

THE NDENGELEKO LANGUAGE OF TANZANIA

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Abstract

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This dissertation describes the Ndengeleko language of Tanzania, in particular the phonology and morphology in the noun and verb phrase. This Bantu language, spoken by approximately 72,000 people, has not been the subject of any previous linguistic study. The analysis is based on extensive interviews and recordings, carried out in the Rufiji region of Tanzania with various speakers of the language. A sociolinguistic survey is also included, based on interviews and a questionnaire used in schools. This survey shows that the Ndengeleko language is endangered and is being transmitted to the next generation only to a very limited extent.

Ndengeleko has seven vowels, which can be long or short, and a relatively limited consonant inventory. In general, the inventory resembles that of the reconstructed proto-language. The language has been affected by the historical sound change *spirantisation*, and has thereafter lost consonants in the relevant contexts. Morpho-phonological processes are important in Ndengeleko and result in nasal consonant sequences as well as geminate nasals. It is argued that the nasal consonant combinations are sequences rather than unit segments. Moreover, processes related to vowel concatenation play an important role in this language.

As a fairly typical Bantu language, Ndengeleko has 18 noun classes, with singular, plural or non-count reference. Apart from more regular pairings of singular and plural classes, there is a tendency to accept classes 4 and 6 as the plural of almost any singular class, rendering the number of possible combinations numerous. The division into noun classes underlies the system of agreement. Agreement is not always formal, however, but is influenced by semantic aspects such as animacy.

Ndengeleko exhibits elaborate agglutinating morphology in the verb phrase, both derivational and inflectional. The system of tense-aspect-mood is largely aspectual in its nature, and morphemes are combined to form the different categories of this system. Moreover, there is a distinction between conjoint and disjoint forms of the same tense-aspect-mood category, which is related to focus.

Keywords: Ndengeleko, Bantu, Tanzania, Rufiji, phonology, morphology, morpho-phonology, endangered languages, grammar, linguistic description, spirantisation, animacy, conjoint, disjoint

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Göteborg, February 2013

Eva-Marie Ström



Habiba Kiongoli (left) and Hawa Nyakisoma (right) recording stories. Ikwiriri 2006. (Photo by Eva-Marie Ström)

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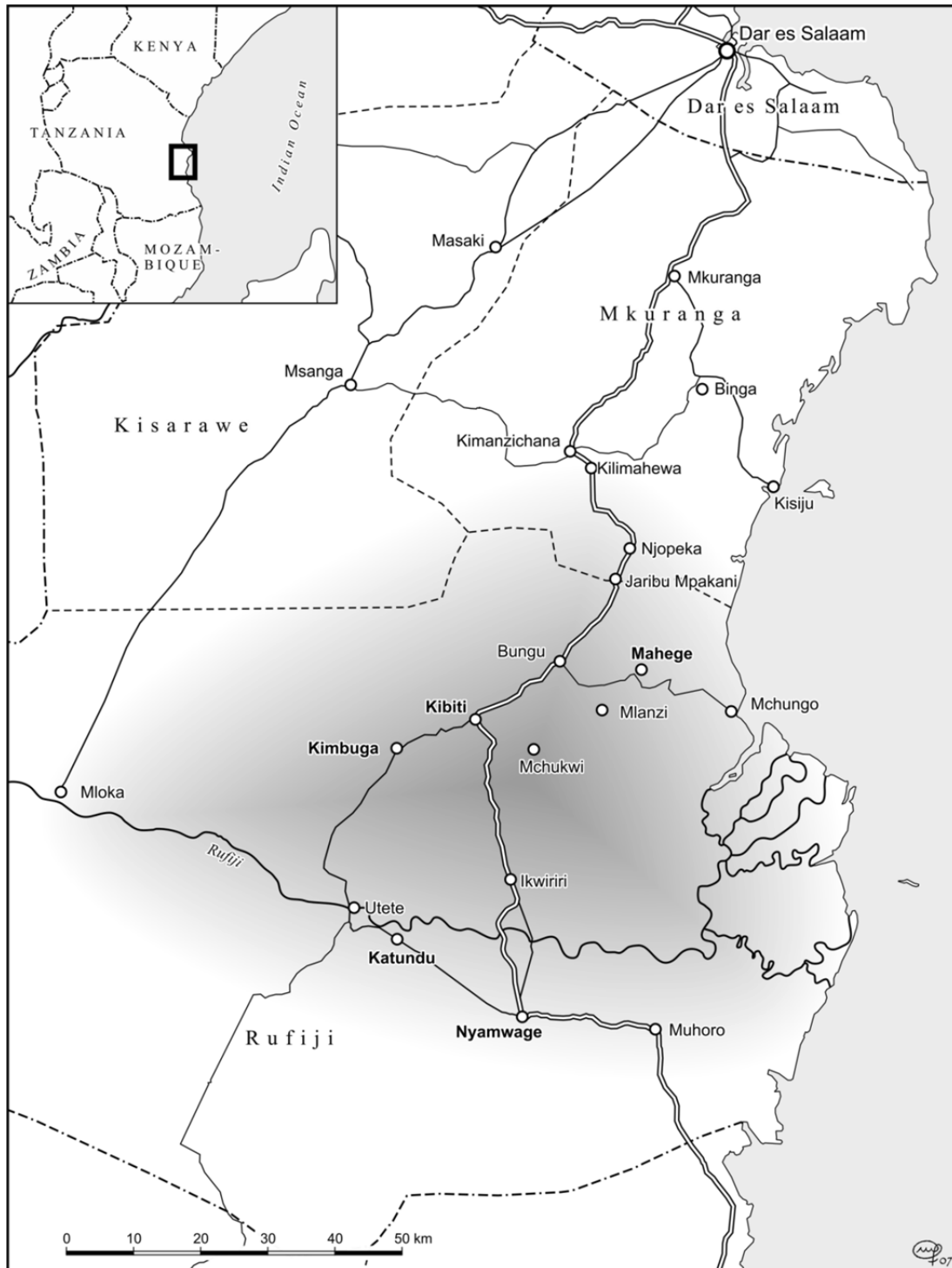
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Abbreviations and symbols

1s	1 st person singular
2s	2 nd person singular
1p	1 st person plural
2p	2 nd person plural
1	prefix for class 1
3	prefix for class 3, etc.
alt.	alternative (plural)
ATR	advanced tongue root
aug	augmentative
C	consonant
Cd	concord
CJ	conjoint
Cl.	Noun class
COMP	PB compound reconstructions
COMPL	completive
COND	conditional
DER	PB reconstructions which are derived from a basic (MAIN)
DST	distal
DJ	disjoint
EXT	extension
FUT	future
FV	final vowel
H	high tone
IAV	Immediately After Verb position
IFS	Inflectional Final Suffix
INF	infinitive
intr	intransitive
INFL	inflectional prefixes
IPA	International Phonetic Alphabet
IPFV	imperfective
IT	itive
L	low tone
L1	The language of parents and/or community that you grow up with, and that you can speak and understand. Not necessarily the language you learn first or the language in which you have the best competence.

L2	The dominating, high-status language, exerting an assimilating influence on the speakers of L1
MAIN	PB basic reconstructed etymons
N-	homorganic nasal (prefix)
NC	nasal consonant sequence
NCP	noun class prefix
NEG	negative
NP	noun phrase
OM	object marker
PB	Proto-Bantu
PFV	perfective
PL	plural
POSS	possessive
PST	past
ref	referential demonstrative
REL	relative
SG	singular
SUBJ	subjunctive
SM	subject marker
sp	species, used when the translation of an animate noun is not known, i.e. ‘fish, sp’
Sw.	expected to be a Swahili code-switch or borrowed word
TAM	tense aspect mood
tr	transitive
V	vowel
VAR	PB reconstructions which are considered to descend from another, more basic (MAIN) etymon
VB	verbal base
P10	a capital letter followed by a number refers to a Bantu language or language zone according to the classification by Guthrie (1967/71)
-	morpheme boundary
=	clitic boundary
*	(asterisk): ungrammatical form, or reconstructed Proto-Bantu form
?	reduced grammaticality
[]	phonetic representation
//	phonological representation



Map of the Ndengeleko-speaking area¹

¹ Village names in bold letters indicate where the sociolinguistic questionnaire has been used (see Chapter 2). I thank Monika Feinen at the University of Köln for producing the map following my instructions.

Part I: The Ndengeleko people and their language

1. Introduction

This thesis aims to give a synchronic description of the phonology and morphology of the previously undescribed Bantu language Ndengeleko. My goal is to describe the language as it is actually used in the place where it is spoken, without being prescriptive. The analysis of the linguistic structures of Ndengeleko is intended to fall within the tradition of descriptions of Bantu (and other African) languages, making use of typological knowledge from such descriptions and comparative work. The thesis presents the sociolinguistic situation, the phonology and the morphology of this language, which is spoken in the Mkuranga and Rufiji regions of coastal Tanzania by approximately 72,000 people.²

Chapter 1 presents background information on the Ndengeleko language. This includes information from the available literature on its classification (1.1.1) and on previous research (1.1.2). The geographical spread (1.1.3) and dialectal variation (1.1.4) of the language will be discussed, based on my own fieldwork. Following this background information, the methodology applied in this thesis is outlined in 1.2. The language consultants are presented in 1.3. An overview and the main findings of the thesis are introduced in 1.4, including general remarks on Bantu phonological and morphological structure.

1.1 *The Ndengeleko language*

1.1.1 Classification

Guthrie (1967/71) classifies Ndengeleko³ as P11. The most closely related language is Matuumbi P13. Rufiji is classified as P12, but as will be clear in 1.1.4, I regard this as the same language as Ndengeleko. According to Guthrie we also find Ngindo (P14) and Mbunga (P15) in the P10 group.

It should be kept in mind that the zones in the Guthrie classification (zone P, for example) are geographical units rather than linguistic-genetic ones (Maho

² This estimation is based on the sociolinguistic fieldwork carried out for this thesis in 2006 and is further explained in 2.4.

³ An alternative name is Ndengereko. The Ndengeleko language, however, does not have the consonant /r/. Ndengereko is the Swahili pronunciation of the language name. In this work, Bantu language names are written without the class prefix. Hence I write Ndengeleko and not KiNdengeleko, Matuumbi and not KiMatuumbi, etc.

1999:34), although the groups and clusters within the zones are set up with an eye on overall similarity (Schadeberg 2003b:146). The borders with other groups, however, are sometimes difficult to establish, as Guthrie himself points out (Guthrie 1948:27).

Other attempts have been made to establish the relationships between the languages of the Rufiji area and beyond. Hinnebusch (1981:37) includes Ngindo, Matuumbi, Rufiji and Ndengeleko in the so-called Rufiji group, within the Rufiji-Ruvuma group of languages, and excludes Mbunga.

Nurse (1988) attempts a genetic classification based on lexicostatistics and the sharing of phonological innovations. The research is based on the word lists collected for the Tanzania Language Survey (Nurse and Philippson 1975/99). Nurse includes Ndengeleko, Rufiji, Matuumbi, Ngindo, Matengo (N13), Mpototo (N14), Ngoni (N10), and Manda (N11) in the Rufiji group. He also states that Mbunga and Ndendeule (N101)⁴ should probably be included in this group. Ethnologue (Lewis 2009) adds Ndendeule and Nindi (N102) to the Guthrie P10 group.

The languages of the southwest coast of Tanzania are still poorly described. More research into these languages is needed to establish their internal and external classification. In any case, the inclusion of the northern languages (Matuumbi and Ndengeleko, including ‘Rufiji’) in this cluster is not debated.

1.1.2 Previous research

The Ndengeleko language has so far not been the subject of any grammar or grammatical sketch, judging from bibliographical surveys like Whiteley and Gutkind (1958), Polomé (1980), and most recently Maho and Sands (2002). Guthrie (1967/71) included four entries of Ndengeleko words in his comparative studies: two nouns, a numeral and a demonstrative. Some wordlists have been collected in the past, notably the Tanzania Language Survey conducted in the early 1970s (Nurse and Philippson 1975/99) and the more recent Languages of Tanzania Project, which has resulted in a language atlas (LoT 2009). The wordlists have not been published, however.

Some of these wordlists have been used in comparative studies, but have not resulted in any published articles specifically on Ndengeleko. The only published material on Ndengeleko known to me is ‘Notes on Kirufiji’ (Zhukov 1969)

⁴ Three digit codes are from Maho (2003).

consisting of a small text with a glossary, a list of nouns and some notes on the noun classes and pronunciation.⁵ Odden (1996) includes some fieldnotes on Kirufiji, as does his book chapter on the Rufiji-Ruvuma group (Odden 2003).

1.1.3 Geographical area

Going south from Dar es Salaam on the road to Kilwa, on the south-eastern coastal plains of Tanzania, one starts to encounter people from the Ndengeleko speaking community in the Mkuranga district⁶, as early as the villages of Kimanzichana and Kilimahewa. Around Njopeka and Jaribu-Mpakani close by the border between the Mkuranga and Rufiji districts, they become more numerous. The Rufiji district is the area where most Ndengeleko live. They live throughout the district, with the urban centers Kibiti, Ikwiriri and Utete forming a nucleus triangle. The map on page 9 shows the area inhabited by the majority of the people who claim Ndengeleko ethnic affiliation (the area is shaded), although they might not (any more) speak the language.

The term ‘nucleus triangle’ does not in any way imply that this is the area where ‘pure’ or more Ndengeleko is spoken. The linguistic situation in the area is highly complex. First of all, although the Ndengeleko are in the majority, people from many other ethnic groups live here as well. They interact with each other and intermarriage is common. These groups include Zaramo (mostly in the Mkuranga district), Matuumbi, Ngindo, Makonde and Pogoro. Secondly, the coastal Swahili culture and language has been influencing this region for several centuries (see 2.2).

Immediately to the south of the river Rufiji, the situation is especially complex, with people from many ethnic groups, but also many Ndengeleko. In brief, Ndengeleko is spoken throughout the Rufiji district as well as in parts of the Mkuranga district. As Chapter 2 on the sociolinguistic situation will show, the language is currently used in a limited way.

1.1.4 Dialectal variation

In the classifications mentioned above, Ndengeleko is most closely linked with Matuumbi and (the language) Rufiji in the literature. Concerning these three,

⁵ I thank Christopher Moseley for translation of the article from Russian.

⁶ Mkuranga and Rufiji are administrative districts within the Pwani region.

Nurse concludes: ‘It would be safe to regard them as dialects of one language’ (Nurse 1988:45). Ndengeleko and Matuumbi are indeed closely related and for many speakers mutually intelligible, but they are regarded as two distinct groups and language forms by the communities. Rufiji is to the best of my knowledge not a separate language variety. The people living along the river Rufiji have in early records been referred to as ‘Rufiji people’ or *warufiji*⁷ in Swahili, and their language has been referred to as *kirufiji*. Depending on whom you ask and under which circumstances, a person can refer to him- or herself as *Mrufiji* or *Mndengereko*: ‘A Rufiji or Ndengeleko person’. The term *Mrufiji* mostly refers to a person who lives close by the river. But since the river has given its name to one of the districts of the Pwani region of Tanzania in the present administration, this term can now also be confused with a more general term ‘someone who lives in the Rufiji district’. To confuse the situation further, *kirufiji* is reportedly also used to refer to the Swahili spoken by people living in the Rufiji district; Swahili has been spoken as a second language in the district for at least a century (cf. 2.2).

Be that as it may, since some people began being referred to as *warufiji* speaking *kirufiji*, the language continues to be referred to as a separate variety. And when asked about ethnic affiliation in the censuses until 1967, it was possible to tick Rufiji from a list of ethnic groups, which a number of people did. When comparing numbers from the censuses in 1948 and 1967 (Legère 1992), the people choosing Rufiji as their ethnic group seem to have decreased in number much more than the ones choosing Ndengeleko. This difference is probably due to an uncertainty about what to call the group, sometimes Rufiji, and sometimes Ndengeleko.

David Odden, who has worked on this subgroup of languages, has written a phonological and morphological description of Matuumbi (Odden 1996) with some comparative material on the language variety that he terms Rufiji, and a survey chapter of the Rufiji-Ruvuma languages (Odden 2003). He writes that ‘Rufiji speakers identify themselves as speaking the Rufiji dialect of Ndengeleko’, and notes that ‘it is not clear that there are significant linguistic difference[s] between Rufiji and Ndengeleko’ (Odden 1996:2).

I have so far not been able to distinguish any separate dialectal forms in Ndengeleko; rather, the differences in pronunciation seem idiolectal. Moreover, the Ndengeleko speakers themselves turn down the idea that there is any distinct

⁷ *Wa-* is the prefix for class 2 in Swahili, therefore *Warufiji* means ‘people of Rufiji’, and *Mrufiji* class 1 ‘person of Rufiji’. *Kirufiji* means ‘the Rufiji language’ and carries the Swahili class 7 prefix. *Kirufiji* can also mean ‘the ways/manners of Rufiji people’.

language called Rufiji, and the language name does not occur as an answer to the open question on language in the questionnaire used in the sociolinguistic survey carried out as part of my project (see Chapter 2). Following all this, I take Rufiji and Ndengeleko to be the same language.

Apart from this issue, the Ndengeleko people make distinctions between people from different parts of the Ndengeleko area. The following are the different sub-groups of the Ndengeleko people:

Warufiji: as already mentioned above, these are the people who live in the valley of the Rufiji river, especially in Ikwiriri and Utete. The name of the river Rufiji is possibly related to Ndengeleko *lwii*, meaning ‘river’. The district was then named Rufiji after the river. The people inhabiting its surroundings, including Ikwiriri and villages as Nyamwage, Chumbi and as far as Muhoro are referred to as Warufiji. They are often fishermen.

Wamagongo are the people who live ‘up in the hills’, moving north from Ikwiriri, away from the river and sea. They live in the area around Kibiti, Bungu and Mchukwi. Their name refers to the Swahili word *gongo*, ‘height, top’, and indicates ‘area located away from the water, dry area’ according to speaker AK. The people there are mainly farmers.

Walwingo are the people living upriver to the west, with Mloka as the westernmost village. Some other Ndengeleko speakers claim that the Walwingo speak a mix of Ndengeleko and Pogolo and find them difficult to understand. Others again say that their language only differs in certain words. Alongside farming, the Walwingo are hunters, as wildlife is plentiful even outside the reserve. The meaning of *lwingo* is unclear; according to some, it is the equivalent of Swahili *mbuga* ‘steppe’. According to others, it means ‘west’.

Wanyangatwa are the people living on the immediate coast, in Mchungo, Nyamisati and in the delta itself. Again, certain language consultants find *Kinyangatwa* difficult to understand, while others claim it is just a matter of a few different words or different sentence constructions. They are the people of the coast and live by fishing. *Kinyangatwa* is the only language/dialect name sometimes mentioned in the Rufiji region, apart from Ndengeleko. That is, some people refer to themselves as speaking *Kinyangatwa*. I have, on the other hand, never heard anyone claiming that they speak *Kirufiji*, *Kilwingo* or *Kimagongo*. Interestingly, Zaramo people of the coast are also referred to as *wanyangatwa* (R.Muhdar, p.c. 2008). According to the Languages of Tanzania atlas (LoT 2009:84-85), Nyangatwa is a separate language variety.

I have not found any dialectal variation connected with this geographical subdivision. There is some variation between speakers in certain aspects of pronunciation and parts of the grammar. Such variation has been noted where found, but it should be kept in mind that this might be due to other aspects than geography, such as social status, gender and formality.

Going southwards across the Rufiji river the Ndengeleko are increasingly mixed up with Matuumbi and other ethnic groups. People differ in their opinion on the intelligibility of Matuumbi. Some say it is easy to understand, while others find it more difficult. According to all persons consulted, however, the Matuumbi are regarded as forming their own ethnic group, regardless of the interintelligibility of the two languages. Judging from my comparisons with the work by Odden (1996) on Matuumbi, the two are significantly different in parts of the grammatical system. This motivates the choice made here to regard them as two languages, although they are clearly closely related. The main differences between the languages – e.g. the negative marker, differences in the TAM-system and the form of the perfective – will be noted where relevant in this thesis.

1.2 *Methods and fieldwork*

As Ndengeleko is a previously undescribed language, there is no existing corpus of texts to use as a starting point. This description of the Ndengeleko language is therefore based entirely on data collected by myself directly from speakers during fieldtrips to the Mkuranga and Rufiji regions. Six such trips, of different length, have been carried out between 2005 and 2012, with a total of 20 weeks spent in the field.

The investigation into Ndengeleko started by eliciting and recording words in order to build up a lexical database and to establish the phonology of the language, as well as the preliminaries of morphology. The elicitation was translational at first (from Swahili), but lexical items were added in a non-translational manner as speakers came up with additional words inspired by the word-lists. Early on the sessions included naming objects in the surroundings – in the kitchen, parts of the house – as well as going to the market to buy fish in order to obtain the Ndengeleko words together with pictures. The questionnaires used as a starting point, with words and sentences, are available in Swahili, which was used as the interview language, and most were provided to me by the University of Dar es Salaam, Department of Foreign Languages. With one speaker, Habiba Kiongoli (henceforth HK) English has also been used, in order to minimize direct

translations of Swahili structures. Swahili is a related Bantu language and Ndengeleko speakers are fluent in Swahili as well, posing the challenge of ‘keeping this language out’ of the Ndengeleko translations. Other speakers were not competent in English.

One of the wordlists was thematic, including sections on, for instance, the body, sensations and emotions, tools and instruments, and consisted of 500 words. The main wordlist of 1080 words was not thematic, and was based on the one used in the Languages of Tanzania project (LoT 2009), in turn inspired by the questionnaire used in the Tanzania Language Survey (Nurse and Philippson 1975/99). The wordlists were used as guidelines for the elicitation sessions, and were not followed strictly. Entries which seemed less relevant to the Ndengeleko speakers were left out, and others were added. I also added a wordlist with pictures of animals, as well as a diagram for kinship terminology, which I made myself.

Phrases were formed, with words from the different lists as starting points, by asking language consultants to form meaningful utterances, or by translating examples which I made up myself. Moreover, a questionnaire with 244 phrases and sentences, designed for Bantu morphosyntax and also provided by the University of Dar es Salaam, was used. These lists have been supplemented by numerous questionnaires with phrases and sentences developed by myself in order to fill gaps and to elicit specific structures, including, for example, animacy agreement and the conjoint/disjunct distinction. I also made use of the TAM-questionnaire by Dahl (1985).

In order to obtain language data in context, different spoken procedural texts were recorded, transcribed and glossed from relatively early on in fieldwork, e.g. of how to cook a certain dish and how to build a traditional house. I also recorded dialogues where two speakers are encouraged to talk about a certain topic, as well as personal narratives made up by speakers on something that happened to them, or in reply to questions such as ‘What do you plan to do on your next visit to Bungu?’ Moreover, traditional stories are included in the small Ndengeleko corpus built up to form the database for this thesis, spoken as well as written. I was helped in translating and transcribing the texts especially by HK. She provided explanations and cultural notes to the texts, as well as additional phrases, turning these translation sessions into additional occasions of data gathering with the consultant in control (cf. Chelliah 2001:153).

Grammaticality judgements are not the most reliable way of getting to grammatical competence (Chelliah 2001:160) and have been used in a limited way. Last but maybe not least, I have gained insights in the language by attempting

to speak Ndengeleko myself, something which seemed to please the speakers I worked with.

A large part of the data has been recorded, first using mini-disc and later digital recorders. For phonetic analysis, the wave-files were analyzed using SUGI Speech Analyzer and (especially) PRAAT. Video-recordings of storytelling have also been made.

1.3 *Language consultants*

This first description of Ndengeleko could not have been written without the tireless efforts of numerous speakers of the language. They have spent hours and hours answering questions, telling stories and explaining details of Ndengeleko life and culture. The language consultants were those who are seen by other villagers as fluent speakers of the language. They in turn often suggested other strong speakers as interviewees. The first interviews were held in Kilimahewa, in Mkuranga district. Later on I moved further south, and worked mainly with speakers in Kibiti and Ikwiriri, although speakers sometimes originated from other areas of the Rufiji region.

Towards the end of my fieldwork trips, I worked almost exclusively with Amiri Kiongoli, as he turned out to be a very competent speaker with a good amount of linguistic intuition. He also enjoys talking about his language and took a strong interest in documenting it. A large part of the analysis in this thesis is based on his idiolect.

However, care has been taken to involve speakers of different ages and genders, to attempt to get a corpus that is representative of the speech community at large (Dimmendaal 2001). All in all, I have worked with four men and four women, of different ages. All speakers have been explicitly asked to give their consent to the use of the data in published form.

In what follows, each speaker will be presented, and a code introduced which will be used throughout this work.

AK

Amiri Salum Kiongoli, born 1932 in Utete. He grew up speaking Ndengeleko only, and learnt Swahili when he entered school at the age of 12. He received basic education for eight years and then trained as a teacher. This became his profession until his retirement. He has lived outside the Rufiji region for short periods. He

now speaks Ndengeleko with his wife and to a certain extent with his children, but his grandchildren speak only Swahili.

SM

Said Musa Tawalani Rwambo, born 1954 in Ikwiriri to Ndengeleko parents. He explains that he spoke mostly Ndengeleko when he was little, but started speaking Swahili as well around the age of 3, as people in Ikwiriri were bilingual in those days. Apart from Koranic school, he has not received formal education. He has lived outside the Rufiji for twenty years, but continued to speak Ndengeleko during that time. He currently speaks Ndengeleko as well as Swahili at home, and is proud to have taught his children Ndengeleko.

HK

Habiba Kiongoli, the daughter of Amiri Kiongoli, born 1979 in Utete. Both her parents are Ndengeleko speakers, but she grew up speaking Swahili and Ndengeleko. She is a competent speaker, but the influence of Swahili can also clearly be noticed in some parts of her language. She has received teacher training, and in recent years took a bachelor's degree at the University of Zanzibar. She currently works as a head teacher in Mchukwi, Rufiji. Habiba Kiongoli has also done independent work for this project by obtaining stories from other speakers, recording and writing them down in a first version.

PK

Pili Mohammedi Kibambe, born 1978 in Utete by Ndengeleko parents. She also grew up in Utete, but now lives in Ikwiriri and works as a primary school teacher. Her husband is a Matuumbi speaker, and at home they mainly speak Swahili. She uses Ndengeleko on a daily basis with others.

SS

Salum Salee Njopeka, born 1931 in Msenekeni, Rufiji by Ndengeleko parents. He speaks Ndengeleko at home with his wife, and Swahili with others in the community. They now live in Kilimahewa. He has a strong competence in Ndengeleko.

TN

Tatuomali Nguka, born 1939 in Nyambunda, Rufiji, to a Ndengeleko father and a Zaramo mother. She has lived in Kilimahewa since 1975 with her husband Salum Salee (SS). She is more influenced by Swahili in her speech than her husband.

TO

Twaha Omari Mtwiku, born 1980 in Ikwiriri, where he also lives. His mother is Pogoro and his father Ndengeleko. He speaks Ndengeleko mainly with his grandparents, and has a talent for storytelling.

HN

Hawa Nyakisoma, born 1957 in Muhoro, where she also grew up. Both her parents were Ndengeleko speakers, and this is the language she used when growing up. She started learning Swahili at the age of 9. Her children understand Ndengeleko but cannot really speak it. Hawa has contributed several stories, procedural texts and songs.

Coded examples

Throughout the thesis, examples are coded with the initials of the speaker, followed (after a hyphen) by an indication of the kind of material the example is taken from. The following letters are used for this:

E – elicitation

S – story, legend

D – procedural description, of e.g. how to cook a certain dish, how to plait a mat; dialogue; personal narrative

Single lexical items have often been translated and pronounced by several speakers. These lexical examples are not always coded.

1.4 *Ndengeleko - a fairly typical Bantu language*

This study aims at describing the Ndengeleko language as it is currently being spoken in the place which has shaped it, by the speakers who use it. In this section, I give an overview of the topics covered in the thesis and introduce part of the terminology, in order to facilitate reading. Early on in fieldwork, it became apparent that the Ndengeleko people and their language have low status, and that the language is currently being used in an increasingly limited way. In order to understand this and the changes the language is undergoing, I considered it of crucial importance to understand more about the historical and sociolinguistic background. Therefore, a sociolinguistic survey was carried out and is included in Part 1.

The remainder of the thesis concerns the grammar of the Ndengeleko language. Important for understanding the phonology and morphology of this language as well as other Bantu languages is the concept of ‘root’. Basic nouns as well as verbs are formed around the canonical structure CVC (consonant vowel consonant). The root is minimally followed by a final vowel, but it can also be extended by means of suffixes of the form -V(C). Some of these are productive, but other suffixes are fossilized and not transparent in terms of form and meaning. The root is normally preceded by minimally one prefix of the form (C)V-. Taken together, this accounts for the CVCVCV structure of words in the agglutinating Bantu languages (Hyman 2003b:44). The syllable structure in Ndengeleko is also based on these principles. It is, however, considerably extended due to different morpho-phonological processes.

The phoneme inventory is fairly typical for a Bantu language. In fact, the seven vowels which have been reconstructed for Proto-Bantu have been retained in Ndengeleko. Moreover, the consonant inventory resembles the protolanguage to a large extent. Many eastern Bantu languages have undergone an important historical sound change called spirantization, whereby stops preceding the highest vowels /i/ and /u/, referred to as first degree high vowels in this work, have generally changed into fricatives or affricates. This means that the languages have gained on the consonantal side, as the stops have remained stops preceding the so called second degree high vowels /ɪ/ and /ʊ/. Thereafter, many of these languages have lost the second degree high vowels. In the Ndengeleko case, the consonants preceding the high vowels have been completely lost, and the seven vowels have been retained. The loss of these consonants has important consequences for syllable structure, vowel sequences and glide formation.

As is common for Bantu languages, phonology and morphology are intertwined in Ndengeleko. Phonological processes apply to certain morphemes, so that, for instance, a prefix *mu-* will surface as a nasal only, the quality of the nasal depending on the following consonant. The prefix *mu-* followed by a voiced consonant results in a geminate nasal.

