>. Cf. Mpendo, <i>anaa</i>.</p> <p>‘to cook’: Moto, <i>khwandtoo</i>. Cf. Porobanguma, <i>bu'oo</i>.</p> <p>‘food’: Moto, <i>mantcha</i>. Cf. Porobanguma, <i>agusa</i>.</p> <p>Gonga, Porobanguma – speech is drawn out.</p>
<i>Kurio</i>	<p>‘to cook’: Kurio, <i>kwandtoo</i>. Cf. Gonga, <i>bu'oo</i>.</p> <p>‘food’: Kurio, <i>mantcha</i>. Cf. Gonga, <i>agusa</i>.</p> <p>‘cheek’: Kurio, <i>tl'o'ma</i>. Cf. Gonga, <i>gkamagku'</i>.</p> <p>Porobanguma – speech is drawn out.</p>
<i>Gonga</i>	<p>‘heat up!’: Gonga, <i>dtimegko</i>. Cf. Kwa Mtoro, <i>xegkwegko</i>, which means ‘cover!’ in Gonga.</p> <p>‘cow/goat bell’: Gonga, <i>dodolo</i>. Cf. Magambua area, <i>bporõ</i>.</p> <p>‘nest’: Gonga, <i>noria</i>. Cf. Magambua area, <i>gkerembu</i>.</p> <p>‘maize’: Gonga, <i>ana</i>. Cf. Magambua area, <i>ncinĩ</i>.</p> <p>‘sand’: Gonga, /<i>msaŋga</i>/. Cf. Magambua area, /<i>masaŋga</i>/.</p> <p>‘milk’: Gonga, /<i>zik'e</i>/. Cf. Kurio, /<i>dzik'e</i>/.</p> <p>Khubunko, Makorongo, Chase, Babayu and Bugenika – their speech is very drawn out. They are called <i>Bisa</i>. They use Gogo words and like taboo language.</p>

<i>Bugenika</i>	<p>‘heat up!’: Bugenika, <i>dtimegko</i>. Cf. Magambua, <i>xegkwegko</i>, which means ‘cover!’ in Bugenika.</p> <p>‘cow/goat bell’: Bugenika, <i>dodolo</i>. Cf. Magambua, <i>bporõ</i>.</p> <p>‘nest’: Bugenika, <i>norja</i>. Cf. Magambua, <i>gkerembu</i>.</p> <p>Kwa Mtoro, Kisande, Lahoda, Magambua, Manantu, Wairo, Ovada, Mengu, Kinyamshindo, Takwa, Jogolo, Baaba, Dina’e, Kurio, Porobanguma, Bubutole, Mombose – their speech is faster.</p> <p>Khubunko, Makorongo, Babayu – their speech is very drawn out. They are Bisa.</p>
<i>Tumbakose</i>	<p>‘axe’: Tumbakose, <i>gkongora</i>. Cf. Kinyamshindo, <i>gkemegere</i>.</p> <p>Doroboni – their speech is clipped.</p> <p>Mpendo, Makorongo, Chase, Babayu – their speech is very drawn out.</p>

8. a. If Sandawe is written, which dialect should be chosen for writing?
b. Why?

<i>Jogolo</i>	Jogolo, or Farkwa since it is slower and easier to learn.
<i>Dina’e</i>	Dina’e, but that is not an objective opinion.
<i>Moto</i>	Moto, it is better.
<i>Kurio</i>	Kurio, more people use it.
<i>Gonga</i>	No strong opinion on this.
<i>Bugenika</i>	Don’t know.
<i>Tumbakose</i>	Tumbakose, it will be understood quickly.

9. a. Do you think there are Sandawe people who do not speak good Sandawe?
b. If yes, who are they and where are they?

<i>Jogolo</i>	Yes, but only those who live in mixed areas.
<i>Dina’e</i>	Yes, the people who were born in towns, but they quickly learn Sandawe when they move to the villages.
<i>Moto</i>	Yes, the people who live in the Farkwa area. The “Bisa Sandawe.”
<i>Kurio</i>	Yes, the Sandawe living in towns and some younger people.
<i>Gonga</i>	Yes, the Sandawe who have grown up in the towns.