The Ndengeleko language has a canonical Bantu noun class system whereby nouns belong to one of 18 noun classes. The nominal consists of a noun class prefix (NCP) of the relevant class, followed by a noun stem. Certain noun classes are only used for derivational purposes, like locatives and diminutives. A somewhat unusual trait of the Ndengeleko noun class system is the flexibility in singular/plural pairings. Plurals of class 6, and to a lesser extent class 4, can pair with almost any singular. Adnominals mostly follow the noun they qualify. Adjectives are noun-like and take the same NCP as the noun. Other adnominals

like possessives and quantifiers take a specific concord prefix in agreement with the noun they determine. There are five demonstrative stems in Ndengeleko, which can precede or follow the noun.

Agreement in Ndengeleko generally follows the noun class of the controller noun. However, there is also a semantic distinction between animate and non-animate nouns. All animates show agreement with classes 1 and 2, with some exceptions, most importantly the derived diminutive and augmentative nouns. There are also other instances where agreement deviates from the grammatical agreement according to noun class.

The agglutinating structure of Bantu languages becomes most evident in the verbal morphology, and Ndengeleko is no exception. The verb centres around a verbal base which contains the lexical material. This base is preceded by inflectional material, as affixes for subject, object and tense-aspect-mood (TAM), and followed by derivational and inflectional material. The fieldwork has brought to light a wealth of TAM-affixes. Ndengeleko makes a distinction between conjoint and disjoint forms of the same TAM. The conjoint form is used when the verb is immediately followed by material which is closely linked to the verb and in focus to some extent, e.g. an object. The conjoint form can hence not be sentence final. The disjoint form, on the other hand, is used when what follows is not closely 'joined' with the verb, and indeed, this form can be sentence final. This distinction occurs in a number of mainly eastern and southern Bantu languages. In Ndengeleko, the conjoint and disjoint forms are morphologically distinct.

Another interesting aspect of the Ndengeleko TAM-system is the perfective, expressed through a variety of suffixes which are phonologically conditioned. The form used with canonical CVC-bases is *-ike*, which is an unusual form, analysed here as having developed from the Proto-Bantu **-ide* suffix.

Negation in Ndengeleko is symmetrical and expressed by adding the negator *kwáakw* directly following the verb form. This negator is proposed to derive from the locative interrogative with the same form.

1.5 *Structure of the thesis*

Part 1 contains the introduction to the thesis in Chapter 1. Chapter 2 gives the historical and sociolinguistic background to the current situation of the Ndengeleko people and language, based on a study of the literature and on sociolinguistic fieldwork.

Part 2 of this thesis describes the phonology of Ndengeleko: consonants in Chapter 3 and vowels in Chapter 4, including syllable structure. The morphology of Ndengeleko is the subject of Parts 3 and 4. Part 3 deals with morphology in the noun phrase, with the structure of the noun and the noun classes in Chapter 5 and the adnominals in Chapter 6. Chapter 7 discusses animacy and other aspects related to agreement. Morphology in the verb phrase is the topic of Part 4, starting with verbal derivation in Chapter 8. Inflection of subject and object is discussed in Chapter 9. Thereafter, the tense-aspect-mood system of Ndengeleko is analysed, including the conjoint-disjoint distinction, in Chapter 10. In Chapter 11, negation is discussed and lastly copula constructions and non-verbal predication in Chapter 12.

2. The sociolinguistic situation of Ndengeleko

2.1 Introduction

The aim of this chapter is to give some background to the historical and current social context of the Ndengeleko language. This knowledge has proven especially helpful in a better understanding of the apparent low collective self-esteem of the Ndengeleko people, the linguistic interference and the rapid decrease in language use.

The historical background is based on a literature study and is presented in 2.2. Following this, I carried out sociolinguistic research during fieldwork in August 2006, see also Ström (2009). This consisted of a survey of language use in the form of a questionnaire in schools, supplemented by interviews. The aim of this research was to find out more about the area where Ndengeleko is spoken, the number of speakers and current use of the language. The rate of endangerment is estimated and reference is made to the criteria formulated by the UNESCO Ad Hoc Expert Group on Endangered languages (UNESCO 2003). As we shall see, there are strong reasons to be concerned about the future of Ndengeleko. The methodology used for this study is presented in 2.3. The number of speakers will be estimated in 2.4.

Two factors included in the list by UNESCO will be given special attention, as I regard them as contributing very heavily to the question of endangerment: language attitudes, discussed in 2.5, and intergenerational transmission, discussed in 2.6. In 2.7 the endangered status of Ndengeleko is discussed with reference to all UNESCO factors. They are not simply listed but discussed according to their supposed importance to the Ndengeleko situation.

2.2 History of the Rufiji area and the Ndengeleko people

There are, to my knowledge, no publications on the history of the Rufiji delta specifically or on the people who have inhabited this area throughout the centuries. The bits and pieces of information had to be gathered from different sources. A common thread does however seem apparent from the scarce details available: the trade and mingling of peoples and languages.

According to Nurse and Spear (1985:40-41) the Rufiji-Ruvuma groups are likely to have moved towards the area they now cover in the first millennium after Christ. The study by Nurse (1988) suggests that the Matuumbi/Rufiji/Ndengeleko

people at first led a rather isolated existence on the Lower Rufiji. The languages appear ‘conservative and lexically retentive’ (Nurse 1988:71).

When this changed is not known, but it is not unlikely that the Rufiji delta and surroundings was involved in trading networks to and from Kilwa, an important centre of trade, from the beginning of the second millennium until 1505 when it was destroyed by the Portuguese (Nurse and Spear 1985:19).

The languages spoken in this area have become what they are today by slowly growing apart, at the same time being influenced by migrations and contacts with people speaking differently. The extreme south-east was the scene of vigorous immigration around 1800, by Makonde and other groups from Mozambique (Ilfie 1979:8). The Makonde and maybe others reached as far as the Rufiji area in that time or later in history, contributing to the current multi-ethnic composure.

Stories of migrations fill the history of Tanzania, but they have generally been gradual, with people slowly spreading over the land and mingling with existing occupants. Also, in the pre-colonial history of Tanzania it is difficult to speak of discrete tribes with distinct territories and languages; rather, one group imperceptibly merged into another. People throughout eastern Tanganyika were often referred to by the environment in which they lived, or by their profession. *Ndengeleko*, as well as for example *Matuumbi*, *Kagulu* and *Vidunda*, literally means ‘highlanders’, according to Ilfie (1979:9). The name of the ethnic group *Makua* meant above all ‘elephant hunter’, and *Mwera* meant ‘indigenous agriculturalist’ (Ranger 1979).

It is not known how far the Ndengeleko people were involved in the slave trade, but around the beginning of the 19th century, Kilwa was the largest slave-exporting harbour of the coast, just around 100 kilometers away. In historical records, they are neither mentioned as slave-raiders, as were the Ngoni and Mbunga, nor as victims, as were the Ngindo (Becker 2010).

From the middle of the 19th century onwards we know more about the Rufiji delta and plains, as explorers have left written records behind. Stanley declared the Rufiji valley the most populous area he had seen in Africa. The delta was so famed for its rice that it was known as Little Calcutta (Ilfie 1979:71). The rice was chiefly traded with Zanzibar. Alongside agriculture, hunting and fishing, the forest and woodland have been of tremendous importance to the people living there and to the traders who came there (Sunseri 2003). The forest provided trade products such as wax, rubber, ivory, mangroves and copal. These were exchanged with Indians and Arabs who settled on the coast, before the advent of colonialism.

The mangrove wood industry was centuries old, according to Sunseri (2003). The forest also provided the Rufiji people with wood for local use: buildings, canoes and charcoal, for example. What is more, the forest was important for religious activity. The village Mpanga, for example, seemed to have been a spiritual centre, as well as the hot spring located close to Utete. Citing the British officer Frederic Elton, who in 1874 visited the Rufiji delta and its surroundings, Sunseri (2003) writes about the importance of the forest to the inhabitants in this region in relation to the outbreak of the Maji Maji war (1905–1907). He argues that German forest-reserve policy in the Rufiji and Kilwa regions at the end of the 19th century ‘dramatically circumscribed African access to forests and forest products that rural people used in their commercial networks, subsistence economies, and cultural life’ (Sunseri 2003:2).

The colonial rulers did this not only to protect the forests for environmental and economic benefits, as was the official cause, but also to prevent forest habitation as a means of social control. Relocating people ‘out into the open’ facilitated agricultural development as people were needed for cash-crop production. Also, the forests in the Rufiji-Kilwa districts had for a long time been used as havens for people in times of conflict, as they also were during the Maji Maji war in 1905–1907.

These historical records make no mention of which ethnic or linguistic groups are included when referring to ‘Rufiji people’. The language of a people seems to have been of less importance in distinguishing them as a group in pre-colonial times. The existence of multilingualism in the region does not give reason to assume the existence of distinct societies to correspond to the different language groups (Becker 2010:99). With colonialism, ethnicity and ‘tribes’ became important in imposing indirect rule. After the rebellions of the late 19th and early 20th centuries, the German colonial power became increasingly interested in the different groups of people. Who were warlike and who not? Whom did they need to keep an extra eye on? We therefore have descriptions of different tribes in German records from the beginning of the 20th century (Schleinitz 1911).

The Ndengeleko are mentioned in these records primarily as inhabitants of what is today the southern part of the district Mkuranga, around Mkamba. At that time, this area was part of the district ‘Daressalam’. They were supposed to number about 43,000, be a quiet but reserved people who were mainly agriculturalists, traders and craftsmen. They also lived in the then district ‘Mohoro’, consisting of the Rufiji delta, the Rufiji plains and the Matuumbi and Magongo highlands as well as the southern part of the Uluguru mountains. Here the Ndengeleko numbered about 16,000. They were, together with the Swahili and

the Zaramo, not considered as any threat to the German administration. In so far as they took part in the Maji Maji war of 1905–07, their resistance was easily suppressed. This is as opposed to the Matuumbi and Ngindo, who were considered hard, warlike and sly and who were only defeated by the Germans with much effort.

A picture of abundance, trade and a densely populated area arises from these historical records, at least until the beginning of the 20th century. This is a different picture from the one that is found when visiting Rufiji at present. The depopulation is supposed to have started after the Maji Maji war, people being forced into the labour market by tax regulations. Migration extended rapidly throughout the whole territory of Tanganyika, including the Rufiji valley (Ilfie 1979:161). There was also famine in the area, in 1917 (Ilfie 1979:269).

Apart from being densely populated, the records give a picture of a region that has been ethnically heterogenic at least since mid-19th century. During the Abushiri rebellion (1888), for example, the entire Rufiji delta was reportedly occupied by Yao ivory and rubber traders, with Rufiji people as their allies (Sunseri 2003). The Mbunga people also had their influence on the region, although reportedly more as slave raiders and grain plunderers.

The language used to communicate in this ethnically and linguistically complex situation was Swahili, a language that had been spreading along the coast for centuries. According to the records of the German colonial rulers, Swahili is understood by all Ndengeleko and came to be widely spoken around the beginning of the 20th century (Schleinitz 1911). The two languages (along with others) have thus co-existed for at least 100 years. Swahili speaking people settled around Kilwa from the early 9th century, possibly due to it being adjacent to the trading network that probably existed on the southern Tanzanian coast at that time (Nurse and Spear 1985:64). It seems likely that the Rufiji area has been involved in this trading network, with its fertile delta and mangrove forests, and not being far from Kilwa. As the different peoples needed to communicate, bilingualism in Swahili and other languages started to emerge and the importance of Swahili grew. The Ndengeleko people are Muslim. Islam spread to Kilwa in the 13th century (Nurse and Spear 1985), but it is unknown to me when the Ndengeleko people became followers of this religion.

We do not know how widespread this bilingualism was among the Ndengeleko. With the heavy promotion of Swahili after independence, and the increased access to education with Swahili as the sole medium of instruction, it is now definitely the dominating language in almost all domains. Ndengeleko has been reduced to a language the parental and in some families only the grand-

parental generation uses, and almost exclusively at home. On top of that, in using their language, speakers frequently code-switch between Ndengeleko and Swahili. Ndengeleko is by no means unique in this respect. Many of the coastal languages of Tanzania face the same situation (Batibo 1992:89).

Interestingly, the Ndengeleko people themselves do not seem to realise this. Or rather, they realise their own linguistic behaviour, but think that it is better in other places. In Kibiti, I am referred to places like Mahege and Mlanzi to find the 'real' Ndengeleko. 'If you go to Mahege, even a 3-year old will speak Ndengeleko to you!' they say. In Mahege, the adults complain about the lack of knowledge of the language that the young generation has, and tell me it is better upriver around Mloka and other villages. In Mloka, however, the villagers refer me back to Kibiti and say this is the place where Ndengeleko is really spoken.

In conclusion, it appears that the Ndengeleko language has been used in a multilingual setting for centuries without being threatened. With the current strong position of Swahili in recent decades, however, the future of the language looks gloomy, as the following sections will show.

2.3 *Methodology for the sociolinguistic survey*

Two methods for collecting data have been used in this survey: open interviews and questionnaires, both briefly described in the following subsections. Gilbert Mworira, from the University of Dar es Salaam, helped to explain the questionnaire to the school children, and also took part in the interviews with villagers. The language used in the questionnaires and in the interviews was Swahili.

2.3.1 Interviews

The interviews were held with small groups of people in the same villages where the questionnaires had been used in schools (see below), plus some additional interviews. The survey was restricted to the Rufiji district as this is where most Ndengeleko live. Interviewees were asked to give estimations of percentages of Ndengeleko people and Ndengeleko speakers in their ward and neighbouring wards. Speakers in this context are people who actually use the language in communication with others and who are more or less fluent in their language use. Those who do not use the language, but can on demand produce some greetings and simple phrases, are regarded as not speaking the language. The reason for not

including these people as speakers is that they most probably cannot be regarded as contributing towards the survival of the language.

Questions were also asked about code switching, about how many children learn the language at present, and the opinions of interviewees about these issues and about the future of the language. The interviews consisted of open questions, where one question leads to another rather than being rigidly structured. There was ample room for discussion within the group.

2.3.2 *Questionnaires*

In four schools around the Rufiji district, a questionnaire consisting of 13 questions was used in grades 5 and 7. When student numbers were small grade 6 was also included. The schools were selected more or less randomly in different parts of the district, but limitations in accessibility also influenced the choice. In Kibiti the questionnaire was only used in grade 5, with the intention of testing the questionnaire. As the questionnaire was not changed after this, the results are comparable with results from other schools and have been included. In general in the district children differ greatly in age, even in the same classroom. This is partly because some children start school late, while others do not know their exact age. The ages of the students in grade 5 ranges from 10 to 18 years, and in grade 7 from 11 to 19 years. Maybe because of this, answers to questions in no case showed any significant difference between grades, and hence these answers have not been split up according to grade or age group in the tables that follow. The villages in which the questionnaire was used are marked (bold) on the map on page 3.

The primary aim of using a questionnaire was to find out more about how many children of Ndengeleko parents learn the language, and what their attitudes are towards this language. Because the study is concerned with Ndengeleko, answers from children of other ethnic background have been omitted from the analysis of intergenerational transmission, competence and the like. They did fill in the questionnaire though, and their answers were very useful to the study as they gave a picture of how mixed the schools are, and hence the population, in the different villages of the Rufiji district.

All children in the selected classes filled the questionnaire. This means there are 310 answers. 215 of these 310 children have at least one parent from the

Ndengeleko community. Of these 215, 170 claim to have Ndengeleko as their L1.⁸ Others know only Swahili, or have another L1, for example Matuumbi, because the other parent is Matuumbi speaking. Depending on the question to be answered, all 215 or only the 170 with Ndengeleko as L1 are taken into consideration, as indicated in the table titles.

The questionnaire was based on questions from similar studies in Tanzania, but was adapted to the aims of the present survey. In summary: except name, gender and age, children were asked about the ethnic belonging of their mother and father respectively, their own knowledge of the L1 and of Swahili, whether they learned Swahili before or after entering school, with whom they use the L1, which language they prefer and what they think about the importance of the L1. Most questions involved ticking, and the last one was open. Here the children were asked to indicate why they think the L1 is important or why they think it is not. Some of the questions, translated into English, are cited in the text on the results.

2.4 *Estimated number of speakers*

In order to assess the present situation for the Ndengeleko language, it is necessary to know more about the number of speakers. The information available in the literature (2.4.1) was confusing, and I decided to attempt an estimation, as outlined in 2.4.2.

2.4.1 Figures in the literature

When it comes to the number of speakers of Ndengeleko, there are only estimations. No questions about language use or knowledge are included in censuses in Tanzania. Previous censuses did however include the question of ethnic belonging, *kabila* in Swahili. According to the 1967 census, the Ndengeleko⁹ population was 145,783 people (total mainland). Further back in time, in 1957 there were 122,941 and in 1948 125,935. This would mean a growth of 16% from 1948 to 1967. Compared to a population growth of 55% for the whole country, this implies that the number of people belonging to the Ndengeleko

⁸ The language of parents and/or community that you grow up with, and that you can speak and understand. Not necessarily the language you learn first or the language in which you have the best competence.

⁹ Including Rufiji, see 1.1.4.

community was on the decrease compared to the total population already in that period (Legère 1992:104).

These numbers do not, of course, say much about competence in Ndengeleko. They are not even very reliable when it comes to ethnic belonging. We know that the ethnic groups along the Tanzanian coast are ambivalent about their linguistic, cultural and ethnic affiliation. Depending on circumstances and the question asked, they might refer to themselves as belonging to different groups (Batibo 1992:92; Legère 1992:103).

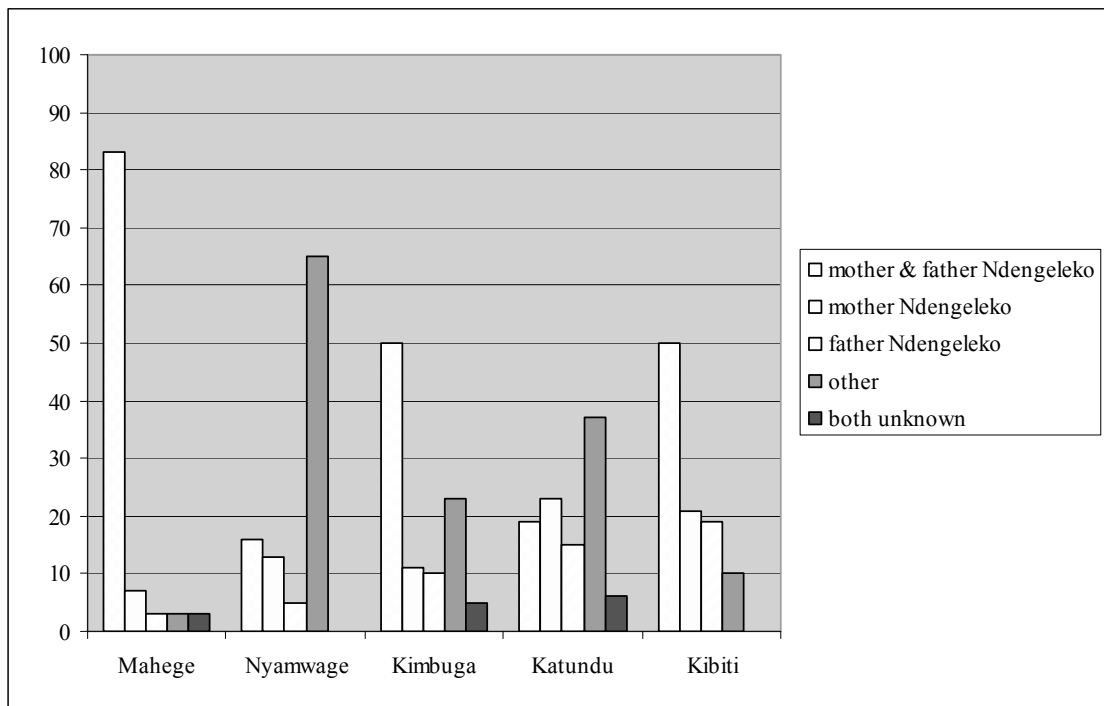
Ethnologue lists a total of 310,000 speakers for Ndengeleko and Rufiji. If these numbers are true, then basically the whole population of the district of Rufiji (203,102 people) and two thirds of Mkuranga (187,428 people) would be Ndengeleko speakers. This is clearly not the case.

The Languages of Tanzania atlas (LoT 2009) of the University of Dar es Salaam reports 109,133 Ndengeleko speakers in Rufiji 2006, and 26,131 speakers in the Mkuranga district. Rufiji as a language is correctly not mentioned in their list of languages.

2.4.2 *Result of estimation*

The methodology chosen for the present estimation was in short: 1) the percentage of people with Ndengeleko ethnic belonging was estimated per ward; 2) these percentages were applied to population numbers according to the 2002 census; and 3) from this result, a percentage per age group was taken to arrive at an estimation of actual speakers. For step 1), answers by interviewees regarding the percentage of Ndengeleko people in their ward and neighbouring wards were used for the estimation. Also, the questionnaire gave additional information on numbers of Ndengeleko people, as it included the question on *kabila*, ethnic affiliation, of the parents. The following information from the children does not always support the estimations made by interviewees:

Table 1 Ethnic background of children in the survey (N=310)



These five villages represent different parts of Rufiji. As we can see, only in Mahege are the percentages of children from homogenous Ndengeleko families more than 80%. In Kimbuga and Kibiti, Ndengeleko are also numerous, although the families are often not homogenous. South of the river, in Nyamwage and Katundu, the picture is truly one of a multiethnic society. Except Ndengeleko, many belong to the Matuumbi and Ngindo, as well as (in smaller numbers) Pogoro and Makonde. These results have been used to lower the percentages of Ndengeleko people arrived at in step 1), in certain areas of the district. I chose not to lower the percentages as much as the results of this questionnaire indicate, in order to also respect the answers of interviewees. This means that if the end result (number of speakers) is not correct, it can be suspected to be rather too high than too low.

In step 2), the percentages arrived at were applied to the population stated for each ward in the 2002 census (Tanzania 2003), resulting in an approximate number of people belonging to the Ndengeleko community. Finally, in step 3), the number of actual speakers within the ethnic community needed to be estimated, as it has already been concluded that not all Ndengeleko speak the language. This has been done by estimating a percentage of speakers per age group, as the 2002 census gives information on age within the district. Here, estimations by interviewees have been combined with the answers from children who estimated their knowledge of the language in the questionnaire. Other factors concerning age

groups have also been taken into consideration, such as, for example, the dynamic spread of Swahili use in the last decades.

My calculations show that the Ndengeleko community is still large in Rufiji, roughly 155,000 people. But Ndengeleko speakers can now be estimated not to exceed 60,000. The same kind of calculation has been applied to the district of Mkuranga, although with much lower percentages for the ethnic community. From the total Mkuranga population of 187,428, roughly 30,000 belong to the ethnic community and 12,000 speak Ndengeleko. Therefore, the total Ndengeleko community is calculated as being 185,000 people, while those assumed to be Ndengeleko speakers number 72,000.

2.5 *Language attitudes*

In this section we will have a closer look at answers from interviews and questionnaires concerning how Ndengeleko speakers regard their language and its future. Speakers' attitudes towards their language are decisive when it comes to the death or survival of a language. If you grow up with the idea that the language you learn from your parents has a low status, it is very probable that you will soon abandon it in favor of the dominating high-status L2, i.e. Swahili in this case.

These attitudes partly have their cause in outside factors. Ndengeleko is not a language that brings socio-economic advantages to the speakers, and many seem to see learning or maintaining the language as a waste of time. Hence, some parents will not make an effort to teach their children this language but encourage them to learn the L2 instead, right from the start.

Ndengeleko is also not a language that enjoys any local or regional status, putting it right at the bottom of the hierarchy of language prestige. This people and their language are frequently looked down upon by other Tanzanians, as confirmed to me in numerous personal communications. The Ndengeleko people picture themselves as uneducated and disfavoured, not unlike other people from the south as described by Becker (2010:111-116). This is also reflected in the fact that many Ndengeleko cease to use the ethnonym when they move to Dar es Salaam, or when they have succeeded in acquiring a high-status job. A contributing factor in this 'assimilation' is that the Ndengeleko are Muslims and often want to be included in the coastal Swahili culture and economic life (Middleton 1992:15).

Although not reflected in their behaviour, the Ndengeleko do pay lip service to their language. In the interviews, village people express pride in their culture and language, and a regret that it is disappearing, as they are convinced it is. They

say that the problem lies with the older generation, which has not made enough effort to pass on the language to the younger one. It is regarded as not within their power to change something about the situation, and it is accepted as a matter of fact that Ndengeleko will die out. Some interviewees do not regret the loss but rather indicate that it is in their interests to abandon their ‘backward’ culture and language in favour of the national language. A majority are, however, very positive about the documentation of the language and enthusiastic about making a contribution as language consultants.

The children answering the questionnaire also appreciate Ndengeleko as L1, even those who barely speak it. The question answered by the pupils read:

12. Is it important to use your L1, such as Ndengeleko?¹⁰

Here answers were given by ticking yes or no. Of the 215 respondents of the questionnaire with at least one Ndengeleko parent, 180 or 84% answered yes. The following and last question of the questionnaire was open:

13. If yes (to the preceding question): list three advantages of continuing to use your L1. If no: explain why.¹¹

The last question is rather abstract and caused difficulties for some of the children. The pupils were asked to give three advantages instead of just an open question, in order to avoid short answers. Many mentioned the aspect of identity, being recognised as an Ndengeleko person, as an important advantage of speaking their L1. They also regard the language as important for the preservation of culture and traditions. It gives them joy to know who they are and where they originate from. Several of the children complain about how their parents have neglected to teach them the L1 although they would like to learn. At the same time many adults complain about the children not knowing the language.

On the other hand, children who do not find Ndengeleko important mentioned the fact that they cannot use it outside the area, that others do not understand it and that Swahili is the language of the nation and should therefore be used instead of other languages. Also interesting in this respect is question 11:

11. Which language do you prefer to speak?¹²

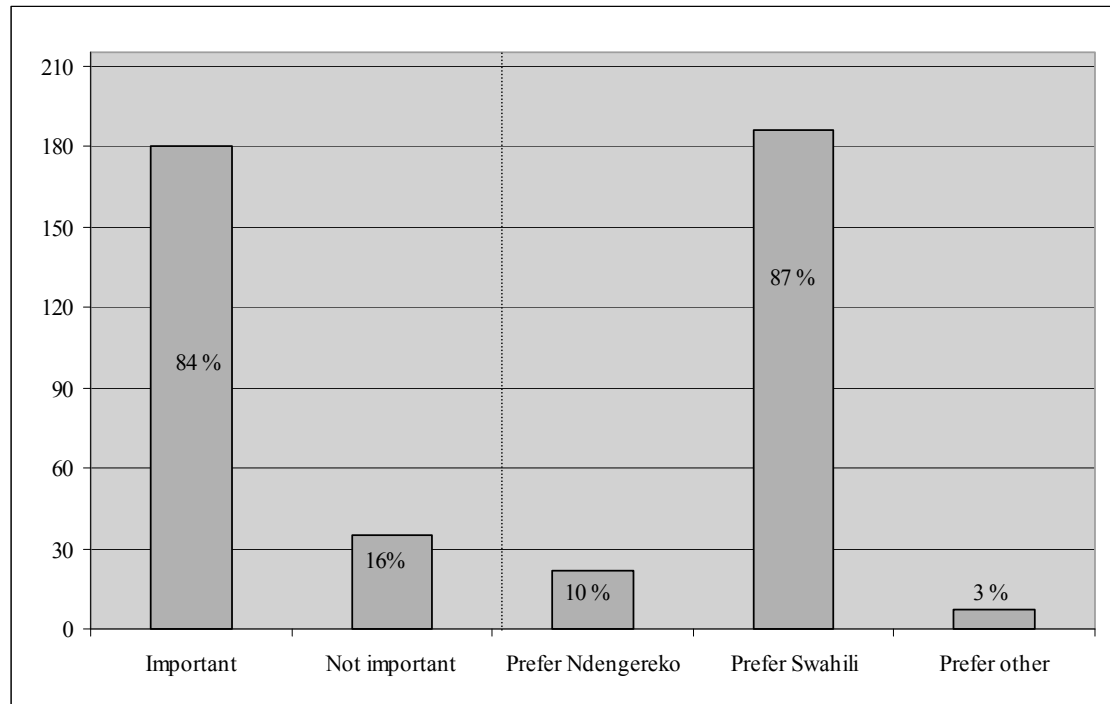
¹⁰ In Swahili: *Je, kuna umuhimu wa kutumia lugha yako ya asili, kama vile Kindengereko?* The term *lugha ya asili* literally means ‘language of origin/ancestry’.

¹¹ In Swahili: *Kama ndiyo; taja faida tatu ya kuendelea kutumia lugha yako ya asili. Kama hapana, eleza kwa nini:*

¹² In Swahili: *Je, unapendelea kuzungumza lugha gani?*

This was an open question. Of the 215 children, 186 prefer Swahili, 22 prefer Ndengeleko and 7 prefer other languages (the language of the other parent and in one case English).

Table 2 Importance of L1, and language preference (N=215)



In conclusion, Ndengeleko is regarded by most as important and worth saving, but in daily life Swahili is preferred as medium of communication. There is pride in one's own language but the usage is given up partly because of the low status given to this group and language by others.

2.6 Intergenerational transmission

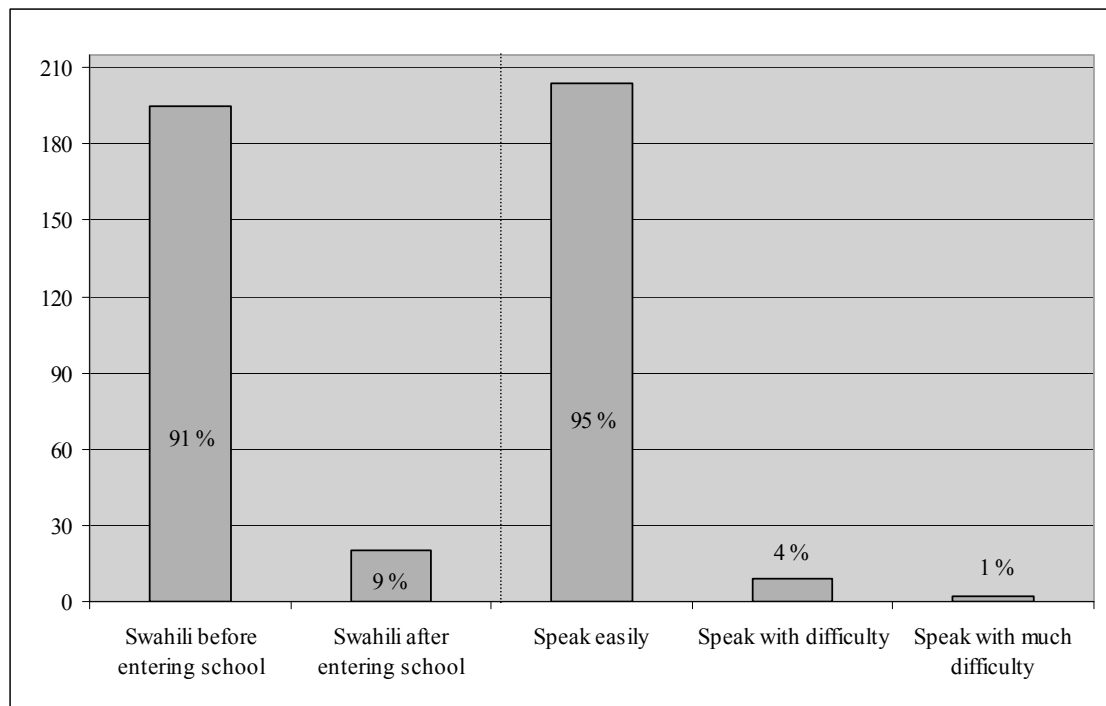
Throughout the area where Ndengeleko is spoken, children learn the language in a very limited way. Almost all children learn Swahili at a very early age, as this is the language of wider communication all around them. Out of all 310 respondents of the questionnaire, only 39 learned Swahili after entering school. More than 87% learnt Swahili before entering school. Taking into account only those children who have at least one parent from the Ndengeleko community, this number is even higher: 91%. In responses to the questionnaire it seems that children of, for instance, Matuumbi parents are more inclined to pass on their language to their children than the Ndengeleko, even though the Matuumbi in this case live outside their core area.

It is very rare indeed to hear children speaking anything other than Swahili to each other. When the children grow older Swahili is absolutely dominant, and secondary school pupils, in or out of school, abandon Ndengeleko completely in speaking with each other. Self-estimation of competence in Swahili is high, as can be expected under such circumstances. The table shows the answers of the 215 children who have at least one Ndengeleko parent.

Question 6: Did you start speaking Swahili: before entering school, after entering school? (answers given by ticking)¹³

Question 7: Can you speak Swahili: with ease, with difficulty, with much difficulty? (answers given by ticking)¹⁴

Table 3 Time of acquisition of Swahili by Ndengeleko children and self-estimation of L2 knowledge (N=215)



Answers on competence in the L1 give a completely different picture, however. A majority of the children who have Ndengeleko as their L1 find it hard to communicate in this language and only 24% claim to speak it with ease. In question 10, they were asked to estimate their competence by ticking. The table shows only the answers of the 170 children who claim to know Ndengeleko. The

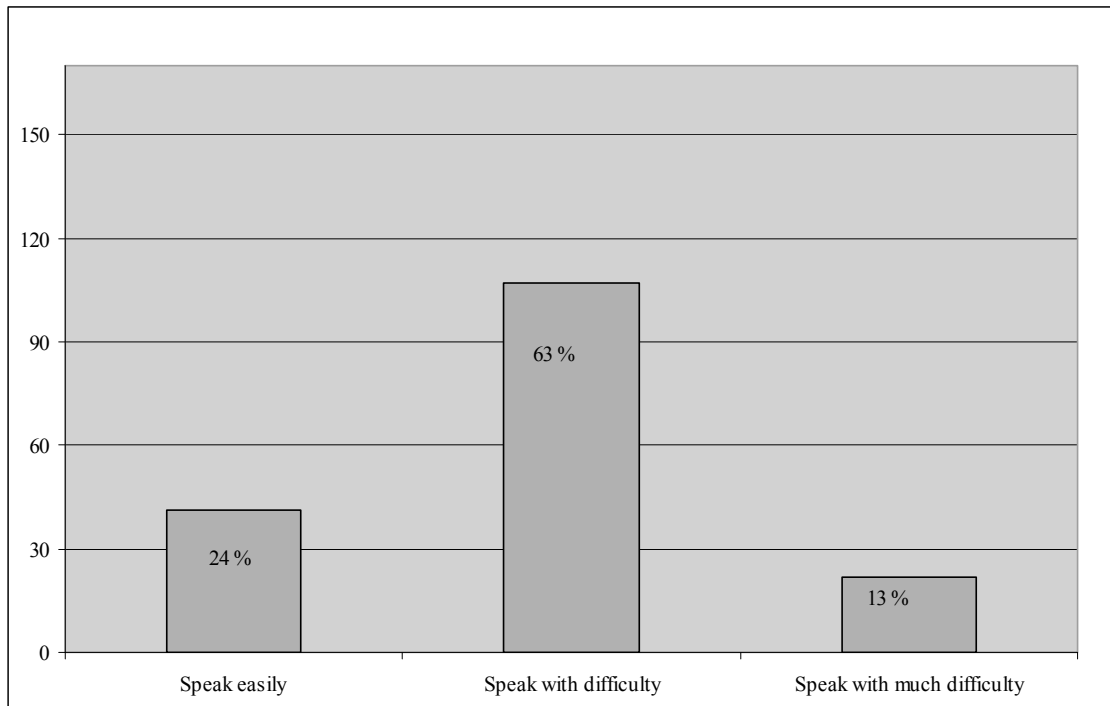
¹³ In Swahili: *Uianza kuzungumza Kiswahili: kabla ya kuingia shuleni, baada ya kuingia shuleni?*

¹⁴ In Swahili: *Je, unaweza kuongea Kiswahili: kwa urahisi, kwa shida, kwa shida sana?*

remainder of the 215 with at least one Ndengeleko parent claim not to know the language at all and have therefore not answered this question.

Question 10: As for now, can you speak and understand this language (referring back to question 8, which was the open question on which L1 they speak): easily, with difficulty, with much difficulty? (answers given by ticking)¹⁵

Table 4 Self-estimation of L1 competence: Ndengeleko (N=170)



41 children or 24% do not experience any difficulties in speaking Ndengeleko, while 129 do to some extent. To summarise this discussion on intergenerational transmission: of 215 children with at least one Ndengeleko parent, 79% or 170 children learn Ndengeleko to some extent, but only 19% or 41 children learn it well. This is a very low number, showing that the language is often not passed on to the following generation, resulting in a rapid decline in language use.

¹⁵ In Swahili: *Kwa sasa, hiyo lugha unaweza kuongea na kuelewa: kwa urahisi, kwa shida, kwa shida sana?*

2.7 *Is Ndengeleko an endangered language?*

In this section the results of the survey will be linked to the criteria for language endangerment as formulated by the UNESCO Ad Hoc Expert Group on Endangered Languages in 2003 (UNESCO 2003) and an attempt will be made to assess the current status of Ndengeleko. This expert group of linguists and language advocates worked in collaboration with UNESCO in order to formulate ways of assessing language vitality and published a set of guidelines, after submitting and discussing these in the International Expert meeting on the UNESCO Programme: Safeguarding of Endangered Languages, March 2003. Their work marks the commitment of UNESCO to the survival of language diversity, as also stressed in the Universal Declaration of Cultural Diversity from November 2001 (UNESCO 2001).

The discussion below does not necessarily follow the ordering of criteria as listed in the UNESCO guidelines mentioned above. I will discuss the factors that in my view most strongly contribute to the endangerment of the Ndengeleko language, and refer to the UNESCO criteria while doing so. All factors are listed in Table 5.

As mentioned before in this chapter, attitudes towards a language are crucial when it comes to the level of endangerment, both from outsiders but most of all from the community itself. The Ndengeleko people are ambivalent when it comes to their language and identity. It is regarded by most as important when asked, but in reality they are rather indifferent to the future of their language. When looking at the UNESCO Factor 8, *Community members' attitudes towards their own language*, the situation of Ndengeleko is equivalent to Degree 2: *Some members support language maintenance; others are indifferent or may even support language loss*.

A negative attitude towards one's language inevitably causes a decline in intergenerational transmission. This is also the case for Ndengeleko, as we have seen. It is of course important for the survival of a language that children of a community learn the L1, and we have seen that they do this to a very limited extent. In some families, parents speak Ndengeleko to their children, but often they do not: exposure to Ndengeleko is restricted to the grandparent-grandchild communication. UNESCO has listed intergenerational language transmission as Factor 1, and Ndengeleko can here be positioned as Degree 3: *Definitely endangered: The language is used mostly by the parental generation and up*.

If language attitudes are a strongly contributing factor to language shift because people cease to teach the L1 to the children, then what is the cause of a

negative language attitude? It has been mentioned in the section on language attitudes that outside factors are very important. That using Ndengeleko does not bring any socio-economic advantages is strongly linked to the situation of minority languages in Tanzania in general. The promotion of Swahili as a national language has been very successful and it has put Swahili on the global map of languages of wider communication. The flipside of the coin is that there is no room for the other 120 or so minority languages¹⁶ of Tanzania. There are no official domains in which they are used, and they do not enjoy any official recognition. In fact, they have been ignored as more or less non-existent until the publication of the Cultural Policy document *Sera ya Utamaduni* (Tanzania 1997). In this document, the minority languages are recognised as an asset to the country.

It is stated, for example, that these languages should be taken as sources when one is looking for vocabulary needed for new domains in Swahili, instead of taking such vocabulary from foreign languages (interesting to note that one of these foreign languages, English, has official status in Tanzania and the minority languages do not). But this policy document has so far not caused any changes in the use of or attitudes towards L1s in Tanzania and no supportive measures have been taken.

Nevertheless, some of the country's minority languages are spoken by millions of people and give their speakers socio-economic advantages in a more local context. They tend to be learnt by people from other areas who move into the community in question to live there. Occasionally, smaller languages also hold such a position, for instance if the area in question is linguistically homogenous, or if the language enjoys regional or local prestige. However, Ndengeleko is not one of these stronger minority languages. As with several other Tanzanian coastal languages, its position is one of low status, and people from other communities moving into the area do not learn it, but rather cause the position of Swahili to become even stronger.

Considering this situation in relation to UNESCO's Factor 7, *Governmental and Institutional Language Attitudes and Policies*, including Official Status and Use', the situation in Tanzania comes close to Degree 2. *Active assimilation: Government encourages assimilation to the dominant language. There is no protection for minority languages.*

¹⁶ Refers to a language that is used by a certain speech community and which is not, or in a limited way, spread to other communities, as opposed to a dominating language. In the Tanzanian context all languages are minority languages except Swahili and English. They are not used in school, media or any other official domain and do not have any official status.

The most important implication of this language policy in terms of language survival is that minority languages are used nowhere in education. In parts of the country where knowledge of Swahili among young children is limited when entering school, it is known that L1s are often used by teachers in lower grades, see for example Petzell (2008); Wedin (2004). This is not allowed but is seen as necessary by the teachers as the pupils would otherwise not understand what is being taught. It is used informally only for explanatory reasons in these cases, and there is no language material or strategy for the transition from L1 to L2 in education. In the Ndengeleko area the L1 is not used at all, as the children are considered to have enough Swahili knowledge to understand what is being taught. As discussed by (Legère 2006), the complete exclusion of L1s from education contributes heavily to language decline. After entering school, the development of L1 competence among the children who have learned this language in early childhood is almost completely brought to a standstill.

As a consequence of this language policy in education, there are no materials for language education and literacy (UNESCO's Factor 6) in Ndengeleko. No orthography has been developed and nothing at all has been written and published in the language. Those who are literate can write something in their language on request and they sometimes also use the language for written notes to each other, although this is rare. In that case they use the Swahili orthography. The language is therefore rated Degree 0 for this factor: *No orthography available to the community.*

Not only is there no orthography, there is no grammatical sketch of this language or any other publications about the language (cf. 1.1.2). It is therefore reasonable to regard the documentation situation as 0 when it comes to UNESCO's Factor 9, *Type and quality of documentation: Undocumented: No material exists.*

As a result of its low status and the lack of incentives to use the language, it is used in fewer and fewer domains. Ndengeleko is spoken mostly at home. It is also used outside, in the marketplace and in the street, when meeting people who also speak the language. As soon as one is unsure about which language to use, as with someone new, Swahili is preferred. But even two Ndengeleko speakers can be heard conversing in Swahili, although greeting and saying goodbye takes place in Ndengeleko. When asked about this they laugh and say they do speak Ndengeleko perfectly well, but did not think about which language they were using.

Because of the lack of knowledge among children, Swahili now also penetrates the home domain. Many parents and certainly grandparents still use the language but children can often be said to be so called receptive bilinguals. Therefore the grown-ups are forced to use Swahili with them, at least partly. The

situation comes closest to degree 3 of UNESCO's Factor 4, *Shifts in domains of language use: Dwindling domains: The language is used in home domains and for many functions, but the dominant language begins to penetrate even home domains.*

There is certainly no response to new domains and media (Factor 5). New areas that continuously emerge in today's global life require new vocabulary and ways of expressing things from the language. If a minority language does not meet these challenges of modernity, it becomes increasingly irrelevant and stigmatised. This is exactly what is happening to Ndengeleko, which is not used in school, nor in new work environments or the media. Swahili loanwords and code switching are used instead. Without doubt the language is inactive in this respect, which is Degree 0: *Inactive: The language is not used in any new domains.*

Last but not least, I would like to touch on Factors 2 (absolute number of speakers) and 3 (proportion of speakers within the total population). Even though this cannot be called a small speech community, with 72,000 competent speakers of Ndengeleko, the language is by no means safe. With all the other factors taken into account, such a relatively large community can shrink to almost zero within a few generations.

Factor 3 takes into account the number of competent speakers in relation to the total population of the ethno-linguistic group. That is, the number of 72,000 speakers compared to the number of 185,000 people referring to themselves as belonging to the Ndengeleko community. This is not even 40% of the total Ndengeleko community: a minority. In UNESCO terms this means *Severely endangered*, Degree 2: *A minority speaks the language.*

The following table presents an overview of the situation of Ndengeleko in terms of the UNESCO factors. There are 5 degrees for each factor (except factor 2, which is an absolute number), 5 being the maximum grade and 0 the lowest.

Table 5 Overview of factors

	Factors	Ndengeleko
1	Intergenerational Language Transmission	3
2	Absolute Number of Speakers	72,000
3	Proportion of Speakers within the Total Population	2
4	Shifts in Domains of Language Use	3
5	Response to New Domains and Media	0
6	Materials for Language Education and Literacy	0
7	Governmental & Institutional Language Attitudes and Policies including Official	2

	Status & Use	
8	Community Members' Attitudes toward Their Own Language	2
9	Amount and Quality of Documentation	0

2.8 *Summary*

Ndengeleko is a language that still has a considerable number of speakers. Nevertheless, as can be concluded when examining the language vitality factors, the future of Ndengeleko is certainly threatened. Taking a second look at the two factors I wanted to give special attention in this study, *Intergenerational language transmission* and *Community members' attitudes toward their own language*, we can now conclude that Ndengeleko has a very low score on both. The language has low status, and as a consequence of this, parents do not teach their children to speak it and frequently do not use it at home. This must be seen as a very heavy threat to the language, as there is no future for a language that is not learnt by the children of the community. Within the foreseeable future Ndengeleko could be lost.

The low status given to the community, in my view, contributes to low self-esteem and low confidence among the Ndengeleko on their own potential. It is not unlikely that this is an aspect of current developmental problems in the area, resulting in an even lower status and picture of 'backwardness' – a vicious circle. Pride and interest in culture and language might strengthen a people and help them more than attempts to assimilate them to the dominating culture, something that has so far not helped the Ndengeleko to be less stigmatised.

When a language is used in fewer and fewer communicative domains, parts of it are bound to die long before the language as a whole does. This can already be noticed in Ndengeleko, with frequent use of loans and even more often code-switching: 'out of 20 words, 8 are Swahili' as one speaker in Mahege put it. The result of this is that parts of the vocabulary of this language are no longer used. Only with much effort can people of the older generation come up with Ndengeleko words long replaced by Swahili counterparts, and these people will soon not be there anymore. This fact, together with a Degree 0 for *Amount and Quality of Documentation*, stresses the urgency of documenting Ndengeleko.

One could argue that as Swahili and Ndengeleko have co-existed in this area for at least two hundred years, there is no reason to believe that they could not do so in the future. But the situation in favour of Swahili has changed dramatically since independence in the 1960s, leaving hardly any space for the L1. The recent

spread of education to all layers of society, with compulsory use of Swahili as the sole medium of instruction, hinders the young generation in expanding their language. It is therefore not unreasonable to assume that this and coming young generations will abandon Ndengeleko in favour of Swahili.

Part II: Phonology

In Part II I analyse phonological aspects of Ndengeleko – phonemes, phonological processes and prosody. Consonants are discussed in Chapter 3, followed by vowels and syllable structure in Chapter 4.

Presentation of data

The examples in the phonology chapters are given in their surface representation. In cases where (morpho-)phonological rules have applied, the underlying form is presented between slashes //. Nouns are presented with their Noun Class Prefix (NCP), and verbs mostly in the infinitive form. Note that zero (\emptyset -) is a possible realization of the NCP. Prefixes and stems are separated by a hyphen. The number of the noun class is included following the translation, e.g. '(cl.1)'. Adnominals are presented in the inflected form in agreement with one of the noun classes. This is indicated by e.g. (of cl.2) following the translation. For each example, speaker initials of the consultant who gave the example in question are provided. A hyphen and a capital letter following the speaker initials refer to the kind of data this example stems from (see section 1.3). Surface representation of tone is marked, but the analysis concentrates on segmental differences.

When reference is made to the phonological system reconstructed for Proto-Bantu, this information is taken from Bantu Lexical Reconstructions, BLR3, which is available online (Bastin and Schadeberg 2003). This database brings together the reconstructions by Meeussen (1967) and Guthrie's Comparative Series (1967/71). It includes reconstructions by other authors, as listed on the webpage. All examples of Proto-Bantu are so-called MAIN reconstructions (Bastin and Schadeberg 2003) – basic reconstructed etymons – unless otherwise noted. When not a MAIN reconstruction, a certain lexeme in Ndengeleko can be related to a VAR (Variant), DER (Derivation) or COMP (Compound) of the MAIN entry. This is indicated following the example. Moreover, it will be noted if the meaning of the Proto-Bantu (PB) item differs from the meaning in Ndengeleko.

3. Consonants

The Ndengeleko consonant inventory shows a high resemblance with the reconstructed Proto-Bantu system, as will be evident in 3.1. This section presents the consonant phonemes with examples and a short discussion on the phoneme where necessary. Possible consonant sequences in Ndengeleko consist of a consonant followed by a glide (CG), or a nasal followed by a consonant (NC). This may also have been the case in Proto-Bantu (Hyman 2003b:49). In Ndengeleko, the combination NCG is also possible.

Consonant glide sequences are described in 3.2. These are followed by nasal consonant sequences in 3.3 with arguments for their analysis as sequences and not units in 3.3.1. The morphophonological processes which underlie NC and NN sequences across morpheme boundaries are the subject of section 3.3.2. In 3.4, we leave synchrony behind and delve into the diachronic processes of spirantization and consonant loss. Section 3.5 concerns the reflexes of PB **c* and **j*, which are often lost in Ndengeleko. It is important to understand the sound changes spirantisation and consonant loss, as they have affected the phonotactics of the language.

3.1 The consonant inventory

In Figure 1, the consonant phonemes of Ndengeleko are presented. The phonetic value of the sounds is given in square brackets when the grapheme used in this thesis differs from the IPA symbol.

	Bilabial		Alveolar	(Alveo-) palatal	Velar	
Stop	p	b	t		k	g
Fricative			s			
Nasal	m		n	ɲ		
Lateral			l			
Glide	w			y [j]		

Figure 1 The consonant phonemes of Ndengeleko

Combinations of nasal and consonant are not included in the phoneme inventory as they are analysed as sequences, and will be discussed in 3.3.

Figure 1 can be compared with the reconstructed inventory for Proto-Bantu in Figure 2:

	Bilabial		Alveolar		(Alveo-) palatal	Velar		
Stop	p	b	t	l/d	c	y/j	k	g
Nasal	m		n		ɲ			
Prenasalized consonants	mp	mb	nt	nd	nc	nj	nk	ng

Figure 2 Reconstructed PB system (Schadeberg 2003b:146)

The correspondence between the two systems is striking, and for most consonants direct; e.g. *ki-bíga* ‘(cooking) pot (cl.7) from PB **bíga*. The reconstructed **d/l*¹⁷ appears as /l/ in Ndengeleko, as in *-lóóta* ‘dream’, PB **dóot*; *-línda* /-linda/ ‘wait’, PB **dind*; *-lola* ‘look’, PB **dòd*; *li-lóba* ‘flower’ (cl.5), PB **dòbà*. The PB consonants **c* and **y/j*¹⁸ are often lost in stem-initial position (see section 3.4). Otherwise, reconstructions with **c* can show up as /s/ as in *-sóka* ‘wash’, PB **còk*. Reconstructions with **y/j* can also correspond to /s/: *-sénga* /-senga/ ‘build’, PB **jèng* and *máási* /maa-si/ ‘water’ (cl.6), PB **jiji*. PB **y/j* can also show up as /y/, *-bóya* ‘come back’, PB **bój*, *moóyo* /mu-oyo/ ‘heart’ (cl.3), **jòjò*. For more on the reflexes of PB **c* and **j* see section 3.5. PB **g* can correspond to Ndengeleko /y/ as in *-yéenda* /yenda/ ‘to go’, PB **gènd*. The Ndengeleko phoneme /w/ in many cases derives from underlying PB **u* or **u*, as for example with *mwíipwa* /mu-ipwa/ ‘nephew’ (cl.1), PB **jipóá* (see section 3.2). Nasals followed by consonants are not analysed as unit consonants in Ndengeleko, but rather as nasal consonant sequences, see section 3.3.1.

On the whole, the Ndengeleko consonant system resembles that of the closely related language Matuumbi (P13) (see section 1.1.1 on the P10 group and the closest relatives of Ndengeleko). The following segmental overview of Matuumbi is presented in Odden (1996:4):

¹⁷ There is disagreement regarding the reconstruction of this phoneme as **d* or **l* (Hyman 2003b:42). Allophonic variation has been suggested: **[d]/_i u* vs. **[l]* /elsewhere (Schadeberg 2003b:146).

¹⁸ Schadeberg (2003b:147) regards **y/j* as allophonic, but states that the question needs re-evaluation. The reconstruction of both **c* and **j* is debated; [s] and [z] are also likely candidates (Schadeberg 2003b:147)

	Labial		Alveolar		(Alveo-) palatal	Velar	
Stop	p	b	t	d		k	g
Sibilant	f	v	s	z	c	j	
Nasal	m		n		ɲ	ŋ	
Lateral			l, r				
Glide	w				y		

Figure 3 Consonant overview of Matuumbi adjusted from Odden (1996)

At first sight, Matuumbi seems to have a richer consonant inventory than Ndengeleko. But as Odden (1996:4) remarks, ‘*v*, *z*, *f*, and *r* appear only in loans’. Moreover, *d* is rare except after a nasal, and occurs primarily in loanwords. Also the affricate *j* seems to appear in loans, and as an allophone of *y*. This is the same in Ndengeleko, and therefore I do not regard [d] and [j] as distinct phonemes in this work.

A difference seems to be the Matuumbi consonant *c*, which Odden (1996) chooses to spell *ch* in the book. This consonant is realised as [tʰ], [s] or [č], and corresponds to Ndengeleko *s* in cognates. It is not clear to me, however, whether *c* contrasts with *s* in Matuumbi. In Ndengeleko, *s* does not have any allophones. Another difference is that Matuumbi reportedly has the phoneme *ŋ*, which does not have phonemic status in Ndengeleko. Moreover, *b* and *d* are realised as implosives when not followed by a nasal in Matuumbi. In fact, *b* is occasionally heard as an implosive [ɓ] in Ndengeleko as well, word-initially. This is heard in the speech of PK, who is likely to be influenced by Matuumbi as she is married to a Matuumbi speaker.

We will now turn to the Ndengeleko consonant phonemes, which are presented in what follows, including any allophones. Care has been taken to include examples with the various consonant phonemes in different positions in the word. The consonant distribution in Proto-Bantu was not restricted by the position within the stem and word in the same way as with vowels (Hyman 2008:328).¹⁹ However, different consonants are more or less frequently occurring depending on position. In Bantu languages, CVC is the canonical root size of verbs and nouns, as introduced in 1.4. Longer stems are extended, i.e. they are derived by affixation, although the extension is not always analysable as to form and meaning (Schadeberg 2003a:71). The stem-initial position – also referred to as C₁ by Guthrie (1967:43) – is marked with (a) in the examples. Intervocalic stem-

¹⁹ In Bantu phonology, there are distributional constraints on underlying vowels depending on their position in the word (Hyman 2003b:45).

internal position – also referred to as C₂ – is marked with (b). Occurrences beyond C₂ and in affixes are marked with (c). The distribution of consonant phonemes in Ndengeleko is summarised in Table 6 at the end of this section.

Stops

The historical processes of spirantisation and consonant loss, which will be discussed in section 3.4, have affected a large amount of words with reflexes of the PB stops preceding the high vowels /i/ and /u/.²⁰ It is possible that lexical items in the language which do have stops followed by /i/ and /u/ have entered the language after these processes took place, although this cannot be determined in the present study.

/p/

1.	a	<i>ku-póta</i>		‘to hit’		AK
		<i>lu-pílili</i>		‘net’	(cl.11)	AK
		<i>mbaṅgápáaṅga</i>	/N-pangapanga/	‘fish, sp’	(cl.9/10)	HK
	b	<i>li-kópa</i>		‘old mat’	(cl.5)	AK
		<i>mbépéta</i>	/N-pepeta/	‘rice snack’	(cl.9/10)	HK
		<i>ntóópe</i>	/mu-toope/	‘stick of axe’	(cl.3)	AK
		<i>ṅgopékópe</i>	/N-kopekope/	‘fish, sp’	(cl.9/10)	HK
	c	<i>pá-no</i>		‘here’	(16.‘this’)	HK
		<i>pa-mwéepe</i>		‘together’		SS

Occurrences of /p/ after C₂ or in suffixes are non-existent in my data.

There is allophonic variation [p~f]²¹ preceding the first degree high vowels. Moreover, instances with [p] in this context are often aspirated. This is interesting as the position preceding first degree vowels /i/ and /u/ is the historical context for spirantisation and consonant loss in the language (see 3.4). Individual variation exists in e.g. the following words.

²⁰ The attentive reader will notice that these processes have not taken place with the NCPs which involve a so called first degree high vowel (see section 4.1). The NCPs have been reconstructed for PB as second degree **ɪ* and **ʊ*. My hypothesis is that the vowel quality of the NCPs changed after the processes of spirantisation and consonant loss took place.

²¹ The speaker AK has variation between [p^h] and [ϕ].

2.	<i>lipíinga~lifíinga</i>	/li-pinga/	‘egg’	(cl.5)	HK/SS~ PK ²²
	<i>lipúungu~lifúungu</i>	/li-pungu/	‘heap’	(cl.5)	AK~HK
	<i>lupyágiilo~ lufyágiilo</i>	/lu-pyagiilo/	‘broom’	(cl.11)	AK~ HK/PK
	<i>mpwálo~ mfwálo</i>	/mu-pwalome/	‘king’	(cl.1)	AK~ HN

The allophone [f] also occurs in loans from Swahili. It is not replaced by [p] in the course of borrowing.

3.	<i>ku-fúta</i>	Sw. <i>kufuta</i>	‘to sweep’		HK
	<i>u-léfi</i>	Sw. <i>ulevi</i>	‘drunkenness’	(cl.14)	AK
	<i>ø-élfu</i>	Sw. <i>elfu</i>	‘thousand’	(cl.9/10)	PK

/b/

4.	a	<i>lu-bóko</i>		‘arm’	(cl.11)	SS
		<i>ku-bínga</i>	/ku-binga/	‘to chase away’		AK
		<i>kibómundwa</i>	/ki-bumundwa/	‘lizard’	(cl.7)	AK
	b	<i>óobi</i>	/ø-ubi/	‘leopard’	(cl.9/10)	AK
		<i>kwóbeela</i>	/ku-obeela/	‘to play’		AK
		<i>mi-góbiko</i>		‘covers’	(cl.4)	AK
	c	<i>baánu</i>	/ba-ndu/	‘people’	(cl.2)	HK
		<i>bályo</i>	/ba-lyo/	‘those’	(of cl.2) ²³	PK
		<i>ku-yángábana</i>		‘to mix’		AK

There is limited allophonic variation [b~β] in this phoneme, which appears to be inter-speaker as well as intra-speaker, e.g. *li-binda* [liβiinda] ‘okra’ (cl.5) for

²² When variations in the pronunciation of a word are possible, the ~ sign between speaker initials indicates which speaker uses which variation. A forward slash indicates that more than one speaker uses the variation.

²³ Meaning this is a demonstrative in agreement with noun class 2.

speakers HK and AK, and *bandu biingi* /ba-ndu ba-ingi/ ‘many people’ (AK). As with the variation [p~f], this appears to be the case preceding first degree high vowels only.