<i>Bugenika</i>	No.
<i>Tumbakose</i>	Yes, some people mix in Gogo words. Makorongo, Babayu, Chase and Bugenika – they are Bisa.

10. If you hear someone talking, can you tell from which area of the Sandawe-speaking area (s)he comes by the way (s)he is speaking?

<i>Jogolo</i>	Yes, but only the area, not the exact village.
<i>Dina'e</i>	Yes.
<i>Moto</i>	Yes.
<i>Kurio</i>	Yes, you can tell if someone is from Farkwa by how he speaks.
<i>Gonga</i>	Yes.
<i>Bugenika</i>	Yes, if someone speaks very quickly.
<i>Tumbakose</i>	Yes, by his pronunciation.

11. a. Which version of Sandawe should be used to translate the Bible?
b. Why?

<i>Jogolo</i>	No preference, whatever a committee decides.
<i>Dina'e</i>	Dina'e, but that is not an objective opinion.
<i>Moto</i>	Moto. It is the true Sandawe.
<i>Kurio</i>	Kurio.
<i>Gonga</i>	Gonga. But another version would be understood without problems.
<i>Bugenika</i>	Any version. Sandawe is one and the same language.
<i>Tumbakose</i>	Farkwa, Ovada, Kurio, Tumbakose. It is good, it will be read and understood.

12. Where the Sandawe use different words from here, are these words Sandawe or have they been borrowed from a neighbouring language?

<i>Jogolo</i>	Some are Sandawe, some are borrowed.
<i>Dina'e</i>	Sandawe
<i>Moto</i>	Not sure.

<i>Kurio</i>	Sandawe.
<i>Gonga</i>	Some are borrowed, some are just different Sandawe words.
<i>Bugenika</i>	-
<i>Tumbakose</i>	Sandawe, but they have been joined with other languages.

13. a. Are there words used in Sandawe which are not originally Sandawe?
b. Give examples.

<i>Jogolo</i>	Yes. Sandawe use <i>khoa</i> for ‘black and white cow’ and <i>dak’we</i> for ‘donkey’. These words come from Nyaturu.
<i>Dina’e</i>	-
<i>Moto</i>	-
<i>Kurio</i>	-
<i>Gonga</i>	Yes. Near Alagwa areas, Sandawe use <i>pena</i> for ‘bald place on head’, which comes from Alagwa /p ^h aino/, and <i>lhangelhange</i> for ‘chameleon’, which comes from Alagwa /ʎangitʎangi/.
<i>Bugenika</i>	-
<i>Tumbakose</i>	-

14. a. Are there words which are used here that have a different meaning in another part of the Sandawe-speaking area?
b. Give examples.

<i>Jogolo</i>	Yes. In the Jogolo area, <i>gkirigo</i> refers to a small bell worn on the ankle during dances. In other areas, it refers to the ankle itself.
<i>Dina’e</i>	Yes. In Dina’e, <i>k’oodtogko</i> means ‘smell him!’, whereas in Farkwa it means, ‘hit him on the head!’.
<i>Moto</i>	No.
<i>Kurio</i>	No.
<i>Gonga</i>	Yes. ‘Heat up!’: Gonga, <i>dtimegko</i> . Cf. Kwa Mtoro, <i>xegkwegko</i> , which means ‘cover!’ in Gonga.

<i>Bugenika</i>	Yes. 'Heat up!': Bugenika, <i>dtimegko</i> . Cf. Magambua, <i>xegkwegko</i> , which means 'cover!' in Bugenika.
<i>Tumbakose</i>	No.

15. a. Are there words used in other areas which for you are taboo words?
b. Give examples.