/t/

5.	a	<i>ki-tólo</i>		‘blind person’	(cl.7)	AK
		<i>ku-tíla</i>		‘to fear’		HK
	b	<i>ntóte</i>	/mu-tote/	‘hyena’	(cl.3)	AK
		<i>yíitu</i>	/i-itu/	‘our’	(of cl.4, 8, 9/10)	PK
	c	<i>táya</i>		‘jaw’	(cl.9/10)	SS
		<i>táátı</i>		‘father’	(cl.1a)	AK
		<i>tubii..</i>	/tu-bii/	‘we are’	1pSM- be.PFV	HK
		<i>ku-pógátiya</i>		‘to cause fruit to fall down’		AK

/k/

6.	a	<i>ku-kóonda</i>	/ku-kunda/	‘to like, love’		SM
		<i>lu-kúu</i>		‘navel’	(cl.11)	SS
	b	<i>ku-yíkita</i>		‘to answer’		AK
		<i>i-kóko</i>		‘rats’	(cl.8)	AK
	c	<i>ku-lóŋgi</i>	/ku-longı/	‘in front of’	(cl.17)	AK
		<i>ka-yéelo</i>		‘small winnowing basket’	(cl.12, dim)	AK
		<i>kwóbeka</i>	/ku-obeka/	‘to get lost’		AK

/g/

7.	a	<i>kugólwa</i>	/ku-gulu-a/	‘to wash’		AK
		<i>li-góonŋo</i>	/li-gongo/	‘highland’	(cl.5)	AK
	b	<i>yíga</i>		‘body’	(cl.9/10)	AK
		<i>ku-táaga</i>		‘to throw away’		AK
	c	<i>ga-bíli</i>		‘two’	(of cl.6)	AK
		<i>gááke</i>	/ga-ake/	‘his/her’	(of cl.6)	HK

<i>ku-bólaga</i>		‘to kill’	HK
<i>ku-bónágana</i>		‘to see each other’	HK

Fricatives

The only fricative phoneme in Ndengeleko is /s/. Other fricatives are allophones of stops (i.e. [p~f]).

/s/

8.	a	<i>ku-sútama</i>		‘to squat’		AK
		<i>ma-sápu</i>		‘dirty’	(of cl.6)	AK
	b	<i>pápasa</i>		‘day after tomorrow’		AK
		<i>nkólooso</i>	/mu-kolooso/	‘cashew tree’	(cl.3)	AK
	c	<i>sí-mo</i>		‘one’	(of cl.7)	HK
		<i>sáangɔ</i>	/si-angɔ/	‘my’	(of cl.7)	HK
		<i>ku-lómbólisea</i>		‘to bewail’		TO

Lateral

/l/

9.	a	<i>kulóumba</i>	/ku-lumba/	‘to praise’		AK
		<i>ku-léka</i>		‘to let (go)’		AK
		<i>nkwélome</i>	/mu-kwelome/	‘maternal uncle’	(cl.1a)	AK
	b	<i>ku-tóóla</i>		‘to take’		AK
		<i>lu-kílɪ</i>		‘length of mat’	(cl.11)	HK
		<i>a-lééle</i>		‘infant ones’	(cl.2)	AK
	c	<i>lu-kóko</i>		‘cough’	(cl.11)	AK
		<i>léélo</i>		‘now’		HK

There is allophonic variation with [d] in the noun class 5 prefix, but only in the following two lexemes:

10.	<i>lí-iso~dí-iso</i>	‘yesterday’	(cl.5)	AK/SS/TN~ HK
	<i>lii-sána~díi-sana</i>	‘day before yesterday’	(cl.5)	AK~ HK

In loans from Swahili, [d] is either retained, or is replaced by [l].

11.	<i>lidúungu</i>	/li-dungu/	Sw. <i>dungu</i>	‘farmhouse’	(cl.5)	HK/TO
	<i>u-lúfi~</i>		Sw. <i>uduvi</i>	‘shrimp’	(cl.14)	AK~HK/
	<i>u-dúfi</i>					HN
	<i>li-dalája</i>		Sw. <i>daraja</i>	‘bridge’	(cl.5)	HK

The phone [d] otherwise only occurs in the NC sequence /nd/ (see section 3.3).

Glides

The glides /y/ and /w/ in Ndengeleko resemble vowels, in their acoustic and articulatory properties, but cannot form the nucleus of a syllable. Apart from the phonemes /y/ and /w/, the same two sounds are the result of glide formation in the language. Phonetically they are the same, and will be represented by the same graphemes.

/y/

This phoneme is represented by [j] in the International Phonetic Alphabet. I have chosen the symbol that the speakers are used to for this sound, following Swahili orthography and the widespread Africanist usage (Clements 2000:124).

12.	a	<i>ku-yígala</i>		‘to close’		AK
		<i>u-yóm̩</i>		‘drought’	(cl.14)	AK
	b	<i>ku-báya</i>		‘to count’		SM
		<i>li-póyo</i>		‘hole’	(cl.5)	AK
	c	<i>yáambi</i>	/yambi/	‘new’		AK
		<i>yó-no</i>		‘this’	(of cl.1)	AK
		<i>ma-yígíyo</i>		‘words’	(cl.6)	AK

/y/ has the allophone [dʒ], written as *j*, which seems to occur in free variation, as in *-yima/-jima* ‘stand, stop’. The sound is often retained in borrowings, as in *li-dalája* ‘bridge’ from Swahili *daraja*.

/w/

13.	a	<i>ki-wéte</i>		‘lame person’	(cl.7)	AK
		<i>ku-wála</i>		‘to wear’		AK
	b	<i>a-lwáwa</i>		‘women’	(cl.2)	HK
		<i>lu-úwa</i>		‘open space’	(cl.11)	SM

All instances of word-initial [w] are due to glide formation, e.g. *wáangu* /u-angu/ ‘my’ (of cl.1, 3, 14) (see also section 3.2).

Stem-internally, /w/ is often part of a consonant + glide sequence; this will be further discussed in section 3.2.

Nasals

Ndengeleko has the nasals /m/, /n/, and /ɲ/.

/m/

14.	a	<i>a-mélei</i>		‘parents’	(cl.2)	AK
		<i>kaméembe</i>	/ka-membe/	‘small fly’	(cl.12, dim)	AK
	b	<i>ku-lóma</i>		‘to bite’		HK
		<i>ɲgímíkímí</i>	/N-kímíkímí/	‘deaf person’	(cl.9/10)	AK
	c	<i>ma-úúta</i>		‘oil’	(cl.6)	HK
		<i>máau</i>		‘mother’	(cl.1a)	AK

/n/

15.	a	<i>mwáána</i>	/mu-ana/	‘child’	(cl.1)	HK
		<i>lí-ína</i>		‘name’	(cl.5)	SS
	b	<i>a-nálóome</i>		‘men’	(cl.2)	HK
		<i>mu-náni²⁴</i>		‘on top’	(cl.18)	AK
	c	<i>néenga</i>	/nenga/	‘I/me’		AK
		<i>nási</i>		‘coconut’	(cl.9/10)	AK

²⁴ This can also be *nnáni*, due to optional morpho-phonological processes (see 3.3.2).

/ɲ/

16.	a	<i>ku-máɲa</i>		‘to know’		AK
		<i>u-bíɲa</i>		‘sickness’	(cl.14)	AK
	b	<i>ku-ɲéɽka</i>		‘to sneak away’		AK
		<i>li-ɲóka</i>		‘big snake’	(cl.5, aug)	AK
	c	<i>ɲóɔŋga</i>	<i>/ø-ɲɔŋga/</i>	‘father’s sister’	(cl.1a)	AK
		<i>ɲáái</i>		‘who?’		AK

The phoneme /ɲ/ occurs stem-initially. This can for example be seen in the plural of *ɲóɔŋga* /ø-ɲɔŋga/ ‘father’s sister’ (cl.1a) in 16c, which is *aká-ɲóɔŋga* (cl.2a). Phonetic [ɲ] can also be the result of desyllabification and glide formation; *ɲúúma* /ni-uma/ ‘I come from’. This will be written *ny*, i.e. *nyúúma*, to more easily see that there is a subject marker involved in this case.

Table 6 summarises the consonant phones in Ndengeleko, with their distribution. In the table, phones which are not phonemes are presented in their phonetic representation between square brackets []. Parentheses (x) indicate marginal occurrence.

Table 6 **The distribution of consonant phones in Ndengeleko**

	Word-initial	Stem-initial C₁	Stem-internal C₂
p	x	x	(x)
b	x	x	x
[β]	-	(x)	-
t	x	x	x
[d]	(x)	loans	-
k	x	x	x
g	x	x	x
[f]	-	(x)	loans
s	x	x	x
[ʃ] ²⁵	-	-	loans
[dʒ]	loans	loans	loans
m	x	x	x
n	x	x	x
ɲ	x	x	x
[ŋ] ²⁶	-	(x)	(x)
l	x	x	x
y	x	x	x
w	-	x	x

This table shows us that all consonant phonemes can occur in C₁ and C₂. It also shows which consonants are not phonemes, with their limited distribution. The phoneme /w/ does not occur word-initially. In this position, [w] is always the result of glide formation (see section 4.6.1). All of the consonant phonemes can also occur beyond C₂, although the use of *p*, *b*, *t*, *g*, and *s* is limited to a few lexemes. This is in line with the distribution of consonants as reconstructed for Proto-Bantu (Hyman 2008).

3.2 *Consonant glide (CG) sequences*

In Bantu languages the glides [y] and [w] in consonant glide sequences are typically derived from underlying vowels (Hyman 2003b:55). This morpho-phonological process is called glide formation and will be further described in 4.6.1. Stem-initially and stem-internally, however, CG sequences occur which do not alternate with a vowel. The CG sequences often stem from the reconstructed

²⁵ The phone [ʃ] occurs in a few loans and is not an allophone.

²⁶ Most instances of [ŋ] are the result of morpho-phonological processes, as in *ɲɲéni* ‘visitor’ (cl.1), underlyingly /mu-geni/. See section 3.3.2 for more on this.

sequences of consonant plus vowels (CVV) in PB (Meeussen 1967:82). These sequences have not been retained in Ndengeleko, although new vowel sequences have entered the language (see section 4.5.1). Instead, the first vowel in such sequences corresponds to a glide. The following combinations are possible. Where the PB form is known this is included in the table.

Table 7 CG sequences, morpheme-internal

CG	Ndengeleko		Proto-Bantu	English		Speaker
<i>py</i>	<i>ku-pyóya</i>		* <i>piò</i> ‘be hot’	‘to heat up (food)’		AK
	<i>ku-pyágila</i>		* <i>piagid</i>	‘to sweep’		AK
<i>pw</i>	<i>mpwálo</i>	/mu-pwalome/		‘chief, king’	(cl.1)	AK
	<i>mbwáa</i>	/N-pwaa/	* <i>bóà</i>	‘dog’	(cl.9/10)	HK
<i>bw</i>	<i>ki-imbwi</i>		* <i>jimbói</i>	‘hyena’	(cl.7)	AK
	<i>líi-bwe</i>		* <i>bòè</i>	‘stone’	(cl.5)	HK
<i>ty</i>	<i>kutyáanga</i>	/ku-tyanga/		‘to walk’		AK
	<i>kutyáamwa</i>	/ku-tyamwa/	* <i>tiamod</i>	‘to sneeze’		AK
<i>tw</i>	<i>ka-ńóńotwa</i>			‘small bee’	(cl.12, dim)	AK
	<i>mú-twe</i>		* <i>tóè</i>	‘head’	(cl.3)	AK
<i>kw</i>	<i>kukwéela</i>	/ku-kwela/	* <i>kóéd REF</i>	‘to climb’		AK
	<i>lukwíli</i>	/lu-kwíli/		‘dwarf mongoose’	(cl.11)	AK
<i>gw</i>	<i>líi-yágwá</i>			‘lung’	(cl.5)	TN
<i>lw</i>	<i>kulwáala</i>	/ku-lwala/	* <i>dóad</i>	‘be ill’		AK
<i>mw</i>	<i>ku-kámwa</i>			‘to hold’		AK
<i>nw</i>	<i>nkánwa</i>	/mu-kanwa/	* <i>nòà</i>	‘mouth’	(cl.3)	TN
<i>ńw</i>	<i>ku-ńwáa</i>		* <i>nyó</i>	‘to drink’		AK
	<i>ńwíli</i>	/mu-ńwíli/	* <i>júdí</i>	‘hair’	(cl.3)	AK

CG combinations are not frequent, not more than four examples of each are found in the data. The CG *ky* is also possible but appears to always stem from glide formation. The adverb *kyóugú* ‘behind’ is the only example without a prefix, although there might be an underlying class 7 prefix here as well. The sequence *gy* is not found in the data.

3.3 Nasal consonant (NC) sequences

The label NC is used for combinations of a nasal and an obstruent consonant. It should be noted that these are sequences in the surface representation. Many NC sequences derive through morpho-phonological processes where prefixes and

stems are involved. Other NC sequences occur morpheme-internally, as we shall see.

The nasal part of a NC sequence is homorganic and takes on the place of articulation of the following consonant. N+b is therefore [mb], N+g is [ŋg]. All NC sequences in Ndengeleko are analysed here as sequences of two units, not as pre-nasalised consonants. The analysis as one unit, with a syllable break before a nasal cluster, is traditionally the most preferred one for Bantu languages (Hyman 2008:328). However, for reasons outlined below, the NC sequence analysis is preferred for Ndengeleko. Nasal consonant clusters are consequently not pre-nasalised consonants and are thus not included as such in the consonant phoneme inventory. This is in line with work by Downing (2005), and implies an analysis of N in Coda position in syllables.

To illustrate the discussion below, the following table presents the distribution of NC sequences, following the pattern of the consonants as given in Table 6. The NC sequences that occur in the language are listed in the first column. The following columns show their occurrence across a morpheme boundary, and in stem-initial and stem-internal/intervocalic position.

Table 8 The distribution of nasal consonant sequences in Ndengeleko

	Across morpheme boundary	Stem-initial	Stem-internal
<i>mp</i>	x	-	-
<i>mb</i>	x	-	x
<i>nt</i>	x	-	-
<i>nd</i>	x	-	x
<i>ŋk</i>	x	-	-
<i>ŋg</i>	x	-	x
<i>ns</i>	x	-	-
<i>nz/nj/ns</i>	x	-	x

NC sequences do not generally occur stem-initially, in contrast with the consonants in Table 6. As described below, this is one reason not to regard NC sequences as unit consonants. Table 8 also shows us the difference between voiced and voiceless NC sequences. The voiced, stem-internal NC sequences are underived, i.e. no morpheme boundary separates these:

mb

17.	<i>lipéembe</i>	/li-pembe/	‘horn’	(cl.5)	AK
	<i>oómba</i>	/ø-omba/	‘fish’	(cl.9/10)	HK
	<i>beémbe</i>		‘they’		HK

nd

18.	<i>kyúundo</i>	/ki-undo/	‘joint’	(cl.7)	AK
	<i>ntéende</i>	/mu-tende/	‘date palm’	(cl.3)	AK
	<i>ku-líndula</i>		‘to guard’		AK

nz

There are two variant pronunciations to this NC sequence: [nj] and [ns].

19.	<i>kigáanza</i>	/ki-ganza/	‘palm of hand’	(cl.7)	TN
	<i>agóónsike</i>	/a-gonz-ike/	‘s/he has lied down’		PK
	<i>ngóonji</i>	/N-konzi/	‘fingers’	(cl.10)	HK

According to the informant AK, [nj] is how younger speakers pronounce the sound. It is, however, also used by some older speakers, which might be due to regional differences. The allophone [ns] also occurs, apparently depending on the speaker and context. This is especially the case preceding the perfective suffix *-ike*, as in *-kánsike* ‘have broken’.

ŋg

20.	<i>kuyóŋga</i>	/ku-yonga/	‘to suck’		AK
	<i>kibóŋgi</i>	/ki-bŋgi/	‘forehead’	(cl.7)	TN
	<i>wéŋga</i>	/wenga/	‘you (sg)’		AK

3.3.1 *The analysis of NC as sequences*

The following arguments underlie the analysis of NC as sequences in Ndengeleko²⁷:

²⁷ There are other arguments which have been shown to hold for other Bantu languages. For example, pre-NC compensatory lengthening has traditionally been analysed as a counter-

1. Morpheme boundary

All NC sequences which are not stem-internal, are derived, meaning there is a morpheme-boundary between N and C, as shown in the examples (21). Table 8 showed the limited distribution of all NC sequences. They cannot occur in stem-initial position, as other consonant phonemes can.²⁸ The morpho-phonological processes involved for the data in 21 are described below in section 3.3.2.

21.	<i>nkébe</i>	/mu-kebe/	‘mug’	(cl.3)	HK
	<i>mbépéta</i>	/N-pepeta/	‘rice snack’	(cl.9/10)	AK
	<i>nzápu</i>	/N-sapu/	‘dirty’	(of cl.8, 9/10)	AK
	<i>ηηóumba</i>	/mu-gumba/	‘barren woman’	(cl.1)	AK

The restriction in the distribution of NC sequences was present already in Proto-Bantu (Schadeberg 2003b:147). One could propose that the voiced, stem-internal NCs are pre-nasalised consonants and that the voiceless NCs are not, based on the fact that they are the only ones that can occur stem-internally, and based on the fact that they are not derived. One of the problems with this is the underived *nz* sequence with the allophones [nj] and [ns]. The allophone [ns] is the only NC sequence with a voiceless obstruent which can occur stem-internally.

22.	<i>kugóonza~kugóonja~kugóonsa</i>	/ku-gonza/	‘to lie down’		AK~SS ~SM
	<i>lukóonzi~lukóonji~lukóonsi</i>	/lu-konzi/	‘finger’	(cl.11)	AK/PK~ HK~HN
	<i>áánzu~áánju~áánsu</i>	/ø-anzu/	‘firewood’	(cl.9/10)	AK/HK~ SM~HN

argument to the NC sequence analysis. This has effectively been argued against by Downing (2005:186-190).

²⁸ There are a few exceptions in the data: *ki-ndángwála* ‘stool’ (cl.7), *ki-ndóólú* ‘squirrel’ (cl.7), *lungóongu* /lu-ngongu/ ‘early morning’ (cl.11). It is likely that these nouns have been reanalysed in class 7 and 11, and that they include a class 9/10 prefix. Moreover, there is a well-known exception in Bantu languages and also in Ndengeleko in the noun *múú-ndu* /mu-ndu/ ‘person’ (cl.1), which derives from the loss of root-initial **ji* in **jintu* ‘person, thing, entity’, according to Hyman (2003b:50).

The NC sequence *ns* also occurs word-initially²⁹, across a morpheme boundary. One would have to analyse this NC as a pre-nasalised consonant stem-internally and as a NC sequence word-initially, which is not an analysis preferred here.

2. NC blocks imbrication.

Ndengeleko has a number of perfective suffixes with the same TAM function, as described in section 10.8.3. The selection of suffix is based on the morpho-phonological properties of the verb stem. Polysyllabic stems ending in a short vowel plus consonant undergo a process known as *imbrication* (Bastin 1983) (see 10.8.3). In short, this means they take a suffix *-iCe*, whereby C is the last consonant of the stem. This is illustrated in Table 9 (a). Polysyllabic stems which end in a heavy syllable take a suffix *-i* or *-ike*, and there is no imbrication. The process hence does not take place when the last vowel is long in the CVV syllable in (b). Important for the argumentation here is that there is no imbrication when a short vowel is followed by a NC sequence (c). This is because the nasal belongs to the coda of the CVN syllable. Imbrication is not blocked by a CG sequence (d). CG sequences are syllabified in the onset, in contrast with NC sequences (see section 4.4 on syllable structure). Syllables are separated by a dot in the following table, and heavy syllables are bolded.

Table 9 NC sequences block imbrication

	Verb base	English	Perfective	
a)	<i>-kó.lo.g-a</i>	‘stir’	<i>-kólw-ii-g-e</i> ³⁰	HN
	<i>-kóm.ba.l-a</i>	‘be thin’	<i>-kómb-ii-l-e</i>	AK
	<i>-né.ne.k-a</i>	‘put on fire’	<i>-nén-ii-k-e</i>	HN
b)	<i>-líŋ.gaa.n-a</i>	‘be enough’	<i>-líŋgaan-i</i>	TO
c)	<i>-ká.laŋ.ga</i> / -kalang-a/	‘fry’	<i>-káláŋg-i</i>	HK
	<i>-pó.moon.da</i> / -pòmund-a/	‘beat’	<i>-pómónd-ike</i>	AK/ SM
d)	<i>-té.le.k-w-a</i>	‘be cooked’	<i>-tél-ii-kw-e</i>	HK

This is an argument not to consider *ŋg* in *-káláŋg-* ‘fry’ or *nd* in *-pómónd-* a single

²⁹ The *ns* across morpheme boundary, without allophones, contrasts with *nz*, which has the allophone [nj] (see section 3.3.2).

³⁰ The last stem vowel *o* in the root *-kolog-* glides to *w* when the suffix vowel *i* is imbricated.

consonant, in the same way as *g* in *-kolog-* ‘stir’. If it was, the expected form after imbrication of *-iCe* would be **-kalinge* and **-pominde*, respectively. The syllable in CVV in (b) equals the syllable in CVN in (c) in weight.

3.NC is not always homorganic

There is further evidence from the morpho-phonology of nasal consonant interactions. The rules which reduce *mu-* and *N-/ni-* prefixes to homorganic nasals or geminate nasals (see section 3.3.2) sometimes fail to apply in their entirety. For instance, the noun *ηκόσηγυ* /*mu-kũngũ*/ ‘pan’ has also been recorded as *mkóσηγυ* ‘pan’ (cl.3, HK). If the NCs were to be analyzed as prenasalized consonants, the nasal would be expected to always have the same place of articulation as the stop, and not show this kind of variation.³¹

3.3.2 *The morpho-phonology of NC and NN sequences across a morpheme boundary*

When prefixes including a nasal – the *mu-* and *N-/ni-* prefixes – are combined with a stem-initial consonant, in a noun or verb form for example, different processes take place depending on the structure of the morpheme with the nasal. Similar processes take place in closely related Matuumbi, as described by Odden (1996). The input to these processes is the prefix, as presented in the top row of Table 10, combined with the stem-initial consonant, presented in the first column. The following NC and NN sequences form the output of the processes:

³¹ Apart from these arguments, the Ndengeleko data suggests that a *mu-* prefix can only undergo reduction preceding a single consonant, e.g. *mpóngoti* /*mu-pongoti*/ ‘in the bush’ (cl.18), and not preceding a NC sequence. This would need to be further tested, however, as the data does not include sufficient examples. The context only occurs with word-initial NCs, preceded by for example the locative *mu-*. One example is *múũngobo* /*mu-ngobo*/ ‘in the banana (stew)’ (cl.18), whereby *ngóbo* /*N-kobo*/ is a noun of cl.9/10. The reduction of *mu-* appears to be blocked by the NC. This is difficult to use as an argument, however, as reduction of the locative prefix is optional, i.e. it often remains intact in the data even with single consonants. Another tentative example of the blocking of *mu-* reduction is seen in *munséembe* /*mu-nsembe*/ ‘boy’, which has the NCP of class 1 *mu-* added to a noun (without any function in the language today) *?nsembe* /*mu-nsembe*/, which appears to have a noun class 1 or 3 prefix. The blocking of *mu-* reduction in Mozambican Ngoni (Kroeger 2009) and Matuumbi (Odden 1996:142) appears to be subject to different conditions than in Ndengeleko. Odden includes a discussion on the cognate word *muũncheembe* in Matuumbi.

Table 10 Input and output to the morpho-phonological processes

Stem-initial consonant	<i>mu</i> -prefix	<i>N-/ni</i> -prefix
p	<i>mp</i>	<i>mb</i>
b	<i>mm</i>	<i>mb</i>
t	<i>nt</i>	<i>nd</i>
k	<i>ɲk</i>	<i>ɲg</i>
g	<i>ɲɲ</i>	<i>ɲg</i>
s	<i>ns</i>	<i>nz</i>
l	<i>nn</i>	<i>nd</i>
m	<i>mm</i>	<i>m</i>
n	<i>nn</i>	<i>n</i>
ɲ	<i>ɲɲ</i>	<i>ɲ</i>
w	<i>ɲɲw</i>	<i>ɲgw</i>
y	<i>ɲɲ</i>	<i>ɲj, nz</i>

The NC and NN sequences are exemplified here with nouns:

Table 11 Examples of NC and NN sequences

NC/ NN	Noun	Underlying	English		
mp	<i>mpóŋga</i>	/mu-pɔŋga/	‘rice plant’	(cl.3)	HK
mb	<i>mbotipóti</i>	/N-putiputi/	‘bat’	(cl.9/10)	AK
mm	<i>mmáya</i>	/mu-baya/	‘bad person’	(cl.1)	AK
nt	<i>ntóte</i>	/mu-tote/	‘hyena’	(cl.3)	AK
nd	<i>ndáka</i>	/N-taka/	‘filth’	(cl.9/10)	HK
nn	<i>nnála</i>	/mu-lala/	‘leaf’	(cl.3)	AK
ɲɲ	<i>ɲɲáŋgo</i>	/mu-lyango/	‘door’	(cl.3)	AK
ɲk	<i>ɲkóóŋgo</i>	/mu-kongo/	‘tree’	(cl.3)	HK
ɲg	<i>ɲgalangála</i>	/N-galangala/	‘cheetah’	(cl.9/10)	HK
ɲɲ	<i>ɲɲáŋga</i>	/mu-ganga/	‘healer’	(cl.1)	AK
ns	<i>nséŋgo</i>	/mu-sengo/	‘home’	(cl.3)	HK
	<i>nsíka</i>	/mu-sika/	‘waist beads’	(cl.3)	AK
nz [nz/ɲj]	<i>nzáti</i>	/N-sati/	‘buffalo’	(cl.9/10)	HK

The sequence *ns* in the table differs from [ns] as an allophone of morpheme-internal *nz* (see section 3.3). The *ns* sequence is always found across a morpheme-boundary.

Further examples of the different NC and NN sequences will be given below, for each set of prefixes.

The mu- prefix

The outcome of the morpho-phonological processes depends on the stem-initial consonant. First, the processes applying when any of the *mu-* prefixes is followed by a stem with an initial voiceless consonant are presented. Processes with stem-initial voiced consonants are more complex and will follow.

Stem-initial **voiceless** consonants:

1. The vowel *u* of the prefix is dropped, e.g: *mu-kóŋgu*³² > *m-kóŋgu* ‘pan’ (cl.3).
2. Regressive place assimilation of the prefix *m-* takes place; the nasal takes the same place of articulation as the noun stem initial consonant: *m-kóŋgu* > *ŋ-kóŋgu*.

This is illustrated here with examples from the different *mu-* prefixes.

a) 1NCP + voiceless stem-initial C

The noun class prefix for class 1 is *mu-*, as evidenced by (very few) anomalous lexemes where the morpho-phonological processes do not apply, e.g. *muíndu* /mu-ndu/ ‘person’ (cl.1). Otherwise, the application of the processes is obligatory. In nouns with stem-initial vowels, *mu-* glides to *mw-*, e.g. *mwíinza* /mu-inza/ ‘girl’ (cl.1). The underlying stem of the nouns becomes evident in their plural form, with the class 2 prefix *a-*.

Table 12 The prefix *mu-* in noun class 1 with stem-initial voiceless consonant

Ndengeleko	Underlying	English		Plural	
<i>mpíndo</i>	/mu-píndo/	‘parent’	(cl.1)	<i>a-píndo</i>	AK
<i>nkíba</i>	/mu-kíba/	‘poor person’	(cl.1)	<i>a-kíba</i>	SM
<i>nsómba</i>	/mu-sómba/	‘fiancee’	(cl.1)	<i>a-sómba</i>	AK

b) 3NCP + voiceless stem-initial C

The noun class prefix of class 3 is also *mu-*. There is one lexeme where the morpho-phonological processes do not apply: *mú-twe* ‘head’ (cl.3). As in class 1, the processes are otherwise obligatory. In nouns with stem-initial vowels, *mu-*

³² The underlying form is /mu-kongu/ (HK). The plural in class 4 is *mikóŋgu* /mi-kongu/ ‘pans’.

glides to *mw-*, e.g. *mwáanza* /mu-anza/ ‘journey’ (cl.3). The underlying stem of the nouns is again evidenced in their plural form, with the class 4 prefix *mi-*.

Table 13 The prefix *mu-* in noun class 3 with stem-initial voiceless consonant

Ndengeleko	Underlying	English		Plural	
<i>mpúko</i>	/mu-puko/	‘bag’ (Sw)	(cl.3)	<i>mi-púko</i>	AK
<i>ntéela</i>	/mu-teela/	‘tree’	(cl.3)	<i>mi-téela</i>	AK
<i>ŋkébe</i>	/mu-kebe/	‘mug’	(cl.3)	<i>mi-kébe</i>	HK
<i>nsígo</i>	/mu-sigo/	‘load’	(cl.3)	<i>mi-sígo</i>	AK
<i>nsápwa</i>	/mu-sapwa/	‘corridor’	(cl.3)	<i>mi-sápwa</i>	AK
<i>ŋkwáanda</i>	/mu-kwanda/	‘aardvark’	(cl.3)	<i>mi-kwáanda</i>	AK

c) 1OM + voiceless stem-initial C

When a singular animate object is coded on the verb, the noun class 1 object marker *mu-* is used.³³ With this morpheme, the application of the morpho-phonological processes is obligatory.

23. *kumpála múúndu*

ku- mu- pal -a mu- ndu
 15NCP- 1OM- look.for -FV 1- person
 ‘to look for a person’ (HK-E)

24. *bantángike*

ba- mu- tang -ike
 2SM- 1OM- know -PFV
 ‘They know him/her.’ (AK-E)

25. *uŋkéma jaái?*

u- mu- kem -a jaai
 2sSM-1OM- call -FV who
 ‘Who are you calling?’ (HK-E)

d) 2pOM + voiceless stem-initial C

The object prefix marking second person plural also has the form *mu-*, and morpho-phonological processes apply obligatorily.

³³ This is the case even if the noun with animate referent is in a noun class other than 1 (see Chapter 7 on animacy).

26. *bampála mwée?*
 ba- mu- pal -a mwee
 2SM- 2pOM- look.for -FV you (pl)
 ‘Are they looking for you (pl)?’ (HK-E)

27. *ankéma mwée*
 a- mu- kem -a mwee
 1SM-2pOM- call -FV you (pl)
 ‘S/he is calling you (pl).’ (HK-E)

e) 2pSM + voiceless stem-initial C

Unlike the second person plural object prefix, the second person plural subject marker is optionally affected by the morpho-phonological changes. In the following, the first phrase occurs with both forms (full form and reduced form). This does not mean that the other examples are only possible in one form, just that the variation has not been tested. The optionality for the second person plural subject prefix and the locative prefixes (see below) is also attested in Matuumbi (Odden 1996:79).

28. *mwéénga nteenda/muteenda kiili?*
 mwenga mu- tend -a kiili
 you (pl) 2pSM- do -FV what
 ‘What are you (pl) doing?’ (SS-E)

29. *mkeekinya?*
 mu- keekini -a
 2pSM-be.fine -FV
 ‘How are you (pl)?’ (AK-E)

30. *maná nkómiile*
 mana mu- komiile
 after 2pSM- grow.up.PFV
 ‘When you (pl) grow up.’ (AK-E)

f) Locative + voiceless stem-initial C

The reduction of the locative class 18 NCP as well as the class 18 subject marker *mu-* is optional.

31. *mpóngoti /mu-pungoti/* ‘in the forest’ (cl.18) AK

We now turn to the *mu-* prefixes followed by a stem with an initial voiced consonant. These go through the same two processes as above plus a third one:

Stem-initial **voiced** consonants:

1. The vowel *u* of the prefix is dropped, e.g: *mu-lóngo*³⁴ > *m-lóngo* ‘relative, fellow-tribe’ (cl.1).
2. Regressive place assimilation of the prefix *m-* takes place; the nasal takes the same place of articulation as the stem-initial consonant: *m-lóngo* > *n-lóngo*.
3. The nasal of the prefix causes nasalisation of the stem-initial consonant, if this is not already a nasal: progressive nasalisation: *n-lóngo* > *nnóngo*. The result is a geminate nasal. When the stem-initial consonant is *w*, the result is *ηηw*.

This is again illustrated with examples for each prefix.

a) 1NCP + voiced stem-initial C

Table 14 The prefix *mu-* in noun class 1 with stem-initial voiced consonant

Ndengeleko	Underlying	English		Plural	
<i>mmijé</i>	/mu-bije/	‘sick person’	(cl.1)	<i>a-bijé</i>	SM
<i>ηηéni</i>	/mu-geni/	‘visitor’	(cl.1)	<i>a-géni</i>	AK
<i>nnóngo</i>	/mu-longo/	‘God’	(cl.1)	-	HK
<i>ηηóbílai</i>	/mu-yóbilai/	‘hunter’	(cl.1)	<i>a-yóbilai</i>	AK
<i>nnáloome</i>	/mu-nalooome/	‘man’	(cl.1)	<i>a-náloome</i>	HK

b) 3NCP + voiced stem-initial C

Table 15 The prefix *mu-* in noun class 3 with stem-initial voiced consonant

Ndengeleko	Underlying	English		Plural	
<i>mméleko</i>	/mu-beleko/	‘offspring’	(cl.3)	<i>mi-béleko</i>	AK
<i>ηηóonda</i>	/mu-gonda/	‘cultivated ground, field’	(cl.3)	<i>mi-góonda</i>	AK
<i>nnáka</i>	/mu-laka/	‘anger’	(cl.3)	<i>mi-láka</i>	AK
<i>ηηáango</i>	/mu-lyango/	‘door’	(cl.3)	<i>mi-lyáango</i>	AK
<i>ηηwíli</i>	/mu-ηwili/	‘hair’	(cl.3)	<i>mi-ηwíli</i> ³⁵	SS

³⁴ Underlying form /mu-longo/, HK. The plural is *alóngo* /a-longo/ ‘relatives’ (cl.2).

c) 1OM + voiced stem-initial C

32. *atekúmmakiya*

a- te- ku- mu- bakiy -a
1SM- COMPL- 15NCP- 1OM- tell -FV
'S/he told him/her.' (TO-S)

33. *tunnínda*

tu- mu- lnd -a
1pSM- 1OM- wait -FV
'We are waiting for him/her.' (SM-E)

34. *aṅṅóbila ngóle*

a- mu- yobɪl -a N- kole
1SM- 1OM- hunt -FV 9/10-rat
'S/he is chasing the rat.' (AK-E)

35. *kunṅita*

ku- mu- yit -a
15NCP- 1OM- pour -FV
'to pour on him' (TO-S)

36. *aṅṅwalika mwana*

a- mu- walɪk -a mwana
1SM- 1OM- dress -FV 1.child
'S/he is dressing the child.' (PK-E)

d) 2pOM + voiced stem-initial C

37. *aṅṅómike*

a- mu- gom -ike
1SM- 2pOM- hinder -PFV
'S/he hindered you (pl).' (AK-E)

e) 2pSM + voiced stem-initial C

The optionality of reduction of this prefix is illustrated in (40).

³⁵ Plural not accepted by everyone, see section 5.5.

38. *kenéé mmóóke*
 kene mu- bʊok-e
 NEG 2pSM- go -SUBJ
 ‘don’t go’ (you, pl) (AK-E)
39. *mwé j̄j̄owa kwáa*
 mwee mu- yow -a kwaa
 you (pl) 2pSM- hear -FV NEG
 ‘you (pl) don’t listen’ (AK-E)
40. *kenéé j̄j̄éénde/muyéénde*
 kene mu- yend -e
 NEG 2pSM- go -SUBJ
 ‘You (pl) shouldn’t go/don’t go.’ (AK-E)

f) Locative + voiced stem-initial C

The locative prefixes are optionally reduced.

Table 16 The prefix *mu-* in noun class 18 with stem-initial voiced consonant

Ndengeleko	Underlying	English		
<i>nnóóŋgi</i>	/mu-lɔŋgi/	‘in front of’	(cl.18)	AK
<i>mmáási</i>	/mu-maa-si/	‘in the water’	(cl.18)	AK
<i>munáni/</i> <i>nnáni</i>	/mu-nani/	‘on top’	(cl.18)	AK
<i>j̄j̄óómba</i>	/mu-N-yomba/	‘in the house’	(cl.18)	HN

41. *mpóŋgótɪ mubólaga báandu*
 mu- ø- pɔŋgɔtɪ mu- bɔlag -a ba- ndu
 18NCP- 9/10-bush 18SM- kill -FV 2- people
 ‘People are killed in the forest’ (AK-E)

In conclusion, all *mu-* prefixes are affected, optionally or otherwise, by the same set of morpho-phonological processes. These processes result in sequences of nasal plus voiceless consonant, or in sequences of two identical nasals. The noun class prefixes of class 1 and 3 are affected, as well as the object marker of class 1 (which equals 3rd person singular), the object marker of the second person plural, the subject marker of the second person plural, and the locative prefixes. We will now discuss the other set of nasal prefixes and the morpho-phonological processes involved.

The N-/ni- prefixes

The *ni-* prefixes of the 1st person subject and object marker, after reducing to *N-*, as well as the noun class 9/10 prefix *N-*, undergo processes of post-nasal voicing (Hyman 2003b:50) plus place assimilation, processes which are widespread in Bantu languages.

The morpho-phonological processes accounting for the surface forms of the *N-/ni-* prefixes are the following:

1. The vowel of the prefix, if any, is dropped.
2. a) The remaining nasal causes voicing of a following voiceless consonant.
 - b) Voiced consonants remain the same, except /l/, which hardens to [d].
 - c) The glide /y/ becomes [z] or [j] and the glide /w/ becomes [gw]. Odden (1996:94) calls this post-nasal hardening.
 - d) A nasal in stem-initial position is subject to reduction.
3. The nasal of the prefix assimilates its place of articulation to an obstruent, if any (regressive place assimilation).

This is illustrated here with examples of the different *N-/ni-* prefixes.

a) 9/10NCP

All nouns in noun class 9/10 with the prefix *N-*³⁶ begin with a nasal plus a voiced consonant as the result of these morpho-phonological processes. Arguments for the voiceless quality of the underlying consonant will be further discussed below.

³⁶ Nouns in 9/10 can also have a \emptyset -prefix.

Table 17 The N- prefix of class 9/10

Ndengeleko	Underlying	English		
<i>mbáka</i>	/N-paka/	'cat'	(cl.9/10)	AK
<i>mbáamba</i>	/N-pamba/	'small ants'	(cl.9/10)	AK
<i>mbotipóti</i>	/N-potipoti/	'bat'	(cl.9/10)	AK
<i>ndóondwa</i>	/N-tondwa/	'stars'	(cl.10)	AK
<i>ndóbe</i>	/N-tobe/	'fish, sp'	(cl.9/10)	HK
<i>ngimikími</i>	/N-kimikimi/	'deaf person'	(cl.9/10)	AK
<i>ngíli</i>	/N-kíli/	'lengths of mat'	(cl.10)	AK
<i>ndíla</i>	/N-líla/	'path'	(cl.9/10)	AK
<i>nzáti</i>	/N-sati/	'buffalo'	(cl.9/10)	SM
<i>nzogólo</i>	/N-sogolo/	'rooster'	(cl.9/10)	AK
<i>jóta</i>	/N-jota/	'thirst'	(cl.9/10)	AK
<i>jélwa</i> ³⁷	/N-jelwa/	'snake, sp'	(cl.9/10)	AK

b) 1sSM

Reduction of the *ni-* prefixes is optional. This is also the case in Matuumbi (Odden 1996:89). Further examples of this optionality will be given below.

42. *mbála..*

ni- pal -a
1sSM- want -FV
'I want' (AK-E)

43. *ndáma Ikwilíli*

ni- tam -a Ikwilíli
1sSM- live -FV Ikwiriri
'I live in Ikwiriri' (AK-E)

44. *(niyénda kumígúnda) ngaóme libínda*

(ni- yend -a ku- mi- gonda) ni- ka-om -e li-binda
(1sSM- go -FV 17NCP- 4NCP- field) 1sSM- IT-gather -SUBJ 5-okra
'(I go to the field) to gather okra' (HN-D)

45. *jwíile*

ni- jw -iile
1sSM- drink -PFV
'I drank (it)' (AK-E)

³⁷ Cf. the verb *jéloka* 'sneak away, disappear quickly'.

46. *njikitiya kwááko*
ni- yikitiy -a kwako
1sSM- agree -FV NEG
'I don't agree' (TO-S)

47. *ngááliye*
ni- kaaliye
1sSM- be.angry.PFV
'I am angry.' (AK-E)

48. *ngwi páai*
ni- w -ii paai
1sSM- fall -PFV down
'I fell down.' (AK-E)

c) 1sOM

49. *andóngema*
a- ando- ni- kem -a
1SM- PRES.DJ- 1sOM- call -FV
'S/he is calling me.'(HK-E)

50. *bambiile kyíimbe*
ba- ni- p- iile ki- imbe
2SM- 1sOM- give-PFV 7- knife
'They gave me the knife.' (HN-D)

51. *nzólokeya máási*
ni- yolokey -a maa-si
1sOM- add -FV 6- water
'Give me some more water' (AK-E)

52. *kumbákiya*
ku- ni- bakiy -a
15NCP- 1sOM- tell -FV
'to tell me' (TO-S)

53. *ndéka*
ni- lek -a
1sOM- leave -FV
'Leave me (alone).' (TO-S)

Noun class 9/10 nouns have singular as well as plural reference, which means that there is no alternation in prefixes with these stems, as for example with class 3 nouns. The underlying consonant can show up with other prefixes, however. For example, some speakers accept an alternate plural in class 6 or 4 for these nouns (a). It is also possible to derive a diminutive noun in class 12 with the prefix *ka-* (b). Moreover, certain class 9/10 nouns are reduplicated (c). In all these cases, the noun stem initial consonants are voiceless in the consonant types where there is a voiced/voiceless opposition.

Table 18 The underlying consonant in class 9/10

	Ndengeleko	Underlying	English	Plural	English	
a	<i>mbéyo</i>	/N-peyɔ/	‘seed’	<i>mi-péyo</i>	‘seeds’ (cl.4)	HK/SS
	<i>ndómóondo</i>	/N-tomondo/	‘hippopotamus’	<i>ma-tómóondo</i>	‘hippopotamus’ (cl.6)	SM
b	<i>mbésa</i>	/N-pesa/	‘hare’	<i>ka-pésa</i>	‘small hare’ (cl.12, dim)	AK
c	<i>mbangápaanga</i>	/N-pangapanga/	‘fish, sp’	-		HK
	<i>nzwíswí</i>	/N-swíswí/	‘cherry tomatoes’	-		AK

Because of this, I propose that a reanalysis of these consonants has taken place in Ndengeleko, compared with PB, and that the noun stem initial consonant of a noun in 9/10 is underlyingly voiceless.³⁸ This means, for example, *mbéyo* ‘seed’ has the underlying form /N-peyɔ/, although this noun has been reconstructed as **mbégó* or **mbéjó* for PB. Therefore, when there is no counter-evidence, the stem-initial consonant of class 9/10 will be assumed to be underlyingly voiceless.³⁹ This of course only holds when there is a voiced/voiceless opposition, i.e. with the stops and the fricative.

The lateral /l/, on the other hand, is subject to another process and becomes a stop [d] following a nasal. This is called *delateralization* by Odden (1996), and is illustrated with the following example, where the noun in 9/10 is compared to a noun in class 11 which reveals the underlying form of the stem.

54. *ndéu* /N-leu/ ‘beard’ (cl.9/10) *lu-léu* ‘one hair’ (cl.11) AK

³⁸ This has also been attested in Matuumbi (Odden 1996:93).

³⁹ There are some exceptions to this, e.g. *ka-bolibóli*, from *mbolibóli* ‘spider’ (cl.9/10), AK, (PB **bòbi*), *mbáu* ‘ribs’ (cl.10), singular *lu-báu* ‘rib’ (cl.11), SS, (PB **bàdù*).

A stem-initial nasal, preceded by a *N-/ni-* prefix, surfaces as a single nasal. Odden (1996:95) calls this ‘Nasal Deletion’. We see this with *nwíile* /ni-nw-ile/ ‘I drank (it)’ in example 45, and with the nouns in class 9/10 with stem-initial nasal in Table 17, i.e. the last two examples.

There are not many examples of nasal deletion in the data. This is explained by the optionality of the morpho-phonological changes for the *ni-* prefixes, as will be further illustrated below. Apparently, speakers avoid reduction of the first person singular subject marker when a verb with a stem initial nasal is used, as in the following example:

55. *nínéniike*

ni- neniike
 1sSM- put.on.fire.PFV
 ‘I have put on the fire.’ (HN-D)

I expect that speakers avoid this as there would otherwise be no distinction between the stem without prefix and the stem with the 1sSM prefix.

There are exceptions to the application of the morpho-phonological processes with *N-/ni-* prefixes. In certain contexts, there is reduction of the prefix and assimilation of the nasal to the stem-initial consonant, but no voicing. This only concerns the velar NC sequence *ŋg*, followed by a nasal in the next syllable. Instead of the expected *ŋg*, the outcome is a velar nasal *ŋ* only.

56. *ŋóónzike*

ni- gonz -ike
 1sSM- sleep -PFV
 ‘I have slept.’ (AK-E)

57. *muŋómike néenga*

mu- ni- gom -ike nenga
 2pSM- 1sOM- hinder -PFV I/me
 ‘You (pl) hindered me.’ (AK-E)

Moreover, this appears only to be the case when the stem-initial consonant is a voiced velar /g/. The voiceless velar, on the other hand, undergoes the expected processes:

58. *ngáánzike..*

ni- kanz -ike
 1sSM- break -PFV
 ‘I have broken..’ (AK-E)

These examples show that Ndengeleko is affected by a variant of Meinhof’s rule. In general, Meinhof’s rule affects NC sequences so that they are reduced to a single or geminate nasal, when followed by a nasal or NC in the next syllable (Hyman 2003b:56; Schadeberg 2003b:148). Meinhof’s rule exists in different forms, however. In Ndengeleko, the rule only affects NC where the underlying stem-initial consonant is the voiced velar, as with the following lexemes in class 9/10.

59.	<i>ngógotwa</i>	/N-gogotwa/	‘bee’	(cl.9/10)	AK
	<i>ngóma</i>	/N-goma/	‘drum, dance’	(cl.9/10)	AK
	<i>ngáambu</i>	/N-gambu/	‘other side’	(cl.9/10)	AK
	<i>ngóonda</i>	/N-gonda/	‘split dried fish’	(cl.9/10)	HK
	<i>ngómbe</i>	/N-gombe/	‘cattle’	(cl.9/10)	AK

The realisation of several of these nouns follows Meinhof’s law in many other Bantu languages, as in Bukusu *è:ngòmà* ‘drum’; Saamia *enoombe* ‘cow’ (Bastin 2003:512). I propose that the nouns in example 59 have an underlying voiced g in Ndengeleko. This in contrast to most stems in this noun class, which have an underlying voiceless stem-initial consonant, as argued above.

There are numerous nouns in noun class 9/10 which do not follow Meinhof’s rule, e.g. *ngáamba* /N-kamba/ ‘prawn’ (cl.9/10) and *ngíkíkími* /N-kíkíkími/ ‘deaf person’ (cl.9/10).⁴⁰ These nouns are analysed as having a voiceless velar. It is proposed that Meinhof’s rule also underlies the anomalous verb *ku-ngánanana* ‘to be astonished’, which is the only stem in Ndengeleko with initial [ŋ].

As already mentioned, the reduction of the *ni-* prefixes is optional. This will be illustrated here. In example 60, the prefix does not reduce in combination with a verb stem with an initial /p/. In the same text with the same speaker, the prefix is reduced with the same verb stem (example 61), hence the stem-initial consonant becomes voiced.

⁴⁰ It is interesting to note that many of these ‘exceptions’ are loans or reduplications.

60. *Basókíke nípákwiile.*

ba- sok -ike ni- paku -iile
2SM- wash -PFV 1sSM- serve.food -PFV
'They have washed (their plates) and I have served.' (HN-D)

61. *Ni bokóbókó yáŋɔ mbákwiile*

ni ø- bokoboko i- angɔ ni- paku -iile
and 9/10-banana.stew 9/10Cd- 1sPOSS 1sSM- serve.food-PFV
'And I have served my banana stew.' (HN-D)

In the following two examples, we see the same with a verb with an initial /t/, which is voiced to [d] in the second example.

62. *Nítwéti nási ŋúnike.*

ni- tweti ø- nasi ni- kun -ike
1sSM- take.PFV 9/10-coconut 1sSM- grate -PFV
'I have taken the coconut and grated it.' (HN-D)

63. *Nd#wéti mwíiŋo upáaya.*

ni- tweti mu- iŋo upaaya
1sSM- take.PFV 3- salt to.taste
'I have taken salt to taste.' (HN-D)

The optional reduction of the *ni-* object marker is exemplified here:

64. *Apala unibákiya jaái*

a- pal -a u- ni- bakiy -a jaai
1SM- want -FV 15NCP- 1sOM- tell -FV who
'Who would tell me?' (HK-D)

65. *kumbákiya*

ku- ni- bakiy -a
15NCP- 1sOM- tell -FV
'to tell me' (TO-S)

The *ni-* subject marker does not reduce when followed by an object marker, in the examples available in the data. In the case of a vowel-initial object marker (67), there is glide formation, see section 4.6.1.

66. *ni*gabwééni

ni- ga- bweni
1sSM- 6OM- see.PFV
'I saw them (of cl.6).' (HK-E)

67. *nyaabwéni nzáti kuMuhólo*

ni- a- bweni N- satı ku- Muholo
1sSM- 2OM- see.PFV 9- buffalo 17NCP- Muhoro
'I saw buffalos at Muhoro (village).' (HK-E)

In conclusion, the *N*-prefix and the subject and object prefixes of class 1 (i.e. 3rd person singular) are affected by the same set of processes, yielding sequences of nasal plus voiced consonant, or a single consonant in the case of nasal deletion and Meinhof's rule.

As we have seen, the morpho-phonological processes concerning the *mu*- and *N-/ni*- prefixes are rather complex in Ndengeleko. However, to distinguish them from each other in the output is not a problem. A NC sequence with a voiced consonant is always from a *N*- or *ni*- prefix. In other words, if it is a noun it is always class 9/10. A nasal followed by a voiceless consonant always involves a *mu*- prefix, and must in the case of a noun be a class 1 or class 3 noun. Likewise, a geminate nasal always involves a *mu*- prefix. In this way, important morphological distinctions of the input are retained in the output.

3.4 *Spirantisation and consonant loss*

We will now investigate a diachronic process which has had a significant impact on the Ndengeleko phonology. Stops in many Bantu languages, and certainly in Eastern Bantu, undergo a phonological change referred to as spirantisation preceding reflexes of the Proto-Bantu high vowels **i* and **u*.⁴¹ The change is diachronic and stem-internal as well as synchronic and morpho-phonological, and in most cases involves the expansion of the consonant inventory of a given language by adding fricatives and/or affricates, which were not reconstructed for Proto-Bantu, as shown in Figure 2. For example, in Jita (Downing 2007:56), the

⁴¹ Spirantisation may not be an appropriate term, as the sound change may affect place as well as the manner of articulation (Maddieson 2003:19), and may cover diverse processes such as palatalisation, assibilation and others (Bostoen 2005:232). It is used here as it is well established (Janson 2007).

Proto-Bantu word **-bú* is *-fu* ‘ash’ and PB **-dìtò* is *-sìto* ‘heavy’. Spirantisation in the Jita language is a source of the fricative phonemes /f/ and /s/.

In the remainder of this section, I will take the following factors into account in the analysis of spirantisation in Ndengeleko:

1. The phonetic output of the change: this varies significantly across Bantu languages, involving both mode and place of articulation (Bostoen 2008:306; Janson 2007), section 3.4.1.
2. The number of vowels: most spirantising languages have reduced the vowel inventory from seven to five vowels, but not all (Schadeberg 1995), section 3.4.2.
3. The contexts which are affected: there is historical, morpheme internal spirantisation as well as synchronic spirantisation across morpheme boundaries (Labroussi 1999), section 3.4.3.
4. The sounds affected: in some languages only a subset of consonants is spirantised. Also, all consonants may be affected in one morphological context, fewer in another (Bostoen 2005). For example, coronal and velar consonants are fricated in all four morphological contexts as described below (section 3.4.3) in Ganda, while labials are fricated only tautomorphemically (Hyman 2003a:58).

3.4.1 *The phonetic output*

It is not often mentioned in the literature on spirantisation that there is a small group of languages with nothing in the place where most spirantising Bantu languages have replaced their stops with e.g. fricatives. In a number of languages in the N and P group, the output of the sound change is mainly /h/ or \emptyset . The PB word **-bú* ‘ash’ mentioned above, with the reflex *-fu* in Jita, is simply *-u* in Ndengeleko: *líi-uu* ‘ash’ (cl.5).⁴² Based on evidence from lexical variation in certain of the N and P group languages, the following stages have been suggested by Hinnebusch (1981:38):

⁴² The noun class prefix *líi-* is long in certain cases in Ndengeleko (see section 4.2).

Figure 4 **Stages of spirantization and consonant loss**

PB: *p, t, k, B, l, G/_HV⁴³

Stage 1: Spirantisation yields /f, s, v, z/

Stage 2: Spirant-devoicing gives /f, s/

Stage 3: Spirant-weakening; /f, s/ become /h/

Stage 4: /h/ > ø

In Hinnebusch's study of spirantisation as an areal change, including an appendix with reflexes of stops and high vowels in 185 Bantu languages, Ndengeleko (Rufiji) is the only of these languages which fully attests stage 4, which means that the PB consonants are completely lost in the environment before *i and *u (Janson 2007:114). Matuumbi has also gone through stage 4, but with a few exceptions (Janson 2007:114). Compare these languages with Nyakusa, for example, where *d has become /f/ before a high back vowel in *undefu* 'beard', from *-dèdu 'beard, chin' (Labrousse 1999:340). The same lexical item in Ndengeleko has dropped the consonant altogether: *ndéu* /N-leu/ 'beard'.

3.4.2 *Interaction with the vowel system*

The spirantisation sound change is known to go hand in hand with the reduction from seven to five vowels in many Bantu languages. In such languages the PB vowels *i and *ɪ, and *u and *ʊ, respectively, have merged, thus resulting in a five-vowel system. According to Schadeberg (1995) no language has been found to undergo vowel reduction without also undergoing spirantisation. The other way around – spirantisation without vowel reduction – is attested but rather exceptional. According to Hinnebusch (1981:72) it is found in several languages in the Southern Highlands cluster, some in the Lake Corridor area, Ngoni, and the Rufiji languages (including Ndengeleko).

The languages that have reduced their vowel inventory to five vowels have developed a larger consonant inventory through spirantisation. For example, PB *ki may be realised as [si] and *ku as [fu] in a given language, while *kʊ and *kɪ are realised as [ki] and [ku]. In the words of Hyman (2003a:56) 'what started out

⁴³ The reconstructed PB consonant inventory of Hinnebusch differs from the reconstruction followed in this work (Bastin and Schadeberg 2003).

as an opposition between [+/-ATR] high vowels is transphonologized to a consonantal opposition'. The larger consonant inventory 'compensates' for the reduced number of vowels.

Ndengeleko retains seven vowel phonemes. Not only is Ndengeleko one of the few languages which has undergone spirantisation but no vowel reduction; the language has gone through all the 4 stages listed in Figure 4. This has left the language with \emptyset in the place where other affected Bantu languages have fricatives/affricates.

3.4.3 *Morphological contexts and sounds affected*

As described by Bastin (1983:25), Labroussi (1999) and Hyman (2003a), not all relevant consonants necessarily undergo the process in all environments preceding **i* and **u* in a given Bantu language with spirantisation. Certain morphological contexts are more or less universally affected by spirantisation while others are less frequently affected (Labroussi 1999:337). There is a hierarchy⁴⁴ of these contexts, from more frequent to less frequent:

Figure 5 Hierarchy of spirantizing contexts

1. morpheme-internal
2. adjectival **-u* and causative **-i-*
3. agentive **-i*
4. past/perfect tense **-ide*.

Moreover, spirantisation might be optional or affect only certain consonants, especially in contexts lower in the hierarchy in Figure 5. Hyman postulates that there is also a phonological hierarchy of spirantisation, whereby coronals are more readily spirantised than velars, which are more easily spirantised than labials (Hyman 1997).

We shall now consider the four contexts in the hierarchy in Figure 5 for Ndengeleko. The first, morpheme-internal context, concerns a historical and

⁴⁴ Attempts have been made to explain the weaker or stronger tendencies to spirantization depending on morphological context (Bastin 1983; Hyman 2003a; Downing 2007). The hierarchy is debated, but at least it seems clear that there exist more and less conducive environments for spirantization (Bostoen 2005:245).

lexicalised sound shift. In the latter three contexts, spirantisation is a synchronic morphophonemic alternation between stops and spirantised consonants (Bostoen 2005:232). In fact, even though there is an alternation, the synchronic representations of spirantisation are often not phonological and productive, but morphologised and lexicalised to different degrees in different Bantu languages (Bostoen 2008). This also holds for Ndengeleko, as we shall see.

Morpheme-internal

Spirantisation and consonant loss have affected all Proto-Bantu stops **b, p, d, t, k* in the tautomorphic, historical sound shift in Ndengeleko, whereby $C > \emptyset _i/u$. So far, there are no examples in my data regarding reflexes of **gi* and **gu*.

Table 19 Spirantisation and consonant loss: morpheme-internal

Ndengeleko		PB	English		
*p					
<i>ø-igo</i>		*pígò	‘kidney’	(cl.9/10)	AK
<i>kwíika</i>	/ku-ika/	*pík	‘to arrive’		AK
*b					
<i>kwíina</i>	/ku-ina/	*bín	‘to dance’		SS
<i>ma-íilo</i>		*bídò	‘soot’	(cl.6)	HK
<i>líi-uu</i> ⁴⁵		*bú	‘ashes’	(cl.5)	SM
<i>kwíimba</i>	/ku-imba/	*bimb	‘to swell’		AK
<i>ø-úliya</i>		*bùì or bùdì ‘hair on body’	‘white hair’	(cl.9/10)	HK
<i>mwii</i>	/mu-ii/	*jibì DER	‘thief’	(cl.1)	AK
<i>ø-úla</i>		*búdà	‘rain’	(cl.9/10)	AK
*t					
<i>úingo</i>	/ø-ungo/	*tùngò	‘civet’	(cl.9/10)	AK
<i>mwíito</i>	/mu-ito/	*títò	‘forest’	(cl.3)	AK
*l/d					
<i>kw-ímiya</i>		*dím	‘to extinguish’		SM
<i>ku-úba</i>		*dúb	‘to fish’		HK
<i>lu-báu</i>		*bàdù	‘rib’	(cl.11)	SS
<i>ndéu</i>	/N-leu/	*dèdù	‘beard’	(cl.9/10)	AK
<i>ku-wála</i>		*dúad	‘to wear’		AK
*k					
<i>iíngo</i>	/ø-ingo/	*kíngó	‘neck’	(cl.9/10)	HK
<i>ly-óói</i>	/li-oi/	*jókì VAR	‘smoke’	(cl.5)	SM
<i>ma-úta</i>		*kútà	‘oil’	(cl.6)	HK
<i>ku-táúna</i>		*táku	‘to chew’		TO
<i>ku-úma</i>		*kúm VAR	‘to come from’		AK
<i>kyúúba</i>	/ki-uba/	*kúbà	‘chest’	(cl.7)	AK
<i>kyúúpa</i>	/ki-upa/	*kúpà	‘bone’	(cl.7)	AK
<i>kyúundo</i>	/ki-undo/	*kúndò DER	‘joint’	(cl.7)	AK

The table shows that morpheme internal vowel sequences in the language are a result of this sound change, as in *-táúna* ‘chew’ from PB **táku*.