<i>Jogolo</i>	Yes, <i>khwalhoo</i> , 'bad person' can be used in Jogolo, but in other areas it is very bad. There are some words which people cannot say in front of women, or women cannot say in front of men. In Bisa areas these restrictions are not found.
<i>Dina'e</i>	Yes, <i>khwalhii</i> , 'bad person' (?) is fine to use in Dina'e, but elsewhere people might kill you for saying it.
<i>Moto</i>	Yes, in the Farkwa area, <i>khwalhoo</i> , 'bad person', can be used without meaning much by it, but in Moto it is an insult and only used by very angry people.
<i>Kurio</i>	Yes, same example as given in Moto.
<i>Gonga</i>	Yes, words referring to genitals.
<i>Bugenika</i>	Yes, the Bisa use <i>c'u</i> for 'marry', which means 'copulate'. In Bugenika, <i>hedtegka</i> is used for 'marry'.
<i>Tumbakose</i>	Yes, the Bisa use words which are fine for them, but are swear words for us.

Appendix F: Wordlist task comparison

The table below shows the distribution of the 204 pronunciation differences elicited during the wordlist task. The number of occurrences of each type of difference is divided into whether the difference has been analysed as related to dialect or not.

<i>Difference type</i>		<i>Number of occurrences</i>		
<i>Category</i>	<i>Sub-category</i>	<i>Dialect-related</i>	<i>Not dialect-related</i>	<i>Total</i>
Consonant alternation	Aspiration of stop	0	18	18
	dʒ/z	7	0	7
	Fronted affricate	7	0	7
	Labiovelarisation	0	5	5
	Ejective	0	4	4
	Voicing	0	2	2
	h/m	1	0	1
	l/n	0	1	1
	m/?	0	1	1
	Metathesis	ʔ/d	0	1
Vowel alternation	a/e	0	4	4
	u/o	0	3	3
	e/i	0	2	2
	e/u	0	2	2
	a/o	2	0	2
	e/o	1	0	1
	a/o/u	1	0	1
	o/e/i	0	1	1
Vowel length	Monosyllabic hl(l)	9	0	9
	Word-initial	0	2	2
	Word-medial	0	15	15
	Word-final	0	8	8
Tone	high/falling	0	5	5
	low/high	0	5	5
	HL/L ¹⁹	0	3	3
	rising/low	0	3	3
	rising/high	0	3	3
	low/falling	0	1	1
Nasalisation of vowel		0	8	8
Voicing of vowel		0	5	5

¹⁹This sub-category concerns the alternation between a high falling tone melody in a word and a low melody. All the other tonal differences in the table represent instead an alternation between the tonal patterns of individual vowels.

Length and tone	short low/long rising	0	6	6
	short high/long rising	0	4	4
	short falling/long high	0	4	4
	short falling/long rising	0	1	1
	short falling/long low	0	1	1
	short low/long high	0	1	1
Word-initial consonant ²⁰		0	2	2
Word-medial consonant	j	8	0	8
	Nasal	0	5	5
	?	0	4	4
	Other	0	2	2
Word-final consonant		0	1	1
Word-initial vowel		4	0	4
Word-medial vowel		2	8	10
Word-final vowel		5	0	5
Syllable	Word-initial	4	1	5
	Word-medial	1	5	6
	Word-final	0	3	3
Major syllabic difference		0	2	2
<i>Total</i>		52	152	204

²⁰This category and all those following it in the table relate to items in the wordlists which contained different numbers of segments or syllables.

Appendix G: Grammar questionnaire comparison

Only those features which show evidence of a relationship with dialect are included in the comparison below. The seven villages surveyed are listed in geographical order, beginning with the one located furthest west and ending with the one located furthest east. The symbol “-” indicates that no variant of the target form was given in the response. Surface tone patterns are included in the transcriptions.

Lexical and pronunciation differences

(i) Nouns

<i>Q4</i> <i>cow</i>	<i>Q19</i> <i>cow</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
hùmbù	hùmbù	Jogolo	39	F
hùmbù	hùmbù	Jogolo	45	F
hùmbù	hùmbù	Jogolo	50	M
hùmbù	hùmbù	Dina'e	31	F
hùmbù	hùmbù	Dina'e	54	F
hùmbù	hùmbù	Dina'e	56	M
hùmbù	hùmbù	Moto	34	M
hùmbù	-	Moto	45	F
hùmbù	-	Moto	49	M
hùmbù	hùmbù	Kurio	29	F
hùmbù	hùmbù	Kurio	32	M
hùmbù	hùmbù	Kurio	53	M
mùmbù	mùmbù	Gonga	40	M
mùmbù	mùmbù	Gonga	44	M
mùmbù	mùmbù	Gonga	52	F
mùmbù	mùmbù	Bugenika	23	F
mùmbù	mùmbù	Bugenika	30	M
mùmbù	mùmbù	Bugenika	35	M
mùmbù	mùmbù	Tumbakose	30	F
mùmbù	?ùmbù	Tumbakose	32	F
mùmbù	mùmbù	Tumbakose	42	M