Stops have generally not been lost before non-high vowels in Ndengeleko, and here we clearly see the difference between the first degree high vowel *i* and the second degree vowel *ɪ*, even though they are auditorally close. Therefore, **d* has been lost in *-ímiya* ‘extinguish’, but not in *-líma* ‘cultivate’, in the following table:

⁴⁵ In this word, the prefix is long, as with a number of class 5 nouns, see section 4.2.

Table 20 Sound change preceding **i* and **u*, not preceding **i* and **o*

Ndengeleko	PB	English
<i>-ína</i>	<i>*bín</i>	‘dance’
<i>úóbí</i>	<i>*cóbì</i>	‘leopard’ (cl.9/10)
<i>-ímíya</i>	<i>*dím</i>	‘extinguish’
<i>-líma</i>	<i>*dím</i>	‘cultivate’
<i>-taína</i>	<i>*táku</i>	‘chew’
<i>-kóonda</i> /-konda/	<i>*kónd</i>	‘like, agree’

*Adjectival *-u and causative *-i-*

According to Labroussi (1999:338), spirantisation occurs in all languages which have reflexes of the adjectival derivation suffix **-u* and the causative extension **-i-*. There is an active morphophonemic process of spirant/stop alternations in these languages, as exemplified here by Kinga (Labroussi 1999:344), citing Schadeberg (1973). The first example shows the alternation between a stop in the verb stem and a fricative in the adjective, preceding **-u*. The second example shows alternation between a verb stem and its causative counterpart.

Table 21 Spirant/stop alternation in Kinga (Schadeberg 1973)

Kinga	English	Kinga	English
Verb stem			
<i>-yolok-a</i>	‘be straight’	<i>-yolos-u</i>	‘straight’ (adjective)
<i>-homb-a</i>	‘pay’	<i>-hos-a</i>	‘make s.o. pay’ (causative)

In Ndengeleko, the adjectival derivation suffix *-u* does not appear to be productive; there are only a few examples in the data.⁴⁶ In those cases, spirantisation and consonant loss have taken place:

Table 22 Spirantisation and consonant loss with adjectival **-u*

Adjective	English	Verb stem	PB	English
<i>-bóou</i>	‘rotten’	<i>-bóla</i>	<i>*bòd</i>	‘rot’
<i>-póou</i>	‘cold’	<i>-póla</i>	<i>*pód</i>	‘cool down’

The causative in Ndengeleko is formed by means of the suffix *-i-*, as in *-bók-iy-a* ‘return something’ (‘cause to go’), related to *-búóka* ‘go’. As will be further

⁴⁶ Adjectives are few in general in Ndengeleko (see 6.3). Property concepts are often expressed by verbs or nouns instead.

discussed in section 8.3 on causative formation, the suffix in *-bók-iy-a* consists of the applicative plus the causative: *-il-i*. The causative *-i* glides to *-y* and causes spirantisation and consonant loss of *-l-*. Moreover, it passes on its vowel quality to preceding non-low vowels, a process which has been attested for Nande (Hyman 2003a:59).

Agentive

So far, languages which show evidence of the processes in 1) the interior of morphemes, and 2), adjectival **-u*, can be said to have ‘limited spirantisation’. A language is said to have ‘extensive spirantisation’ if the stops preceding the agentive (or nominalising) suffix **-i* are affected by the process. The reflexes of agentive **-i* have been shown to have importance for the internal classification of Bantu (Bostoen 2008), as the sound shift of spirantisation has been morphologised to different degrees in different languages: ‘Within individual Bantu languages, earlier derived agent nouns often behave differently as regards BS [Bantu Spirantisation] than more recently derived agent nouns’ (Bostoen 2008:302). Agentives are typically human and hence assigned to classes 1/2, but other classes may also be used (Schadeberg 2003a), which is why they might more properly be referred to as ‘nominalising suffixes’. In this table, the Ndengeleko agentives are compared with a corresponding verb, either in Ndengeleko or in Proto-Bantu. PB forms are starred (*):

Table 23 Spirantisation and consonant loss with nominalising **-i*

Agentive		English	Verb	PB	English
<i>mmélei</i>	/mu-belei/ ⁴⁷	‘parent’	(cl.1) <i>-béleka</i>	<i>*bèdik</i> DER	‘give birth’
<i>mwii</i>	/mu-ii/	‘thief’	(cl.1)	<i>*jibi</i> DER	‘thief’
<i>mwéei</i>	/mu-ei/	‘moon’	(cl.3)	<i>*jédi</i> DER	‘moonlight’

It has been suggested (Bostoen 2005) that the nominalising suffix *-i* should not be included in a hierarchy of synchronic spirantisation contexts, but seen as the fossilised result of a derivational process, as its use is rather limited in many Bantu languages and has been replaced by other means of creating nouns. This applies to

⁴⁷ The noun stem-initial consonant is assumed to be /b/, as in the verb stem. In the noun *mmélei* ‘parent’, this becomes a nasal, according to morpho-phonological rules. However, the plural of this noun is *amélei* (cl.2), which points to an underlying nasal /m/, instead of the expected **abelei*. Presumably the stem-initial *m* is an innovation.

Ndengeleko as well, given the limited occurrence of such nouns. As we will see in section 5.6.3, more recent derivational forms are used to form agentives.

Matuumbi does not appear to have spirantisation preceding nominalising *-i*, as for example in *ntéleki* ‘cook’ (cl.1) from *-téleka* ‘cook’ (Odden 1996:25).

*Past/perfect tense *-ide*

The last context in which spirantisation typically occurs, preceding the past/perfect morph **-ide*, is the least commonly affected in Bantu languages and is restricted to a very limited number of languages (Bostoen 2005:246). Languages which have spirantisation in this context are said to have ‘full spirantisation’. Ndengeleko has several perfective suffixes which are supposedly reflexes of PB **-ide* (see section 10.8.3, and Table 25 for examples). The short form *-i* triggers spirantisation and consonant loss. This is not a productive suffix, however.

Table 24 Spirantisation and consonant loss preceding perfective *-i*

Perfective	Verb stem	Proto-Bantu	English
<i>-bóó-i</i>	<i>-bóla</i>	<i>*bòd</i>	‘rot’
<i>-póó-i</i>	<i>-póla</i>	<i>*pód</i>	‘cool down’
<i>-póó-i</i>	<i>-póóla</i>	<i>*póod</i>	‘pound’
<i>-bíí-i</i>	<i>-bíla</i>		‘boil’
<i>-lóó-i</i>	<i>-lóla</i>		‘rise’
<i>-kóó-i</i>	<i>-kóla</i>	<i>*kód</i>	‘grow’
<i>-kwé-i</i>	<i>-kwéla</i>	<i>*kóed REF</i>	‘climb’
<i>-bí-i</i>	<i>-bíika</i>	<i>*bíik DER</i>	‘put’
<i>-léé-i</i>	<i>-léka</i>	<i>*dèk</i>	‘let;cease’
<i>-bóó-i</i>	<i>-bóóka</i>		‘go (away)’
<i>-bóó-i</i>	<i>-bóya</i>		‘return’
<i>-téé-i</i>	<i>-téenda</i>	<i>*tend</i>	‘do,act’
<i>-yéé-i</i>	<i>-yéenda</i>	<i>*gènd</i>	‘go’

An interesting aspect is that certain of these verbs have more than one way of forming the short perfective. For example, it is possible to say *-ból-i* ‘-rot-PFV’ instead of *-bóó-i* ‘-rot-PFV’. Presumably, *-bóó-i* is the older form which has become lexicalised, and the doublet *-ból-i*, which is based on the root morpheme *-ból-* and therefore more transparent, is introduced. This alternation is evidence of domain retraction (Downing 2007). Other examples are *-bíl-i* ‘boil-PFV’ instead of *-bíí-i*, *-pól-ike*⁴⁸, ‘pound’ instead of *-póó-i*, and *-bík-ike* ‘put-PFV’ instead of *-bíí-i*.

⁴⁸ The suffix *-ike* is a newer perfective suffix in my analysis, see section 10.8.3.

Pre-nasalisation may in some languages be a blocker of spirantisation (Bostoen 2005:248), but at least for *nd*, this is not the case in Ndengeleko, as is evident from the last two examples in the table.

The suffix *-i* does not always cause spirantisation. None of the other perfective suffixes *-ile*, *-ike* or imbricated *-iCe*, with a high first vowel, causes spirantisation.

Table 25 Absence of spirantisation/consonant loss with *-ike*, *-iile* and *-iCe*

Verb stem	Perfective	Proto-Bantu	English
<i>-yák-a</i>	<i>-yak-i/-yakike</i>	* <i>bàk</i>	‘burn’
<i>-pít-a</i>	<i>-pít-ike</i>	* <i>pít</i>	‘pass’
<i>-kólya /-kol-ɪ-a/</i>	<i>-kól-iile</i>		‘be enough’
<i>-bólag-a</i>	<i>-ból-ii-g-e</i>	* <i>bódag DER</i>	‘kill’

The perfective stems with *-i* involving spirantisation are limited in number and lexicalised. This is not a productive pattern, and can therefore not be considered ‘a central element of the inflectional morphology’ (Labrousse 1999:365).

In conclusion, Ndengeleko has been affected by spirantisation and consonant loss in all the morphological contexts listed at the beginning of this subsection. However, for the agentive, causative, adjective and reflexes of **-ide* the effects are limited. The forms concerned are presumed to be older lexicalised forms, and in the modern language there are other productive means of forming words of these categories.

As mentioned at the beginning of this section, a few other languages behave in a similar way to Ndengeleko when it comes to spirantisation and consonant loss. Matuumbi, for example, has \emptyset or /h/ as a reflex of **p* in the PB context **pi*, according to Hinnebusch (1981:39). Odden does not mention spirantisation, and Matuumbi agentives in **-i* do not affect the preceding consonant, as mentioned above. Also the perfective context does not cause spirantisation. But ‘monosyllabic stative stems ending in a short stem vowel plus *l* optionally delete *l* and reduce the perfective suffix to *i*’, as for example in *yaabói* ‘it rotted’, alternatively *yaabólite* (Odden 1996:53).⁴⁹

In line with Hinnebusch (1981) and Janson (2007:91), the loss of consonants in Ndengeleko is here taken to be a sound change following from spirantisation. Voiceless fricatives shifted to /h/, which in turn shifted to \emptyset – such changes are

⁴⁹ Odden (1996) does not contain a wordlist, which makes it difficult to conclude anything about spirantisation in that language.

well attested in the languages of the world. This analysis is supported by lexical variation in some languages, i.e. /s ~ h/ variation in Ngoni and /h ~ ø/ variation in Ngindo (Hinnebusch 1981:38). Ndengeleko has therefore gone through the full development of spirantisation, followed by weakening and consonant loss. Moreover, it has done so in all contexts affected by spirantisation, although this is not a productive process in the modern language.

Ndengeleko has not reduced its vowel inventory, and the language has also not gained consonants, because these are lost in the relevant environments. I propose that the reason that Ndengeleko has not reduced its vowel inventory, is precisely the lack of new fricative/affricate consonants resulting from spirantisation. I can think of two scenarios to explain this. Either the spirantisation and consequent consonant loss took place within a rather limited time frame, so that there was not enough time with the added consonants to lose the vowels, or the line of development was not via fricatives. There is no evidence for this, however, which makes the first explanation much more likely. Janson (2007:99) points out that the extensive secondary developments which have taken place in the south-east of Tanzania may mean that full changes were completed very early and homogeneously there. My findings are in line with this.

3.5 *Reflexes of PB consonants *c and *j*

The previous section concerned the Ndengeleko reflexes of the reconstructed Proto-Bantu stops. Although Guthrie also reconstructed *c and *j as stops, it is known from other Bantu languages that these behave differently from other reconstructed stops, e.g. in Ganda *c is realised as [s] before all vowels, not only before *i (Hyman 2003a:57). The reconstruction of the phonetic values of *c and *j is therefore disputed; it has also been argued that the reconstruction of *s and *z should be reconsidered (Hyman 2003b:42; Schadeberg 2003b).

In Ndengeleko, the PB consonants *c and *j have been lost in many lexemes, even before vowels other than the highest ones:

Table 26 Loss of PB *c and *y/j in Ndengeleko

Ndengeleko			PB	English	
*c before *i					
<i>iimba</i>	/ø-imba/	(cl.9/10)	*cimbá	'lion'	HK
<i>lí-íó</i>		(cl.5)	*jícò	'eye'	AK
*c before other vowels					
<i>kw-iimba</i>	/ku-imba/		*cimb	'to dig'	AK
<i>-bíi</i>			*bíci	'unripe, hard'	AK
<i>mwáábi</i>	/mu-abi/	(cl.1)	*cábí DER	'trad. healer'	AK
<i>kwééka</i>	/ku-eka/		*cèk	'to laugh'	AK
<i>ø-óóbi</i>		(cl.9/10)	*còbí	'leopard'	HK
*j before *i					
<i>lí-íno</i>		(cl.5)	*jínò	'tooth'	HK
<i>lí-íyo</i>		(cl.5)	*jícò	'eye'	AK
<i>lwíiko</i>	/lu-iko/	(cl.11)	*jìkò	'spoon, ladle'	HN
<i>lí-ína</i>		(cl.5)	*jínà	'name'	AK
<i>mwii</i>	/mu-ii/	(cl.1)	*jìbí DER	'thief'	AK
<i>mwii</i>	/mu-ii/	(cl.3)	*jìci	'pestle'	AK
<i>-ípi⁵⁰</i>			*jìpi	'short'	AK
<i>mwíipwa</i>	/mu-ipwa/	(cl.1)	*jìpóá	'nephew'	AK
<i>kwíisa</i>	/ku-isa/		*jìj	'come'	AK
*j before other vowels					
<i>mwááli</i>	/mu-ali/	(cl.1)	*jádí	'young woman'	AK
<i>mwéei</i>	/mu-ei/	(cl.3)	*jédí DER	'moon'	AK
<i>bwóóga</i>	/bu-oga/	(cl.14)	*jógà	'fear'	AK
<i>moóyo</i>	/mu-oyo/	(cl.3)	*jòjò	'heart'	SS
<i>móóto</i>	/mu-oto/	(cl.3)	*jótò	'fire'	SM
<i>mwáána</i>	/mu-ana/	(cl.1)	*jánà	'child'	HK
<i>ngwáápa</i>	/N-kwapa/	(cl.9/10)	*jápà	'armpit'	SM

These consonants are not always lost in present day Ndengeleko, however, even preceding *i.⁵¹ As also seen in section 3.1 on the consonant inventory, *c can represent ø or [s], and *j can, apart from ø, represent [y], [s] and also [g]:

⁵⁰ The reconstructed last vowel *í has, maybe through vowel harmony, developed into a first degree *i* in Ndengeleko. This is expected to have taken place after spirantization and consonant loss, as we would otherwise expect the consonant *p* to be lost under influence of the high vowel.

⁵¹ So far, I have not come across any example preceding *u.

Table 27 Other reflexes of PB *c and *j in Ndengeleko

Ndengeleko		PB	English	
<i>ku-sók-a</i>		*còk	‘to wash’	HN
<i>máási</i>	/maa-sí/ (cl.6)	*jǐí	‘water’	AK
<i>kusééŋga</i>	/ku-senga/ (cl.5)	*jèng	‘to build’	SS
<i>líi-sána</i>		*jàná	‘day bf yesterday’	AK
<i>líi-soba</i>	(cl.5)	*jòbà ‘sun’	‘day’	SM
<i>kwíisa</i>	/ku-isa/ (cl.3)	*jǐj	‘to come’	AK
<i>moóyo</i>	/mu-oyo/ (cl.3)	*jòjò	‘heart’	SS
<i>ku-yíta</i>		*jít	‘to pour’	TO
<i>kuyíimba</i>	/ku-yimba/	*jím̩b	‘to sing’	AK
<i>ku-bóya</i>		*bój	‘to come back’	AK
<i>mbéyú</i>	/N-peyú/ (cl.9/10)	*-béjó VAR	‘seed’	HK
<i>ligéembe</i>	/li-gembe/ (cl.5)	*gèmbè	‘hoe’	HK

In conclusion, the reflexes of PB *c and *j are often \emptyset in Ndengeleko, as with the other obstruents. However, other reflexes are possible, which sets them aside from the stops.

3.6 Summary

In this chapter we have seen the high resemblance of the Ndengeleko consonant inventory to the system reconstructed for Proto-Bantu. The language has been affected by the historical process of spirantisation, and this has been followed by consonant loss. Therefore, in the contexts relevant for spirantisation, Ndengeleko is left with \emptyset where many other Bantu languages have fricatives or affricates.

We have also seen that the language allows for combinations of consonant plus glide, nasal plus obstruent, as well as nasal plus nasal (geminate). Nasal plus voiced obstruent combinations are underived stem-internally. Word-initially, however, they are the result of morpho-phonological processes, as are all the nasal plus voiceless obstruent and nasal plus nasal sequences. All of these possible outcomes are analysed as sequences in this work, not as unit segments.

4. *Vowels and syllables*

The Ndengeleko vowel system resembles the reconstructed system of Proto-Bantu, with seven vowels. This chapter discusses the following topics centred around the vowels. The vowel inventory is presented in 4.1, with examples of words containing each of the vowels. Phonologically long vowels are the subject of section 4.2. There is also vowel harmony in Ndengeleko, certain extensions harmonising their vowels to the vowel of the stem, as discussed in section 4.3. The syllable structure of Ndengeleko is outlined in 4.4 with examples of the different possible syllables. Vowel concatenation (4.5) at morpheme boundaries has a number of different outputs in Ndengeleko, one of which is a vowel sequence (4.5.1). The result is a long vowel when the two vowels are identical (4.5.2) or the result of assimilation (4.5.3). The third possible output is glide formation (4.6.1), which involves lengthening of the vowel and is therefore included in the section on lengthening (4.6). Other contexts where a length distinction cannot be established (because all vowels are long in such contexts) are pre-NC sequences (4.6.2) and monosyllabic stems (4.6.3). Long vowels are shortened in certain contexts, which are discussed in section 4.7.

4.1 *The vowel inventory*

Ndengeleko retains the seven vowel phonemes, long and short, that have been reconstructed for Proto-Bantu (Meeussen 1967): the three front vowels /i/, /ɪ/ and /e/, the three back vowels /u/, /ʊ/ and /o/, and central low /a/.

Figure 6 **The vowels of Ndengeleko**

i	u	ii	uu
ɪ	ʊ	ɪɪ	ʊʊ
e	o	ee	oo
a		aa	

Distinctive vowels in Bantu appear in the first root vowel -V₁, in the terminology of Guthrie (1967:43). Therefore, occurrences of the vowels in canonical CVC roots⁵² are listed first in this presentation of vowels. It will also be noted whether the vowel can occur elsewhere, i.e. in V₂ and beyond, as well as in affixes.

⁵² CVC roots are always followed by a final vowel, resulting in two-syllable stems.

In this section the vowels are presented one by one. The vowel /a/ is clearly distinguished from the other vowels and will be treated first. Thereafter, the sometimes hard to distinguish front vowels, and the equally clustered group of back vowels, are presented.

/a/

This is a low, central vowel.

68.	<i>ku-bába</i>		‘to be bitter’		AK
	<i>ku-bása</i>		‘to sharpen’		HK
	<i>ɲkála</i>	/mu-kala/	‘charcoal’	(cl.3)	SM
	<i>ku-kána</i>		‘to refuse’		HK
	<i>táya</i>		‘jaw’	(cl.9/10)	SS

The vowel occurs in many prefixes, in the final vowel (FV) of verbs and in final position in noun stems. It also occurs stem-internally in longer verb stems.

69.	<i>mwáálo</i>	/mu-alo/	‘reason, choice’	(cl.3)	AK
	<i>ku-péngala</i>		‘to get wet’		AK
	<i>ka-tééla</i>		‘small stick or tree’	(cl.12, dim)	AK
	<i>kwáka-a</i>	/ku-akala/	‘to be bad’		HK

We now turn to the front vowels and back vowels. The two highest vowels are [i] and [u]. The second highest vowels [ɪ] and [ʊ] are auditorily close to the highest vowels. They are referred to as ‘first degree’ and ‘second degree’ high vowels respectively, following recent Bantu tradition (Bastin 1983; Schadeberg 1995, 2003b; Mpiranya 1997). Certain speakers do not distinguish between seven vowels and appear to lower the second-degree high vowels [ɪ] and [ʊ] to mid-vowels [e] and [o]. This is an indication that the language is in the middle of an ongoing change from a seven towards a five vowel system. However, some speakers distinguish between seven vowels and minimal pairs can be found in the data.

For each group of vowels, minimal pairs are presented. Following this, the vowels are discussed one by one, in the environments in which they occur.

The front vowels

The following are some of the minimal pairs which can be found for the front vowels.

70.	a	<i>-píta</i>		‘grow, come out’		HK
		<i>-píta</i>		‘pass’		AK
		<i>-péta</i>		‘winnow’		HN
	b	<i>bííngi</i>	/ba-ingi/	‘many’	(of cl.2)	AK
		<i>bííngi</i>	/ba-ingi/	‘other’	(of cl.2)	AK
	c	<i>-íimba</i>	/-imba/	‘swell’		AK
		<i>-íimba</i>	/-imba/	‘dig’		AK
	d	<i>li-bíí</i>		‘it is/was’	(of. cl.5)	HK
		<i>li-bíí</i>		‘unripe’	(of. cl.5)	AK

/i/

Because of the historical processes of spirantisation and consonant loss described in 3.4, VC roots with *i* (a) are common in the language. However, CVC⁵³ roots (b) are found as well.

71.	a	<i>mwíito</i>	/mu-ito/	‘forest’	(cl.3)	AK
		<i>kwíika</i>	/ku-ika/	‘to arrive’		AK
		<i>ígo</i>		‘kidney’	(cl.9/10)	AK
		<i>mwííno</i>	/mu-ino/	‘salt’	(cl.3)	AK
	b	<i>mpípu</i>	/mu-pipu/	‘lazy person’	(cl.1)	AK
		<i>ku-bíína</i>		‘to be sick’		AK

/i/ occurs in affixes, at the end of words and in V₂:

72.	<i>ku-kálángika</i>	‘to be fried’	HK
	<i>ku-kémi</i>	‘to have called’	HK
	<i>ku-libíya</i>	‘to draw water’	SM

⁵³ One might expect spirantisation and consonant loss to have taken place with these CVC roots as well. Although more research is needed to substantiate this, I hypothesise that the words in CVC have entered the language at a later stage, after spirantisation and consonant loss took place.

/ɪ/

The second-degree vowel /ɪ/ occurs in canonical CVC roots.

73.	<i>ki-bíga</i>		‘cooking pot’	(cl.7)	AK
	<i>mbítɔ</i>	/N-pɪtɔ/	‘snake, sp’	(cl.9/10)	AK
	<i>ku-líla</i>		‘to cry’		AK
	<i>ku-píma</i>		‘to buy’		AK
	<i>ku-yíya</i>		‘to pour’		AK

The vowel also occurs in V₂ position, in mono-syllabic stems, word-finally and in the concord prefix of demonstratives.

74.	<i>nsíkɪsɪ</i>	/mu-sɪkɪsɪ/	‘oil palm’	(cl.3)	AK
	<i>ki-pɪlɪlɪ</i>		‘scorpion’	(cl.3)	AK
	<i>máásɪ</i>	/maa-sɪ/	‘water’	(cl.6)	AK
	<i>yí-no</i>		‘this’	(of cl.4, 8, 9/10)	HK
	<i>ki-bóɪɪ</i>		‘ratel’	(cl.7)	AK

/e/

The mid vowel /e/ occurs in CVC roots.

75.	<i>ku-léka</i>		‘to let, cease’		AK
	<i>mbésa</i>	/N-pesa/	‘hare’	(cl.9/10)	AK
	<i>ku-téma</i>		‘to cut’		SM
	<i>kyéélo</i>	/ki-yeelo/	‘winnowing basket’	(cl.7)	AK
	<i>nkéya</i>	/mu-keya/	‘left (side)’	(cl.3)	AK

The vowel occurs in V₂ position and in certain TAM affixes, as in the completive and the subjunctive.

76.	<i>kulééndéma</i>	/ku-lendema/	‘to shiver’	(cl.3)	AK
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77. *kutépengile*
 ku- te- pengile
 17SM- COMPL- get.wet.PFV
 ‘It has become wet.’ (AK-E)

78. *kene úyigalé*
 kene u- yigal -e
 NEG 2sSM- close -SUBJ
 ‘Don’t close!’ (AK-E)

The back vowels

The following minimal pairs are examples which can be found in the data:

79.	a	-túla		‘chase away’		HK
		-tóla		‘take away/down (of weight)’		AK
		-tóla		‘take, marry’		AK
	b	-púla		‘wash clothes’		HK
		-póla		‘pound’		AK
		-póla		‘cool down’		AK
	c	-úma		‘come from’		AK
		-óma		‘gather, pick’		AK
	d	-kúunda	/-kunda/	‘brush, polish’		HK
		-kóonda	/-kunda/	‘like, agree’		SM
	e	ηκόλο	/mu-kolo/	‘big brother’	(cl.1)	AK
		ηκόλο	/mu-kolo/	‘hen’	(cl.3)	AK
	f	nnóongo	/mu-longo/	‘brother, fellow’	(cl.1)	HK
		nnóongo	/mu-longo/	‘God’	(cl.1)	HK
	g	mbúgusu	/N-pugusu/	‘small firewood’	(cl.9/10)	SM
		mbógusu	/N-pogusu/	‘deaf person’	(cl.9/10)	SM
	h	wááko	/u-ako/	‘your’	(of cl. 1, 3, 14)	AK
		wááko	/u-ako/	‘which?’	(of cl.3, 14)	AK
	i	ηkúungu	/mu-kungu/	‘earthenware pot’	(cl.3)	AK
		ηκόongo	/mu-kongo/	‘small pan’	(cl.3)	HK
		ηkóongo	/mu-kongo/	‘tree’	(cl.3)	HK

/u/

As with the first degree front vowel /i/, many stops have been lost preceding the reflex of Proto-Bantu first degree *u, resulting in VC roots (a). CVC roots (b) do occur with u as well.

80.	a	<i>kyúúba</i>	/ki-uba/	‘chest’	(cl.7)	AK
		<i>ku-úba</i>		‘to fish’		AK
		<i>ka-úpa</i>		‘small bone’	(cl.12, dim)	AK
	b	<i>ki-búbu</i>		‘mute person’	(cl.7)	AK
		<i>li-púsi</i>		‘big goat’	(cl.5, aug)	AK
		<i>ku-púma</i>		‘to swim’		AK

The vowel also occurs in V(C) roots as well as beyond V₁, and in several affixes, e.g. the infinitive prefix:

81.	a	<i>líi-uu</i>		‘ashes’	(cl.5)	SM
		<i>ku-úna</i>		‘harvest’		HK
		<i>úla</i>		‘rain’	(cl.9/10)	AK
	b	<i>ku-lómya</i>		‘to get hurt’		AK

/o/

The second-degree vowel /o/ occurs in canonical CVC roots. It can also occur at the end of a word.

82.	<i>ku-póga</i>	‘to bath, play in water’		AK
	<i>ki-tóló</i>	‘blind person’	(cl.7)	AK
	<i>ku-lóma</i>	‘to bite’		HK
	<i>ki-yóni</i>	‘bird’	(cl.7)	AK
	<i>ku-lówa</i>	‘to tell’		AK
	<i>ku-bóya</i>	‘to return’		AK

The second degree back vowel also occurs in VC roots, beyond V₁, at the end of words. Just as with the front second degree vowel, /o/ occurs in the demonstrative concord.

83.	a	<i>oóbr</i>	‘leopard’	(cl.9/10)	AK
		<i>ku-sókotwa</i>	‘to rinse the mouth’		AK
		<i>ku-bótoka</i>	‘to run’		AK
		<i>u-yómó</i>	‘drought’	(cl.14)	AK
	b	<i>ló-lyó</i>	‘that’	(of cl.11)	AK

/o/

The mid back vowel occurs in CVC roots.

84.	<i>ngóbo</i>	/N-kobo/	‘banana’	(cl.9/10)	HN
	<i>ku-yósa</i>		‘to roast’		SM
	<i>li-kólo</i>		‘leaf vegetable’	(cl.5)	AK
	<i>ku-bóna</i>		‘to see’		AK
	<i>ku-kóya</i>		‘to tell’		AK

The vowel also occurs in VC roots as well as beyond V₁.

85.	a	<i>bwóoga</i>	/bu-oga/	‘fear’	(cl.14)	AK
		<i>li-kolomélo</i>		‘throat’	(cl.5)	AK
	b	<i>ukaando</i>	/u-kando/	‘soil’	(cl.14)	SM

It does not occur in many affixes, e.g. in the present disjoint TAM-marker *-n(d)ó*, where I hypothesize it is the result of coalescence of a+u, see section 10.6.1.

86.	<i>pandónuunga</i>				
	pa-	ando-	nung	-a	
	16SM-	PRES.DJ-	stink	-FV	
	‘It stinks here.’ (HK-E)				

To sum up, the following table gives an overview of the distribution of the different vowels in Ndengeleko. As is common in Bantu and is also reconstructed for PB (Schadeberg 2003b:147; Hyman 2003b:45), noun class markers and verbal extensions have a reduced vowel system lacking the third degree vowels /e/ and /o/. As already mentioned, these vowels occur in a limited set of other affixes. The second degree vowels occur in a limited way in prefixes, namely in the demonstrative concord.

Table 28 **Distribution of vowels in Ndengeleko**

	i	ɪ	e	a	o	ɔ	u
1st stem syll	x	x	x	x	x	x	x
final stem V	x	x	x	x	x	x	x
elsewhere	x	(x)	(x)	x	(x)	(x)	x

‘Elsewhere’ in the table refers to prefixes, extensions or stem-internal position (Hyman 2003b:45), and it is interesting to note that the vowels /i/, /a/ and /u/ can occur everywhere in the word while the other have a more limited distribution.

4.2 *Long vowels*

Ndengeleko vowels can be short or long. The sources of vowel length in Ndengeleko are the same as those that have been established in a Bantu comparative perspective (Hyman 2003b:48). Phonemically long vowels are discussed in this section. Long vowels can also be one of the results of vowel concatenation, when two identical vowels meet across morpheme boundaries (4.5.2) or in the case of assimilation (4.5.3). Processes of vowel lengthening are discussed in 4.6: from gliding and compensatory lengthening (4.6.1), from lengthening preceding a NC sequence (4.6.2), and from lengthening of monosyllabic stems (4.6.3). All long vowels are represented orthographically by two short vowels in this work, e.g. *aa* for a long, low central vowel.

A potential source of vowel length (Hyman 2003b:48), penultimate vowel lengthening, is not relevant for Ndengeleko. It occurs in most eastern and southern Bantu languages which have lost the vowel length contrast, but Ndengeleko still retains this vowel length contrast.

The Ndengeleko language distinguishes between long and short vowels, as evidenced by the following minimal pair.

87.	<i>-bika</i>	‘crow (cock)’	<i>*bik DER</i>	AK
	<i>-biika</i>	‘put’	<i>*biik DER</i>	AK

The following figures show the difference in length between the two vowels in the minimal pair. According to my measurements of vowels in many words, short vowels in Ndengeleko measure around 50-70 ms, and long and lengthened vowels measure from 100 ms. The long vowels can be much longer than that, however, up

to around 300ms, which is very long in a Bantu comparative perspective, cf. Hubbard (1995).⁵⁴

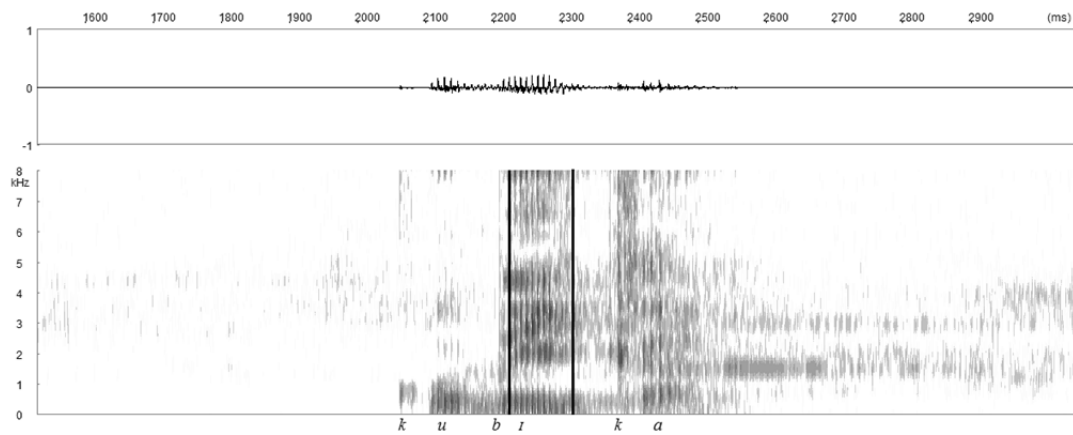


Figure 7 Spectrogram of *kubika* 'to crow'; vowel duration is 70ms

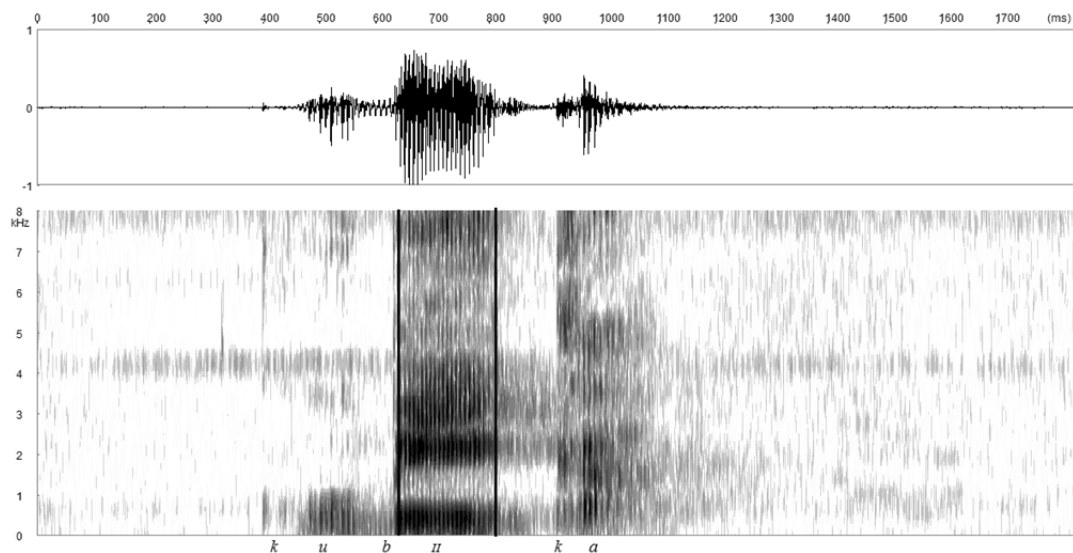


Figure 8 Spectrogram of *kubiika* 'to put'; vowel duration is 170ms

It is not unlikely that there are more minimal pairs, although these have not been established in the data.⁵⁵

⁵⁴ More details of vowel length are not included in this work but will have to await a more balanced phonetic study.

⁵⁵ Minimal pairs are not easily elicited, and it can be tricky to know if a speaker is eager to make you hear a difference, where there is actually only a semantic distinction. For example, AK claims a difference between *kene undole* 'don't look at me' from the verb *-lola* 'look' and *kene undoole* 'don't take me' from the verb *-tola* 'take'. I cannot hear the difference myself. Both vowels measure around 200 ms and the words have exactly the same pitch curve. Vowels differ a bit in formant measurements. Both are instances of /o/, however, considering their stems.

The distinction between long and short vowels was present in Proto-Bantu. Many of the stems with long vowels in Ndengeleko can be traced back to reconstructed stems with long vowels in the proto-language.

88.	<i>ma-béele</i>		‘breasts’	(cl.6)	<i>*béèdè</i>	HK
	<i>-lóóta</i>		‘dream’		<i>*dóot</i>	AK
	<i>-bóóka</i>		‘go’		<i>*bóók</i>	AK
	<i>-póóla</i>		‘pound’		<i>*póvd</i>	HK
	<i>-lééta</i>		‘bring’		<i>*déet</i>	TO
	<i>líino</i>		‘today’			HK
	<i>nkólooso</i>	/mu-kolooso/	‘cashew tree’	(cl.3)		AK
	<i>lu-téela</i>		‘stick’	(cl.11)		AK
	<i>ntóope</i>	/mu-toope/	‘stick of axe’	(cl.3)		AK
	<i>-sóóya</i>		‘strain’		<i>*còvc</i>	HN
	<i>tááti</i>		‘father’	(cl.1a)	<i>*tààtá</i>	AK
	<i>-tóola</i>		‘take’			AK

A further illustration of the underlying long vowels is given here with the example *ku-lóóta* ‘to dream’.

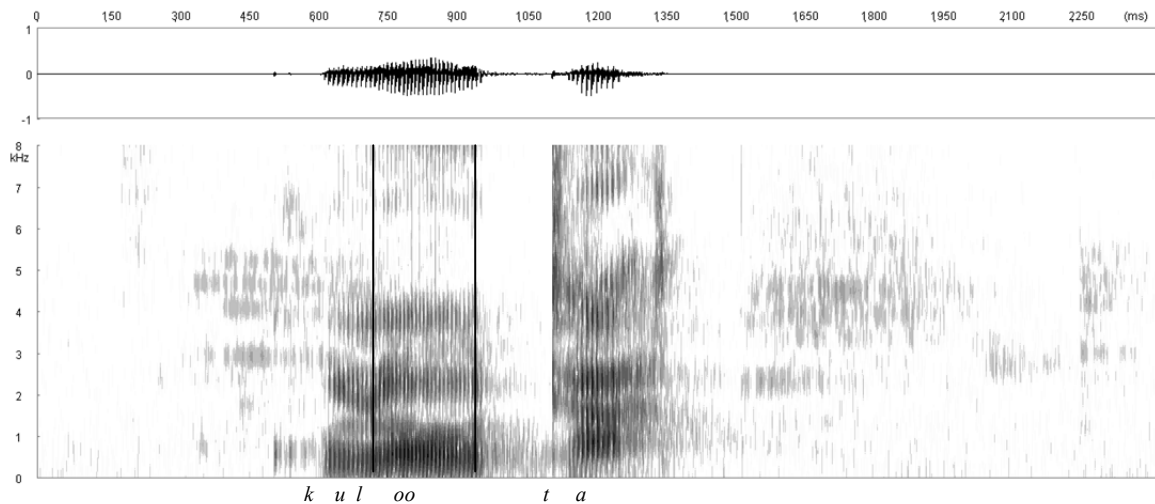


Figure 9 Spectrogram of *ku-loota* ‘to dream’, vowel duration is 200ms.⁵⁶

⁵⁶ On top of this, there is also a silence or pre-aspiration of 106 msec before the stop [t] sets in, which adds to the perception of length. Such silence preceding voiceless stops has been noted elsewhere and would be an interesting topic for further phonetic research.

Monosyllables

Monosyllabic stems are typically long in Ndengeleko. For certain of these stems, the source of their length comes from the historical processes of spirantisation and consonant loss (see section 3.4). This becomes evident when we compare these stems with their PB counterparts:

89.	<i>mwíi</i>	/mu-ii/	‘thief’	(cl.1)	* <i>jìbì</i>	AK
	<i>li-bíi</i>		‘unripe’		* <i>bìcì</i>	AK
	<i>lwíi</i>	/lu-ii/	‘river’	(cl.11)	* <i>jìjì</i>	AK
	<i>mwíi</i>	/mu-ii/	‘pestle’	(cl.3)	* <i>jìcì</i>	AK

These long vowels thus originate from PB two syllable stems, wherein consonants have been lost in Ndengeleko.

Other instances of long vowels

A group of class 5 nouns have a long prefix *lii-*. A two-syllable stem is HH. In case of a monosyllabic stem, the prefix is high.

90.	<i>lii-sóbá</i>		‘sun, day’	(cl.5)	SM
	<i>líi-uu</i>		‘ashes’	(cl.5)	SM

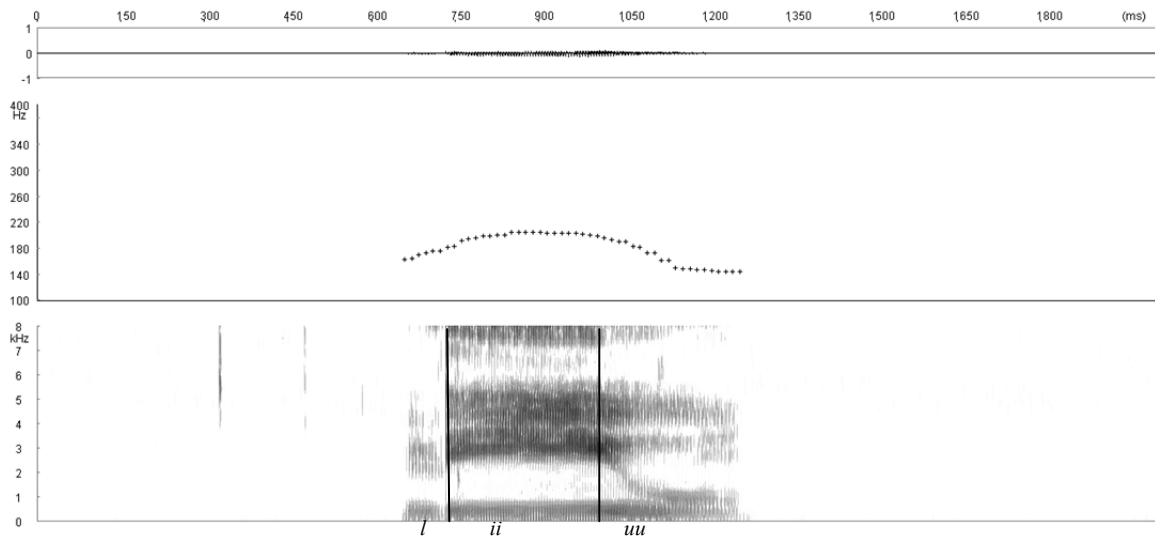


Figure 10 Spectrogram of *lí-uu* 'ashes', vowel duration is 300ms

See section 5.4 on noun class 5 for further examples. There are a few other examples of long prefix vowels in Ndengeleko, for example in *máá-sí* 'water' (cl.6), but this does not appear to be regular for a group of nouns as in class 5.

The first vowel in the perfective suffixes in *-iile* and *-iiCe* is long.

91. *nnóóngv abíile*

mu- longv a- b- iile
 1- God 1SM- be-PFV
 'God exists' (HK-E)

92. *-tóliike*⁵⁷ /-tɔl-ii-k-e/ 'break' (intr)

PK

Moreover, the perfective suffix in *-i* is also analysed as underlyingly long, just like the vowel *i* in *-iile*.

93. *aabíi múundu...*

a- a- b- ii mu- ndu
 1SM- PST- be-PFV 1- person
 'there was a man...' (TO-S)

⁵⁷ This is an imbricated form, from the verb *-tólíka* 'break'.

The consonant in the imbricated perfective suffix *-iiCe* can be *k*, resulting in *-iike*. This makes the suffix similar to the perfective *-ike*. The imbricated suffix is long, however, and *-ike* is not.

94. *koloóso ikálángiike*

ø- kolooso i- kalangike
 9/10-cashew 9/10SM- be.fried.PFV
 ‘The cashew is (ready) roasted.’ (HK-E)
 (cf. *-kálángika* ‘be fried’)

95. *Nitweti niléengike.*

ni- tweti ni- leng -ike
 1sSM- take.PFV 1sSM- peel -PFV
 ‘I take it and peel it.’ (HN-D)
 (cf. *-lenga* ‘peel’)

4.3 Vowel harmony

As is common in Bantu languages (Hyman 1999), the vowels in certain verbal extensions in Ndengeleko harmonise with the vowel of the stem.

The applicative extension *-i(l)-* appears as *-e(l)-* following a syllable with the mid vowels *e* or *o* (examples in 96a). The causative *-iy/-ey-*, which is analysed as a combination of the applicative and the causative suffixes, shows vowel harmony, (b) as well as the suffix *-ik-* (c). See chapter 8 for extensions.

96.	<i>a</i>	<i>-yogéelya</i>	/-yog-ɪl-ɪ-a/	‘swim’	AK
		<i>-tópea</i>	/-top-ɪ-a/	‘burden, annoy’	HK
	<i>b</i>	<i>-bókiya</i>	/-buk-ɪ-i-a/	‘return’ (tr)	AK
		<i>-yíkítiya</i>	/-yíkɪt-ɪ-i-a/	‘agree’	AK
		<i>-yólokeya</i>	/-yolok-ɪ-i-a/	‘add’	AK
		<i>-góbika</i>	/-gob-ɪk-a/	‘cover’	AK
	<i>c</i>	<i>-téleka</i>	/-tel-ɪk-a/	‘cook’	SM
		<i>-béleka</i>	/-bel-ɪk-a/	‘give birth’	AK

4.4 Syllable structure

The syllable can be defined as the unit in the word that is capable of receiving stress or tone (Batibo 2000:175). In Ndengeleko, the nucleus of the syllable can consist of a vowel or a nasal. If there is an onset, it consists of a consonant (C) or a

consonant + glide sequence (CG). The consonant in CV and CG can be a nasal. In CG it can also be another glide, in the combination *yw*. Onset-less syllables consisting of only a long or short vowel are common, due to historical processes of consonant loss as explained in section 3.4. In Ndengeleko, a coda is also possible in CVN syllables. This gives the following possibilities:

- N syllables with moraic nasal
 (C)V(V) open syllables
 (C)V(V)N closed syllables
 (C)GV(V)(N) syllables with onset G

The different syllables are exemplified in Table 29. Syllables are separated by a dot.

Table 29 Possible syllables in Ndengeleko

Syllable	Example	Morpheme structure	Translation		
N	<i>η.kán.wa</i>	/mu-kanwa/	‘mouth’	(cl.3)	AK
	<i>ni.ń.mwee.ni</i>	/ni-mu-bweni/ 1sSM-1OM-see.PFV	‘I have seen him/her’		SS
V	<i>á.ga</i>	/a-ga/	‘these’	(of cl.6)	HK
	<i>í.go</i>	/ø-igo/	‘kidney’	(cl.9/10)	AK
VV	<i>ii.kó.ńo.lo</i>	/ii-kɔŋɔlo/	‘elbows’	(cl.8)	AK
	<i>ka.úu</i>	/ka-uu/	‘white’	(of cl.12)	AK
CV	<i>-pí.ta</i>	/-pít-a/	‘pass’		AK
	<i>bó.ko.bó.ko</i>	/ ø-bokoboko/	‘banana stew’	(cl.9/10)	HN
CVV	<i>-yí.gii.lwe⁵⁸</i>	/-yig-ii-l-ɔ-e/	‘has been closed’		AK
	<i>líi.o</i>	/li-io/	‘eye’	(cl.5)	AK
VN	<i>-án.di.ke</i>	/-and-i-k-e/	‘has written’		AK
VVN	<i>úń.ga.no</i>	/i-ingano/	‘heels’	(cl.8)	SM
CVN	<i>-té.peń.ga.la</i>	/-tepengal-a/	‘get wet’		AK
	<i>-lón.gee.la</i>	/-longeel-a/	‘speak’		TO
CVVN	<i>kíń.ga.no</i>	/ki-ingano/	‘heel’	(cl.7)	SS
	<i>lu.tóń.dwa</i>	/lu-tondwa/	‘star’	(cl.11)	AK
GV	<i>tu.yó.mwii.le</i>	/ni-yomo-iile/	‘I am finished’		HN
	<i>ki.wóo</i>	/ki-wo/	‘death’	(cl.7)	AK
GVV	<i>waa.bwéé.ni</i>	/u-a-a-bweni/ 2sSM-PST-2OM-see.PFV	‘you have seen them’		SS
	<i>-yóóń.ge.ya</i>	/-yongey-a/	‘increase’		AK

⁵⁸ This is a passive imbricated perfective of *-yígala* ‘close’. For imbrication see section 10.8.3.

GVVN	<i>yíím.ba</i>	/-yimb-a/	‘sing’		AK
	<i>-pyó.ya</i>	/-pyoy-a/	‘heat up’		AK
CGV	<i>li.súúŋ.gwa</i>	/li-sungwa/	‘orange’	(cl.5)	HK
	<i>ku.ím.í.ywa</i>	/ku-imiy-ó-a/	‘to be put out (fire)’		AK
GGV	<i>ywáá.kó</i>	/yu-aku/	‘which’	(of cl.1)	AK
GGVV	<i>ywáa</i>	/yo-aa/	‘that’	(of cl.1)	HK
	<i>ywéem.be</i>		‘s/he’		AK
GGVVN	<i>bwíi</i>	/bu-ii/	‘earth, land’	(cl.14)	SM
CGVV	<i>m.bwáa</i>	/N-pwaa/	‘dog’	(cl.9/10)	HK
	<i>ŋ.kwáan.da</i>	/mu-kwanda/	‘aardvark’	(cl.3)	AK
CGVVN	<i>lyím.bwa</i>	/li-imbwa/	‘hole’	(cl.5)	AK
	<i>ma.gééŋ.ge</i>	/ma-genge/	‘pumpkin’	(cl.6)	AK
NV	<i>-bí.na</i>	/-bij-a/	‘hurt, be ill’		AK
	<i>ŋó.ŋó.twa</i>	/N-gonotwa/	‘big bee’	(cl.9/10)	AK
	<i>ki.nééŋ.gwe</i>	/ki-nengwe/	‘crocodile’	(cl.7)	SM
NVVN	<i>n.nwá.wa</i>	/mu-lwawa/	‘woman’	(cl.1)	HK
NGV	<i>-ló.mya</i>	/-lomya/	‘get hurt, feel pain’		AK
	<i>-ŋwáa</i>	/-ŋwaa/	‘drink’		AK
NGVV	<i>u.yó.mwii.ke</i>	/u-yomo-ii-k-e /	‘is finished’	(of cl.14)	AK

As mentioned in section 1.4, Ndengeleko follows the general Bantu pattern of building its words around a CVC root, resulting in a frequent occurrence of CV syllables. However, due to the historical processes of spirantisation and consonant loss, as discussed in section 3.4, vowel-initial syllables are also common. This leads to vowel concatenation across morpheme boundaries. Moreover, the possibility of NC and CG sequences adds to the variety of the Ndengeleko syllable structure.

N is a homorganic nasal reduced from *mu-* or *ni-*, as shown in section 3.3.2. In nouns, these are word-initial, deriving from class 1, 3 and 18 prefixes. Syllabic nasals also occur pre-stem for verbs, where they derive from the object marker *mu-* (cl.1) or the subject marker *ni-* (1s).

In section 3.3.1, I argued for the sequence analysis of NC. The nasal in NC sequences belongs to the coda of the CVN syllable.

Sequences of consonant and glide (CG) are syllabified in the onset, as seen in Table 29. Other sequences of consonants are disallowed. We see this for example in the loan *nsílaamu* /mu-silamu/ ‘moslim’ (cl.1) from Swahili *mw-islamu*. The fricative *s* and the vowel *i* have changed position in order to maintain Ndengeleko phonotactics.

In Bantu languages, divergences in surface pitch can be understood in terms of the distribution of ‘primary’ High tones and their surface modifications (Kisseberth and Odden 2003:59). There is as yet no analysis of the distribution of

tones in Ndengeleko. Partial reduction of tonal distinctions for the whole of the P10 group was indicated by Guthrie (1967 p.56, p.69). Odden (1996:3) includes a brief analysis of Ndengeleko tone and concludes that possible contrasts in the position of H tone are highly limited. Surface high pitched syllables have been marked with an acute accent in this work. Following the definition by Hyman (2001): ‘A language with tone is one in which an indication of pitch enters into the lexical realisation of at least some morphemes’, I conclude that this holds for Ndengeleko. Due to time constraints, however, it has not been possible to provide a complete analysis of the Ndengeleko tonal system in this work. Therefore, any conclusions about the regularities of tone realisations will have to await further research.

4.5 *Vowel concatenation*

Due to the historical sound changes spirantisation and consonant loss, vowel-initial stems are not uncommon in Ndengeleko. When morphemes meet and such vowel-initial stems are preceded by (C)V- prefixes, or stems ending in vowels are followed by -V(C) suffixes, we see the following results:

- A vowel sequence: when the quality of the vowels differs and the first vowel is not *i*, *ɪ*, *ʊ* or *u*, e.g. *atéoma* /a-te-oma/ ‘he has gathered’ (see section 4.5.1).
- Desyllabification, glide formation and lengthening: when the quality of the vowels differ and the first vowel is one of the high vowels *i*, *ɪ*, *ʊ* and *u* e.g. *kwáándikwa* /ku-andik-u-a/ ‘to be written’ (see section 4.6.1). Moreover, the first vowel should not be long, see section 4.7.2.
- A long vowel: when the vowels are identical, e.g. *máámbi* /ma-ambi/ ‘mat’ (cl.5) (see section 4.5.2).
- Assimilation: when a concord prefix in *Ca-* (consonant + *a*) is followed by a vowel-initial adnominal, e.g. *bóóte* /ba-ote/ ‘all’ (of cl.2), and in some other contexts (see section 4.5.3).

4.5.1 Sequences of vowels

Vowel concatenation results in a vowel sequence when the quality of the vowels differ and the first vowel is not *i*, *ɪ*, *o* or *u*, e.g. *a-úu* ‘white’ (of cl.1). For further examples see Table 30.

Vowel sequences also occur stem-internally. These sequences are the result of consonant loss, as for example *ndéu* /N-leu/ ‘beard’, PB **-dèdù*.

97.	<i>mwéei</i> ⁵⁹	/mu-ei/	<i>*jédi</i>	‘moon’	(cl.3)	AK
	<i>ma-jéi</i>			‘grass’	(cl.6)	HK
	<i>ki-léu</i>			‘chin’	(cl.7)	AK
	<i>aíma</i>			‘easily’		HK
	<i>baai</i>			‘only’		HK
	<i>máav</i>			‘mother’	(cl.1a)	AK
	<i>aláu</i>			‘ant’	(cl.9/10)	AK
	<i>lu-báu</i>		<i>*bàdù</i>	‘rib’	(cl.11)	SS
	<i>-táúna</i>		<i>*táku</i>	‘chew’		TO
	<i>maúkaúka</i>			‘early morning’		SM
	<i>lyóói</i>	/li-oi/	<i>*jóki VAR</i>	‘smoke’	(cl.5)	SM
	<i>ki-ndóói</i>			‘squirrel’	(cl.7)	HK

The historical processes causing consonant loss were discussed in section 3.4.

4.5.2 Long vowels across morpheme boundaries

At morpheme boundaries, where the vowel of the prefix and the vowel of a vowel-initial stem are identical, a long vowel is the result.

98.	<i>lí-ína</i>		‘name’	(cl.5)	AK
	<i>kí-ìngáno</i>		‘heel’	(cl.7)	SM
	<i>i-íti</i>		‘chairs’	(cl.8)	HK
	<i>káána</i>	/ka-ana/	‘small child’	(cl.12, dim)	PK
	<i>bá-áli</i>		‘young girls’	(cl.2)	AK
	<i>bá-ábɪ</i>		‘trad. healers’	(cl.2)	AK

⁵⁹ Synchronically the vowel sequence in *mwéei* is morpheme-internal, although diachronically there is a nominalising suffix *-i*, already present in PB. See section 3.4.3.

<i>mi-ípi</i>		‘short’	(of cl.4)	AK
<i>múu</i>	/mu-uu/	‘white’	(of cl.1)	AK
<i>káakɔ</i>	/ka-akɔ/	‘which’	(of cl.12)	AK
<i>bá-áke</i>		‘his’	(of cl.2)	PK

As an illustration, Figure 11 shows the length of the vowel *ii* in *li-ína* ‘name’. The length of the vowel is approximately 240 msec. Vertical lines in the picture indicate the start and the end of the vowel.

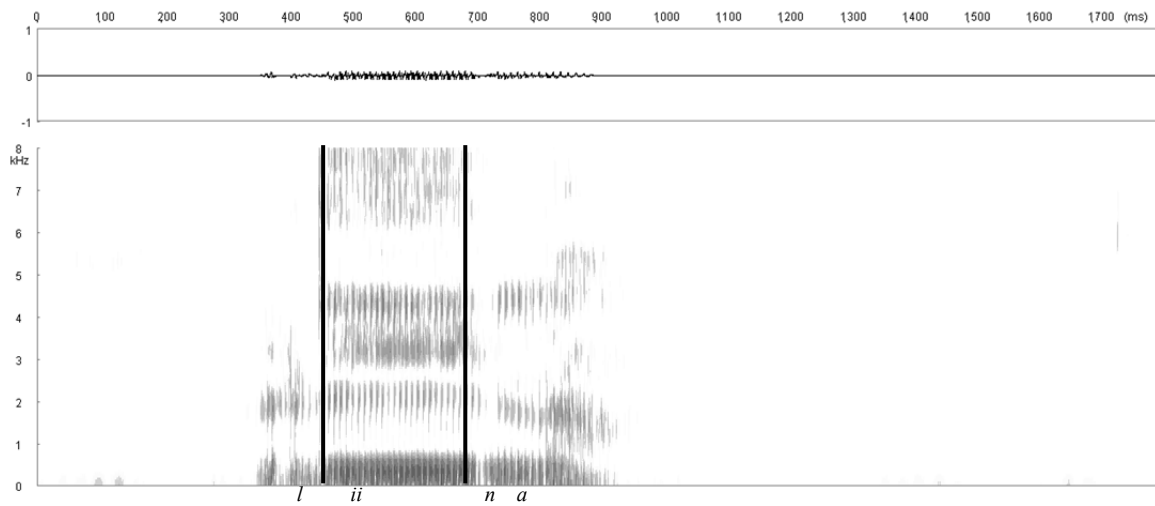


Figure 11 Spectrogram of *li-ina* ‘name’

One of the contexts where vowel concatenation takes place is where a subject or an object marker is followed by a vowel of the same quality. This vowel can belong to a vowel-initial stem, but can also be another affix.

99. *aándika balúa*

a- andik -a ø- balua
 1SM- write -FV 9/10-letter(Sw)
 ‘S/he is writing letter(s).’ (AK-E)

100. *u-úma kwáákɔ?*

u- uma kwakɔ
 2sSM- come.from where
 ‘Where do you come from?’ (HK-E)

101. *u-ni-índikiy-e*

u- ni- indikiy -e
 2sSM- 1sOM- accompany -SUBJ
 ‘You should accompany me.’ (TO-S)

102. *paawí íimba*

pa- a- w -ii ø- imba
 16SM- PST- die-PFV 9/10-lion
 ‘Here died a lion.’ (AK-E)

103. *aampáya ngokó Salíma*

a- a- mu- pay -a N- kókó Salíma
 1SM- FUT- 1OM- give.to -FV 9/10-hen Salíma
 ‘S/he will give Salíma a hen.’ (AK-E)

See below for contexts where the vowel of the SM assimilates to the vowel of a following affix.

4.5.3 *Vowels across morpheme boundaries + assimilation*

In certain specific contexts in the language, concatenation of vowels with different quality does not lead to vowel sequences or glide formation, rather there is regressive assimilation of the prefix vowel.

One of these contexts is when a concord prefix ending in the low vowel (i.e. cl.2 *ba-*, cl.6 *ga-*, cl.12 *ka-*, cl.16 *pa-*) precedes a vowel-initial adnominal. The result is a long vowel of the same quality as the stem-initial vowel:

104.	<i>péene</i>	/pa-ene/	‘the place itself’	(of cl.16)	SM
	<i>gííngi</i>	/ga-ingi/	‘other’	(of cl.6)	AK
	<i>bííngi</i>	/ba-ingi/	‘many’	(of cl.2)	AK
	<i>kéene</i>	/ka-ene/	‘itself’	(of cl.12)	AK
	<i>píínó</i>	/pa-inó/	‘your (pl)’	(of cl.16)	AK

Following the fricative *s* in the concord of class 7, the vowel of the concord prefix assimilates to the initial vowel of the modifier. In the terminology of Hyman (2003b:48), the prefixed vowel is being ‘absorbed’ by certain consonants, instead of turning into the expected glide.