<i>Q15</i> <i>moon</i>	<i>Q5</i> <i>Namu</i>	<i>Q17</i> <i>Namu</i>	<i>Q20</i> <i>Namu</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
!ǎ:	nâmu	nâmu	nâmu	Jogolo	39	F
!ǎ:	nâmu	nâmu	nâmu	Jogolo	45	F
!ǎ:	nâmu	nâmu	nâmu	Jogolo	50	M
!ǎ:	nâmu	nâmu	nâmu	Dina'e	31	F
!ǎ:sō	-	nâmu	nâmu	Dina'e	54	F
!ǎ:sō	nâmu	nâmu	nâmu	Dina'e	56	M
!ǎ:sū	-	nâmu	nâmu	Moto	34	M
!ǎ:sō	nâmu	nâmu	nâmu	Moto	45	F

!ǎ:sō	-	nâmu	nâmu	Moto	49	M
!ǎ:sō	nâmu	nâmu	nâmu	Kurio	29	F
!ǎ:sō	nâmu	nâmu	nâmu	Kurio	32	M
!ǎ:	nâmu	nâmu	nâmu	Kurio	53	M
!áósō	námû	námû	nâmu	Gonga	40	M
!ǎ:bisō	-	námû	námû	Gonga	44	M
!ǎ:bisō	nâmu	nâmu	nâmu	Gonga	52	F
!ǎ:bisō	-	-	nâmu	Bugenika	23	F
!ǎ:	nâmu	nâmu	nâmu	Bugenika	30	M
!ǎ:su	námû	nâmu	-	Bugenika	35	M
!ǎ:	nâmu	nâmu	nâmu	Tumbakose	30	F
!ǎ:bisō	nâmu	nâmu	nâmu	Tumbakose	32	F
!ǎ:bisō	nâmu	námû	nâmu	Tumbakose	42	M

(ii) Verbs²¹

Q14 say	Q17 steal	Q23 come	Village	Age	M/F
bo	?isa:	li	Jogolo	39	F
-	?isa:	li	Jogolo	45	F
bo	?isa:	li	Jogolo	50	M
bo	?isa:	li	Dina'e	31	F
bo	?isa:	li	Dina'e	54	F
bo	?isa:	li	Dina'e	56	M
-	?isa:	li	Moto	34	M
bo	?isa:	li	Moto	45	F
bo	?isa:	li	Moto	49	M
bo	?isa:	li	Kurio	29	F
bo	?isa:	li	Kurio	32	M
-	?isa:	li	Kurio	53	M
imbo	?isa:	?ili	Gonga	40	M
-	hisa:	?ili	Gonga	44	M
mbo	hisa:	?ili	Gonga	52	F
-	?isa:	?ili	Bugenika	23	F
mbo	?isa:	li	Bugenika	30	M
mbo	?isa:	?ili	Bugenika	35	M
mbo	?isa:	li	Tumbakose	30	F
-	?isa:	li	Tumbakose	32	F
-	?isa:	li	Tumbakose	42	M

²¹The verbs are not marked for tone since they were elicited in a form in which their tone patterns were lowered.

(iii) Demonstrative and question words

<i>Q3</i> <i>this</i>	<i>Q3</i> <i>what-2sg.</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
hě:ŋ	hótʃî:	Jogolo	39	F
hě:ŋ	hótʃî:	Jogolo	45	F
hě:ŋ	hótʃî:	Jogolo	50	M
hě:ŋ	hótʃî:	Dina'e	31	F
-	hótʃî:	Dina'e	54	F
hě:ŋ	hótʃî:	Dina'e	56	M
hèwé	hótʃî:	Moto	34	M
hě:û	hótʃôsî (1sg.)	Moto	45	F
hě:û	hótʃî:	Moto	49	M
hě:ŋ	hótʃî:	Kurio	29	F
hě:ŋ	hóbî:	Kurio	32	M
hě:û	hótʃî:	Kurio	53	M
hèwé	hótʃî:	Gonga	40	M
hě:û	hótʃî:	Gonga	44	M
hě:û	hótʃî:	Gonga	52	F
hě:û	hóbésà (3f.sg.)	Bugenika	23	F
hě:û	hótʃôsî (1sg.)	Bugenika	30	M
hě:û	hótʃî:	Bugenika	35	M
hě:û	hóbî:	Tumbakose	30	F
hě:ŋ	hótʃî:	Tumbakose	32	F
hě:û	hóbî:	Tumbakose	42	M

(iv) Epenthesis of [j] between stem-final /-a/ and suffix-initial /a-/:²²

<i>Q11</i>	<i>Q16</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
	-	Jogolo	39	F
	-	Jogolo	45	F
	-	Jogolo	50	M
		Dina'e	31	F
	-	Dina'e	54	F
	-	Dina'e	56	M
-	-	Moto	34	M
		Moto	45	F
	-	Moto	49	M
	-	Kurio	29	F
j	-	Kurio	32	M
-	-	Kurio	53	M
	-	Gonga	40	M
j	j	Gonga	44	M

²²The blank cells represent those responses which contained the appropriate phonetic environment for epenthesis, but no epenthetic consonant.

-	-	Gonga	52	F
-	j	Bugenika	23	F
j	j	Bugenika	30	M
j	-	Bugenika	35	M
j	j	Tumbakose	30	F
j	j	Tumbakose	32	F
j	j	Tumbakose	42	M

Grammatical differences

(i) Postpositions

<i>Q6</i>	<i>Q13</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
tànà	nà	Jogolo	39	F
tànà	tànà	Jogolo	45	F
tànà	tànà	Jogolo	50	M
tànà	nà	Dina'e	31	F
tànà	nà	Dina'e	54	F
tànà	tànà	Dina'e	56	M
tànà	nà	Moto	34	M
tànà	tànà	Moto	45	F
tànà	nà	Moto	49	M
tànà	tànà	Kurio	29	F
tànà	tànà	Kurio	32	M
tànà	tànà	Kurio	53	M
nà	nà	Gonga	40	M
nà	nà	Gonga	44	M
nà	nà	Gonga	52	F
nà	nà	Bugenika	23	F
nà	nà	Bugenika	30	M
nà	nà	Bugenika	35	M
nà	nà	Tumbakose	30	F
nà	nà	Tumbakose	32	F
nà	nà	Tumbakose	42	M

(ii) Connective form

<i>Q11</i>	<i>Q21</i>	<i>Q22</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
- ɛ̃	- ɛ̃	nà	Jogolo	39	F
- ɛ̃	- ɛ̃ nì	nà	Jogolo	45	F
nì	- ɛ̃ nì:	- ɛ̃	Jogolo	50	M
- ɛ̃	- ɛ̃ nì	nà	Dina'e	31	F
- ɛ̃	- ɛ̃ nì:	- ɛ̃ nì	Dina'e	54	F
-	- ɛ̃ nì	nì	Dina'e	56	M
- ɛ̃	- ɛ̃ nì:	nì	Moto	34	M
- ɛ̃	-	hì:	Moto	45	F
- ɛ̃	- ɛ̃ hì:	- ɛ̃ hì:	Moto	49	M
- ɛ̃	- ɛ̃	-	Kurio	29	F
-	nì:	-	Kurio	32	M
- ɛ̃	- ɛ̃ nì:	- ɛ̃ nì	Kurio	53	M
hì:	- ɛ̃ hì:	hì	Gonga	40	M
- ɛ̃	- ɛ̃ hì:	hà:	Gonga	44	M
- ɛ̃	- ɛ̃ hì:	- ɛ̃ hì:	Gonga	52	F
- ɛ̃	- ɛ̃	hà	Bugenika	23	F
- ɛ̃	hì:	hà	Bugenika	30	M
- ɛ̃	- ɛ̃ hì:	hà	Bugenika	35	M
- ɛ̃	- ɛ̃ hì:	hì	Tumbakose	30	F
- ɛ̃	- ɛ̃	hà	Tumbakose	32	F
-	hì	hà	Tumbakose	42	M

(iii) Negative form²³

<i>Q12 (3m.sg., present/past)</i>	<i>Q14 (1sg., future)</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
me:na:tʃ ^h e	l ^h emests'e	Jogolo	39	F
me:na:tʃ ^h e	l ^h emests'e'e	Jogolo	45	F
me:na:tʃ ^h e	l ^h emests'e	Jogolo	50	M
me:na:tʃ ^h e	l ^h emests'e	Dina'e	31	F
me:na:tʃ ^h e:	l ^h emests'e	Dina'e	54	F
me:na:tʃ ^h e:	l ^h emests'e	Dina'e	56	M
me:na:tʃ ^h e	l ^h emetʃe (past)	Moto	34	M
me:nasetʃ ^h e: (1sg.)	l ^h emests'e	Moto	45	F
me:na:tʃ ^h ese	l ^h emeits'e (3m.sg.)	Moto	49	M
me:na:tʃ ^h e	l ^h emits'e (3m.sg.)	Kurio	29	F
me:na:tʃ ^h e	l ^h emeitʃe (3m.sg.)	Kurio	32	M
me:na:sutʃ ^h e	l ^h emeitʃe (3m.sg.)	Kurio	53	M
me:na:tʃ ^h e:	l ^h emeitʃe (3m.sg.)	Gonga	40	M
me:na:tʃ ^h ese	l ^h emestʃe	Gonga	44	M
me:na:tʃ ^h ese	l ^h emests'e	Gonga	52	F
me:na:tʃ ^h ese	l ^h emeitʃe (3m.sg.)	Bugenika	23	F
me:na:tʃ ^h ese	l ^h emeitʃe (3m.sg.)	Bugenika	30	M

²³The underlying tone patterns of these verb forms are given in section 5.3.2 above.

me:natʃ ^h ese	l ^h emeitʃe (3m.sg.)	Bugenika	35	M
me:natʃ ^h e	l ^h emestʃe	Tumbakose	30	F
me:natʃ ^h ese	l ^h emests'e	Tumbakose	32	F
me:nasetʃ ^h e: (1sg.)	l ^h emestʃe	Tumbakose	42	M

(iv) Subject focus marker²⁴

<i>Q16</i>	<i>Q23</i>	<i>Q24</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
gelea:	gelea:	gela:	Jogolo	39	F
-	gelea:	gelea:	Jogolo	45	F
gelea:	gelea:	gelea:	Jogolo	50	M
-	gelea:	gelea:	Dina'e	31	F
gelea:	gela:	gela:	Dina'e	54	F
gelea:	gelea:	gelea:	Dina'e	56	M
gelega:	-	-	Moto	34	M
-	gelea:	gelea:	Moto	45	F
gelea:	-	-	Moto	49	M
gelea:	gelea:	gelea:	Kurio	29	F
-	gelea:	gelea:	Kurio	32	M
gelea:	gelea:	gela:	Kurio	53	M
gela:	gela:	gela:	Gonga	40	M
gela:	gela:	gela:	Gonga	44	M
gela:	gela:	gela:	Gonga	52	F
-	gela:	gela:	Bugenika	23	F
-	gela:	gela:	Bugenika	30	M
gela:	gelea:	gela:	Bugenika	35	M
-	gela:	gelea:	Tumbakose	30	F
-	gela:	gela:	Tumbakose	32	F
-	-	-	Tumbakose	42	M

(v) Genitive form

<i>Q4</i>	<i>Q10</i>	<i>Q17</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
mod.-head	mod.-head-Adj	mod.-head	Jogolo	39	F
mod.-head	mod.-head-Adj	mod.-head	Jogolo	45	F
mod.-head	mod.-head-Adj	mod.-head	Jogolo	50	M
mod.-head	mod.-head-Adj	mod.-head	Dina'e	31	F
mod.-head	mod.-head-Adj	mod.-head	Dina'e	54	F
mod.-head	mod.-head-X-Adj	head-mod.-gen.	Dina'e	56	M
mod.-head	mod.-head-Adj	mod.-head	Moto	34	M
mod.-head	mod.-head-Adj	mod.-head	Moto	45	F
mod.-head	mod.-head-Adj	mod.-head	Moto	49	M
mod.-head	mod.-head-X-Adj	mod.-head	Kurio	29	F
mod.-head	head-mod.-gen.-X-Adj	mod.-head	Kurio	32	M
mod.-head	mod.-head-X-Adj	mod.-head	Kurio	53	M

²⁴The relevant underlying tone patterns are /gélé/, /-á:/ (subject focus marker), and /-gâ/ (declarative morpheme).

mod.-head	mod.-head-X-Adj	mod.-head	Gonga	40	M
mod.-head	head-Adj-X-mod.-gen.	mod.-head	Gonga	44	M
mod.-head	mod.-head-Adj	mod.-head	Gonga	52	F
mod.-head	head-Adj-X-mod.-gen.	mod.-head	Bugenika	23	F
mod.-head	head-X-mod.-gen.-Adj	mod.-head	Bugenika	30	M
mod.-head	mod.-head-X-Adj	head-mod.-gen.	Bugenika	35	M
head-mod.-gen.	mod.-head-Adj	mod.-head	Tumbakose	30	F
mod.-head	mod.-head-Adj	mod.-head	Tumbakose	32	F
head-X-mod.-gen.	-	mod.-head	Tumbakose	42	M

<i>Q18</i>	<i>Q19</i>	<i>Q20</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
head-mod.-gen.	mod.-head	mod.-head	Jogolo	39	F
mod.-head	mod.-head	mod.-head	Jogolo	45	F
mod.-head	head-X-mod.-gen.	mod.-?-head	Jogolo	50	M
mod.-head	mod.-head	mod.-head	Dina'e	31	F
mod.-head	mod.-head	mod.-head	Dina'e	54	F
mod.-head	mod.-head	mod.-head	Dina'e	56	M
mod.-head	mod.-head	mod.-head	Moto	34	M
head-mod.-gen.	mod.-head	mod.-head	Moto	45	F
mod.-head	mod.-head	mod.-head	Moto	49	M
mod.-head	mod.-head	mod.-head	Kurio	29	F
mod.-head	mod.-head	mod.-head	Kurio	32	M
mod.-head	mod.-head	mod.-head	Kurio	53	M
mod.-head	mod.-head	mod.-head	Gonga	40	M
head-mod.-gen.	mod.-head	mod.-head	Gonga	44	M
mod.-head	mod.-head	mod.-head	Gonga	52	F
mod.-head	mod.-head	mod.-head	Bugenika	23	F
mod.-head	mod.-head	mod.-head	Bugenika	30	M
mod.-head	mod.-head	head-mod.-gen.	Bugenika	35	M
head-mod.-gen.	mod.-head	mod.-head	Tumbakose	30	F
mod.-head	mod.-head	mod.-head	Tumbakose	32	F
head-mod.-gen.	mod.-head	mod.-head	Tumbakose	42	M

(vi) *et al.* suffix

<i>Q13</i>	<i>Village</i>	<i>Age</i>	<i>M/F</i>
-x _i	Jogolo	39	F
-x _i	Jogolo	45	F
-x _i	Jogolo	50	M
-x _i	Dina'e	31	F
-x _i	Dina'e	54	F
-x _i	Dina'e	56	M
-x _i	Moto	34	M
-x _i	Moto	45	F
-x _i	Moto	49	M
-x _i	Kurio	29	F
-x _i	Kurio	32	M
-x _i	Kurio	53	M
-x _i :s _ò	Gonga	40	M
-x _i :s _ò	Gonga	44	M
-x _i :s _ò	Gonga	52	F
-x _i s _ò :s _ò	Bugenika	23	F
-x _i	Bugenika	30	M
-x _i :s _ò	Bugenika	35	M
-x _i	Tumbakose	30	F
-x _i	Tumbakose	32	F
-x _i	Tumbakose	42	M

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