105. *sááŋɔ* /si-angɔ/ ‘my’ (of cl.7) HN
sáákɔ /si-akɔ/ ‘which’ (of cl.7) AK

Vowel concatenation and assimilation across morpheme boundaries also takes place when the 1st person subject marker *ni-* or the 3rd person⁶⁰ subject marker *a-* are followed by a V affix (consisting of a vowel only).

106. *eeándika balúa*

a- e- andik -a ø- balua
 1SM- FUT- write -FV 9/10-letter(Sw)
 ‘S/he will write letter(s).’ (AK-E)

107. *naabángike báána*

ni- a- a- bang -ike ba -ana
 1sSM- PST- 2OM- hit -PFV 2 -children
 ‘I beat the children.’ (AK-E)

108. *naakááliya*

ni- a- kaaliy -a
 1sSM- FUT- be.angry -FV
 ‘I will become angry.’ (AK-E)

109. *neempá nkéka*

ni- e- mu- p -a mu- keka
 1sSM- FUT- 1OM- give -FV 3NCP- mat
 ‘I will give him/her a mat.’ (AK-E)

A noun class prefix does not assimilate to the vowel of a vowel-initial stem, as a rule. However, there are some exceptions to this with a NCP ending in *a*. This is an exhaustive list of examples in the data:

110. *míto*⁶¹ /ma-io/ ‘eyes’ (cl.6) **jícò* SS
*bíí*⁶² /ba-ii/ ‘thieves’ (cl.2) **jíbì* AK
móóli /ma-oli/ ‘tears’ (cl.6) **códì* COMP HK

⁶⁰ I.e. the subject marker of noun class 1, glossed as 1SM.

⁶¹ The plural of this example has an alternative form [miipɔ]. In fact, 3 out of 4 speakers in the recordings of this plural say [miipɔ]. It is at this point unclear why there is a nasal in this word. There is no such alternation in the singular.

⁶² Compare *bii* ‘thieves’ with the same plural in Matuumbi, where this assimilation has not taken place: *ba-í* ‘thieves’ (Odden 1996:25).

<i>míino</i>	/ma-ino/	‘teeth’	(cl.6)	*jínò	HK
<i>bíipwa</i>	/ba-ipwa/	‘nephews’	(cl.2)	*jìpóá	AK

A *mu-* NCP followed by a vowel-initial stem usually results in glide formation, as in *mwáánza* /mu-anza/ ‘journey’ (cl.3). In the following two examples, however, vowel assimilation takes place:

111.	<i>móoto</i>	/mu-oto/	‘fire’	(cl.3)	*jótò	SM
	<i>moóyo</i>	/mu-oyo/	‘heart’	(cl.3)	*jojo	SS

Assimilation appears to be restricted to the stem-initial vowel *o*. We see the same in other Bantu languages, such as Swahili (Ashton 1944:23) and Makonde, where it is also restricted to stem-initial *o* (Kraal 2005:84).

In a verb stem ending in a front vowel⁶³, followed by any suffix with an initial *-i* (i.e. the perfective *-ii*, *-iiCe*, *-ike* or *-iile*), the vowel of the verb stem assimilates to the high vowel of the suffix.

112. *ba-líi swáala*

ba- lɪ -i ø- swaala
 2SM- eat -PFV 9/10-gazelle(Sw)
 ‘They have eaten gazelle.’ (HK-E)

113. *undópiile*

u- ni- tope -iile
 2sSM- 1sOM- annoy -PFV
 ‘You are annoying me.’ (HK-E)

114. *niyíngii nyómba*

ni- yingɪ -i mu- N- yomba
 1sSM- enter -PFV 18NCP- 9/10NCP- house
 ‘I have entered the house.’ (HN-D)

Following the applicative *-i-*, the form of the subjunctive is *-i*, and the result is a high vowel.

⁶³ In the case of a verb stem ending in a back vowel, glide formation takes place, and in the case of a low vowel *a*, a vowel sequence is the result.

115. *uɣɣíti*

u-	mu-	yiti	-i
2sSM-	1OM-	pour.onto	-SUBJ
'Pour (it) onto him/her.' (TO-S)			

Table 30 summarises the results of vowel concatenation in Ndengeleko. The first vowel of the sequence is listed vertically, and the second vowel of the sequence horizontally. Glide formation is discussed in 4.6.1.

A hyphen (-) in a table cell indicates that this combination is not possible or unlikely. A (x), on the other hand, indicates that this combination is not found in the data, but is assumed to exist. For example, any vowel-initial verb stem can potentially be preceded by the TAM *andó-* or the TAM *té-*, resulting in vowel sequences. On the other hand, second degree vowels do not occur in prefixes, except in demonstratives. Therefore, combinations with these vowels as the first in the sequence are not always possible or likely.

Note also that in some cases the outcome depends on the prefix involved, as described in this section on assimilation. Not all possible outcomes are listed in the table.

Table 30 Sequences of vowels across morpheme boundaries

	i	ɪ	e	a	o	ɔ	u
i	<i>ki-imbwi</i> 'hyena' (cl.7) ⁶⁴	<i>lyínza</i> 'big girl' (cl.5, der) /li-mza/	<i>lyéembe</i> 'mango fruit' (cl.5) /li-embe/	<i>lyáambi</i> 'mat' (cl.5) /li-ambi/	<i>lyóói</i> 'smoke' (cl.5) /li-oi/	<i>lyógolo</i> 'ant-hill' (cl.5) /li-ogolo/	<i>nyúúma</i> 'I come from' /ni-um-a/
ɪ	<i>-bíi-i</i> 'put-PFV'	uyógeeli 'you should swim' /u-yogeeli - i/	-	<i>-yógeelya</i> 'swim' /yogeel-r-a/	-	-	-
e	<i>n-e-imiy-a mooto</i> 'I will put out the fire'	<i>atéumba</i> 's/he has dug' /a-te-imb-a/	x	x	<i>ne-óbey-a</i> 'I will lose (sth)'	<i>a-te-óm-a</i> 'he has picked'	x
a	(<i>pandu</i>) <i>pá-ípi</i> 'nearby (place)'	<i>aíimba</i> 's/he digs' /a-imb-a/	<i>a-ék-a lwáála</i> 'she laughs (a laugh)'	<i>ma-átó</i> 'big pythons (aug)' (cl.6)	<i>kene bá-obeel-e</i> 'they should not play'	<i>ka-ólo</i> 'small waterpot' (cl.12, dim)	<i>ma-úu</i> 'white' (of cl.6)
u	<i>wíike</i> 'you have arrived' /u-iike/	<i>kwíimba</i> 'to dig' /ku-imb-a/	<i>kwééka</i> 'to laugh' /ku-ek-a/	<i>lwáága</i> 'head-board' (cl.11) /lu-aga/	<i>kwóóba</i> 'to disappear' /ku-ob-a/	<i>ku-ómb-a</i> ⁶⁵ 'to jump'	<i>lí-úwa</i> 'open space' (cl.11)
ɔ	<i>ni-bóó-i</i> 'I have returned'	-	<i>nigólwe</i> 'I should wash' /ni-golo-e/	<i>-pulwa</i> 'strip off' /-pulo-a/	-	-	-
o	<i>ki-bóó-i</i> 'it has rotted' (of cl.7)	x	<i>andó-ek-a</i> 'she is laughing'	<i>andóákala</i> 's/he is bad' /a-ando-akal-a/	x	x	<i>li-bóó-u</i> 'rotten' (of cl.5)

4.6 Lengthening

As a general rule, a vowel quantity opposition cannot be established preceding a NC and after CG sequences, as vowels are always long in those positions (unless

⁶⁴ We know that this vowel is long, and not just pre-NC lengthened. The stem is evident in the derived class 12 noun *ka-imbwi* 'small hyena'.

⁶⁵ There is no glide formation in this word. Maybe the two vowels are assimilated, but this is difficult to hear.

they undergo shortening) in Ndengeleko and in many Bantu languages (Meeussen 1979).

4.6.1 *Gliding and compensatory lengthening*

Apart from the consonant glide combinations (CG) which stem from the reconstructed sequences of consonant plus vowels (CVV) in PB (see section 3.2), there are CG sequences in the language which are derived through the synchronic process of glide formation. This process involves optional desyllabification of a high vowel *i*, *ɪ*, *ʊ* or *u*, followed by another vowel, so that the first vowel becomes a glide. There is also compensatory lengthening of the following vowel – a well-known Bantu phenomenon (Hyman 2003b:48). This lengthening does not take place at the end of polysyllabic words. The compensatory lengthening is generally analysed as the mora of the first vowel disconnecting and being transferred to the second vowel; see for example Hyman (1985) and Odden (1996:119).

116.	<i>ywííngɪ</i>	/yu-ɪngɪ/	‘another’	(of cl.1)	AK
	<i>yéene</i>	/i-ene/	‘it(self)’	(of cl.4, 8, 9/10)	HK
	<i>yúu</i>	/i-uu/	‘white’	(of cl.8)	AK
	<i>ulyáa</i>	/u-lɪ-a/	‘to eat’		AK
	<i>mwaáɓɪ</i>	/mu-abi/	‘sorcerer/bad person’	(cl.1)	AK
	<i>mwáámbo</i>	/mu-ambo/	‘song’	(cl.3)	HK
	<i>myáanza</i>	/mi-anza/	‘journeys’	(cl.4)	AK
	<i>myúúpa</i>	/mi-upa/	‘bones’	(cl.4)	AK
	<i>lyáána</i>	/li-ana/	‘big child’	(cl.5, aug)	AK
	<i>kyúúba</i>	/ki-uba/	‘chest’	(cl.7)	SM
	<i>kyúúpa</i> ⁶⁶	/ki-upa/	‘bone’	(cl.7)	AK
	<i>yúúba</i>	/i-uba/	‘chests’	(cl.8)	AK
	<i>lwáala</i>	/lu-ala/	‘laugh’	(cl.11)	AK
	<i>bwóóga</i>	/bu-oga/	‘fear’	(cl.14)	AK

⁶⁶ That the resulting vowel is long due to compensatory lengthening can be seen when we compare with the alternative plural of this noun, which is *ma-upa* ‘bones’ (cl.6), with a short vowel.

<i>kwíisa</i>	/ku-isa/	‘to come’	AK
<i>kubélékwa</i>	/ku-belek-u-a/	‘to be born’	AK
<i>kugálaambwa</i>	/ku-galamb-u-a/	‘to turn (inside out), change your mind’	HN

The morphological process of imbrication also provides a context for glide formation, in the case where the perfective suffix *-iCe* is preceded by a back vowel. Imbrication is discussed in more detail in section 10.8.3. In the following example, the stem of the verb is *-tómboka* ‘fall’.

117. *mitééla ya ηηéni itómbwiike*

mi-teela i- a mu- geni i- tómbwiike
 4- tree 4Cd- of 1- visitor 4SM- fall.PFV
 ‘The trees of the visitor fell.’ (PK-E)

Glide formation does not take place when the first vowel is long, as in *líio* ‘eye’. Vowels are not lengthened after all glides, but only when there is post-consonantal glide formation. For instance, in *ki-yóni* ‘bird’ (cl.7), the vowel *o* is not long.

4.6.2 *Lengthening preceding nasal consonant (NC)*

Vowels are lengthened preceding NC sequences, one of the other sources of vowel length in Bantu languages, as discussed by Hyman (2003b:48). Also, for PB, ‘no contrastive vowel length is reconstructable preceding pre-nasalized consonants’ (Schadeberg 2003b:147). This is a very productive process in Ndengeleko. The length of the pre-NC lengthened vowels measures in the range 170-200ms.

118.	<i>íingo</i>	/ø-ingo/	‘neck’	(cl.9/10)	HK
	<i>íimba</i>	/ø-imba/	‘lion’	(cl.9/10)	HK
	<i>ugíimbi</i>	/u-gimbi/	‘beer’	(cl.14)	AK
	<i>kubíinga</i>	/ku-binga/	‘to chase away’		AK
	<i>ndéembo</i>	/N-tembo/	‘elephant’	(cl.9/10)	SM
	<i>magéénge</i>	/ma-genge/	‘pumpkins’	(cl.6)	AK
	<i>páandu</i>	/pa-ndu/	‘place’	(cl.16)	AK
	<i>matómóondo</i>	/ma-tomondo/	‘hippopotamus’	(cl.6)	SM
	<i>kukúombwa</i>	/ku-kumbwa/	‘to hit’		AK
	<i>úúngo</i>	/ø-ungo/	‘civet’	(cl.9/10)	AK
	<i>kibómóondwa</i>	/ki-bomondwa/	‘lizard’	(cl.7)	AK

Post-lexical lengthening takes place when a vowel at the end of a word is followed by an initial NC in the next word.⁶⁷

119. *ηgalabáa ηgólɔ*

N- kalaba N- kɔlɔ
 9/10-canoe 9/10NCP- big
 ‘big canoe’

120. *ndíláa mbána*

N- lɪla N- pana
 9/10-path 9/10NCP- broad
 ‘a broad path’

Lengthening also takes place when a NC-initial noun takes a locative prefix.

- | | | | | | |
|------|------------------|-------------|-------------------|---------|----|
| 121. | <i>nsápwa</i> | /mu-sapwa/ | ‘corridor’ | (cl.3) | AK |
| | <i>páansápwá</i> | /pa-nsapwa/ | ‘in the corridor’ | (cl.16) | AK |

122. *Niyíyíile múuηgóbó*

ni- yɪy -iile mu- N- kobo
 1sSM- put -PFV 18NCP- 9/10-banana
 ‘I have put (it) in the banana (stew).’ (HN-D)

4.6.3 Monosyllabic stems

Monosyllabic stems are long in words where consonant loss has taken place, as seen in 4.2. Other monosyllables, where there is no indication of consonant loss, are also long.⁶⁸ These vowels will be represented as long.

- | | | | | | |
|------|---------------|----------|-----------|-----------|----|
| 123. | <i>li-úu</i> | | ‘white’ | (of cl.5) | AK |
| | <i>ki-wóo</i> | | ‘death’ | (cl.7) | AK |
| | <i>mbáa</i> | /N-paa/ | ‘rice’ | (cl.9/10) | HK |
| | <i>mbwáa</i> | /N-pwaa/ | ‘dog’ | (cl.9/10) | HK |
| | <i>u-myáa</i> | | ‘termite’ | (cl.14) | AK |

⁶⁷ Not only is the vowel lengthened, but the long vowel is falling. The stem-initial H in the first word is lowered.

⁶⁸ And in some examples like *mbwáa* ‘dog’, we know that there was no consonant in PB: **bóà*.

<i>u-káa</i>		‘homeplace’	(cl.14)	HK
<i>bwíi</i>	/bu-ɪɪ/	‘earth, land’	(cl.14)	SM
<i>ubáa</i>	/u-b-aa/	‘to be’		HK
<i>abíi</i>	/a-b-ii/	‘s/he has been’		HK
<i>ma-táa</i>		‘saliva’	(cl.6)	SS
<i>ba-líi</i>	/ba-lɪ-i/	‘they have eaten’		HK

4.7 Vowel shortening

4.7.1 Word-internal

Vowels cannot be long in certain contexts. We see this with pre-NC vowels, when the syllable with the vowel is followed by two or more syllables in the word⁶⁹, as in the word for the language/ethnic group *ndengeleko*.

124.	<i>ku-líŋgaana</i>		‘to be enough’	TO
	<i>ku-yáŋgábana</i>		‘to mix’	AK
	<i>ŋkumbólɔ</i>	/mu-kumbɔlɔ/	‘baboon’	(cl.3) AK
	<i>ki-pómbógɔ</i>		‘crocodile’	(cl.7) SM
	<i>ki-ndáŋgwáála</i>		‘stool, chair’	(cl.7) AK
	<i>ku-póŋgótɪ</i>		‘in the bush’	(cl.17) AK

The same positional restriction accounts for short vowels following glide formation, a process which otherwise causes long vowels (see 4.6).

125.	<i>kwóbeela</i>	/ku-obeela/	‘to play’	AK
	<i>kwóbeka</i>	/ku-obeka/	‘to get lost’	AK
	<i>kwákala</i>	/ku-akala/	‘to be bad’	HK
	<i>kwímíya</i>	/ku-imiya/	‘to extinguish’	SM
	<i>kwikwílɪlɪ</i>	/ku-ikwɪlɪlɪ/	‘in/at Ikwiriri’	(cl.17) HK

This is also why a vowel resulting from assimilation across morpheme-boundaries, a context otherwise resulting in a long vowel (see section 4.5.3), is short in the

⁶⁹ There are several exceptions to this in the data, for example *liséenzema* /li-senzema/ ‘big mosquito’ (cl.5 aug), and the details of vowel shortening remain still to be more thoroughly analysed.

following example. The class 16 prefix *pa-* precedes the NCP of class 8 (*igóóngo* means ‘small hills, dry land’):

126. *pigóóngo* /pa-i-gongo/ ‘on the shore’ AK

We have seen in the section on lengthening (4.6) that monosyllabic stems are always long in Ndengeleko. In the case of the associative marker Cd-*a*, however, the vowel is always shortened as it can never be phrase-final.

127. *igóombo ya ulímya*
 i-gombo i- a ulímia
 8-tools 8Cd- of to.cultivate.with
 ‘cultivating tools’ (TN-E)

When a subject marker (SM) precedes the present disjoint TAM *ando-/endo-/ondo-* or *ano-*,⁷⁰ the expected pre-NC lengthening is optionally neutralised.

128. *andóandika balúa*
 a- ando- andika ø- balua
 1SM- PRES.DJ- write 9/10-letter(Sw)
 ‘S/he is writing letters.’ (AK-E)

129. *báána bendólyaa*
 ba-ana ba- endo- li -a
 2- children 2SM- PRES.DJ- eat -FV
 ‘The children are eating.’ (AK-E)

130. *nandótóola..*
 ni- ando- tool -a
 1sSM- PRES.DJ- take -FV
 ‘I am taking.’ (HK-E)

Even when there is lengthening from glide formation as well as pre-NC, the first vowel in *andó-* is not long in the following example.

⁷⁰ The underlying first vowel of this TAM is so far unclear. See for details 10.9.

131. *likólo lyandótínka*

li- kolo li- ando- tɪnk -a
5- leaf.veg 5SM- PRES.DJ - be.burnt -FV
'The vegetables are burning.' (HK-E)

There are other examples where the vowel is long, see the following example and also in section 10.6.1.

132. *aanóólyaa*

a- ano- li -a
1SM- PRES.DJ- eat -FV
'He is eating.' (AK-E)

4.7.2 *Across word boundaries*

A vowel in a noun or verb stem is shortened when the word is in a close syntactic relationship with what follows e.g. a noun followed by a modifier. The following are examples of words which have a long vowel when spoken in isolation or phrase-finally:

133. *ku-bóóka* 'to go' (AK-E)

134. *gabɔka kwáa*

ga- bɔk -a kwaa
6SM- go -FV NEG
'It (i.e. 'soot') doesn't go away.' (HK-E)

135. *máaʋ* /ø-maaʋ/ 'mother' (cl.1a) (AK-E)

136. *maʋ báángʋ*

ø- maaʋ ba- angʋ
1a-mother 2Cd- 1sPOSS
'my mother' (HK-E)

137. *amiséembe* /a-misembe/ 'boys' (cl.2) (AK-E)

138. *amisembe ába bíi*

a-misembe aba ba-ii
2-boys 2.these 2- thieves
'These boys are thieves.' (AK-E)

139. *páandu* /pa-ndu/ ‘place’ (cl.16) (AK-E)

140. *pandu péene*
pa-ndu pa- ene
16-place 16Cd- it(self)
‘the place (itself)’ (SM-E)

141. *atépóvla*
a- te- pʊʊl -a
1SM- COMPL- pound -FV
‘she pounded’ (HK-E)

142. *apóla mpóóŋga*
a- pʊʊl -a mu- punga
1SM- pound -FV 3- unhusked.rice
‘She's pounding rice.’ (HK-E)

143. *migóonda* /mi-gɔnda/ ‘fields’ (cl.4) (AK-E)

144. *migóonda yíítv*
mi-gɔnda i- itv
4- field 4Cd-1pPOSS
‘our fields’ (PK-E)

An adjective, being a nominal in Bantu languages, has a less strong relationship with the preceding noun. Vowel shortening does take place, but is not as strong. For example, the vowel /e/ in *katéela* ‘small stick’ (cl.12, dim) is shortened from 200ms to 110ms, which is longer than an ordinary short vowel. The vowels in the examples above are shortened much more, for example the verb *ku-bóóka* (134) is shortened from 190 to 80ms when followed by the negator.

145. *ka-téela* ‘small stick’ (cl.12, dim) (AK-E)

146. *katéela kaípi*
ka- teela ka- ipi
12NCP- small.stick 12NCP- short
‘short small stick’ (AK-E)

A noun followed by the associative marker (see section 6.4) is also not shortened. The length of the vowel in the noun *nsééngo* ‘building’ (cl.3) in example (119) is maintained followed by an associative construction.

147. *nsééngo wa kwákala*

mu- sengo u- a ku- akala
 3NCP- building 3Cd- of 15NCP- be.bad
 ‘bad house’ (HK-E)

This is illustrated in the following figure:

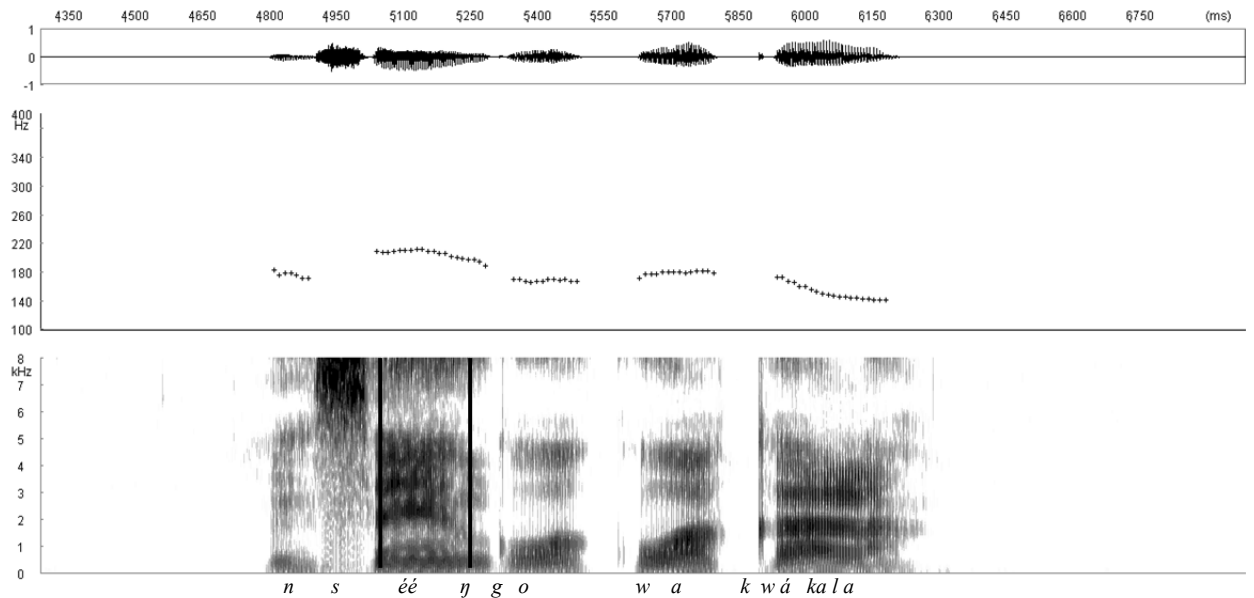


Figure 12 *nsééngo wa kwákala*: the vowel *ee* of *nsééngo* is 150ms

Compare this with the same noun followed by a demonstrative:

148. *nsengo wáa kwákala*

mu- sengo u- aa ku- akala
 3NCP-building 3Cd- that 15NCP- be.bad
 ‘that bad house’ (HK-E)

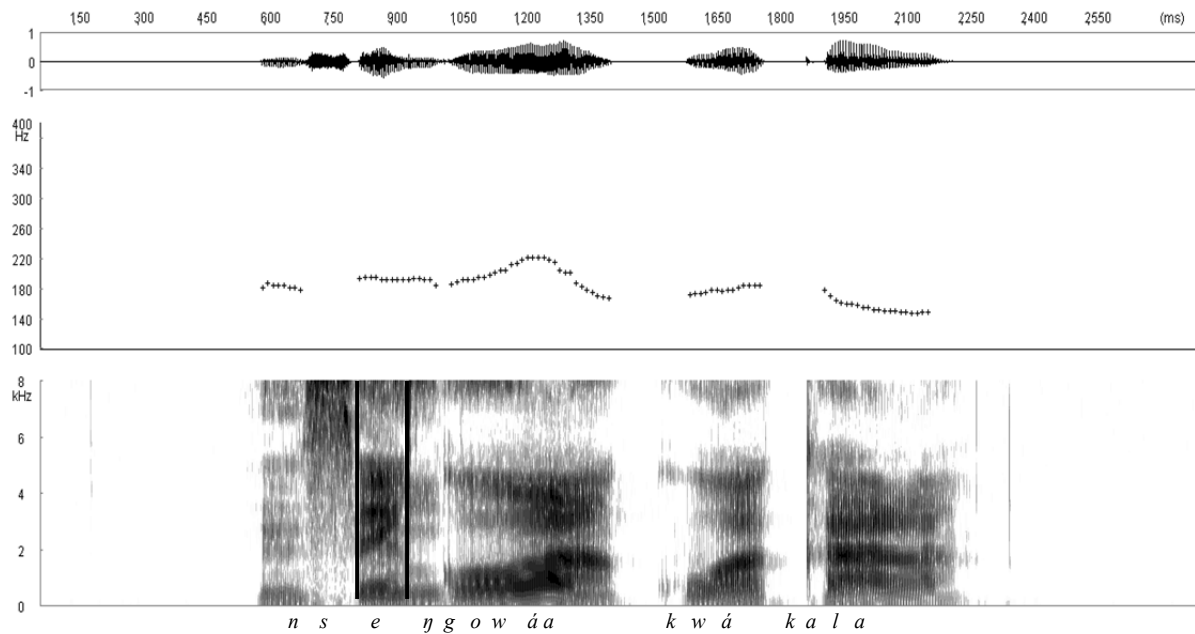


Figure 13 *nengo waa kwákala*: the vowel *e* of *nengo* is 90 ms

We also see a difference in pitch, whereby the demonstrative *wáa* is long and falling, and causes the tone of the preceding noun to be lowered. Also the negative counterpart of the associative construction does not cause shortening, see (149). With a following quantifier, however, *panáani* is shortened as in (150).

149. *panáani pangé kilibe*
 pa- ø- naani pa- a ngé ki- libe
 16- 9/10-top 16Cd- of without 7- thing
 ‘There is nothing on top/up there.’⁷¹ (AK-E)

150. *panani píitv*
 pa- ø- naani pa- itv
 16NCP- 9/10-top 16Cd- 1p.POSS
 ‘our on top’ (AK-E)

Perfective stems are shortened when followed by, for example, an adverb.

151. *tubonagine díiso*
 tu- bonagine lii- so
 1pSM- meet.PFV 5- yesterday
 ‘We met him yesterday.’ (HK-E)

⁷¹ Literally: ‘The place on top without a thing.’

152. *paa páno tubónagiine*

pa- aa pano tu- bonagine
 16Cd- that 16.here 1pSM- meet.PFV
 ‘See you again.’⁷² (HK-E)

Long vowels do not desyllabify. Therefore, the result of the vowel *oo* followed by *i* in (153) is a vowel sequence. Shortening of this long vowel across a word-boundary can in turn have the consequence that the vowel is desyllabified with glide formation and lengthening of *i* as a result (154), see section 4.6.1. This explains the different realizations of the perfective *-bóói*, from *-bóya* ‘return’.

153. *úla abóoi*

ø- ula a- búi
 9/10-rain 1SM- return.PFV
 ‘The rains have returned.’ (AK-E)

154. *Nibwii utéma ngóbo.*

ni- búi utema N- kobo
 1sSM- return.PFV to.cut 9/10-banana
 ‘I return and cut the banana.’ (HN-E)

4.8 Summary

Ndengeleko retains the seven vowel system reconstructed for Proto-Bantu, although reduction in the vowel inventory is common for Bantu languages which have undergone the historical process of spirantisation. This historical process has resulted in many vowel-initial stems in Ndengeleko. This leads to onsetless syllables, as we have seen in the overview of possible syllables. When such vowel-initial stems are combined with prefixes of different kinds, the results are long vowels, vowel sequences and gliding, as well as assimilation in some cases. Ndengeleko also retains phonological vowel length. Long vowels of different kinds can again be shortened, depending on the context. In the verbal extensions, we find vowel harmony.

⁷² Literally: ‘right here we have met’.

Part III: Morphology in the noun phrase

The following chapters deal with the noun phrase in Ndengeleko. The noun class system is introduced and analysed in Chapter 5. This is the system which governs all agreement in Ndengeleko, within the noun phrase and the verb phrase. In Chapter 6, adnominals are analysed, including their morpho-syntactic behaviour, meaning and function. As mentioned, the noun class membership of a noun determines the agreement. This is called grammatical agreement. However, there are deviations from this, where semantic considerations take over, e.g. the role played by animacy. Such specifics of agreement are the subject of Chapter 7.

Presentation of data

As the rest of the thesis concerns morphological aspects of Ndengeleko, the homorganicity of the nasal preceding a velar is not marked (i.e. [ŋg] will be written *ng*). The underlying form in the lists of nouns is only presented when (morpho-) phonological processes have applied and caused a difference between underlying and surface forms.

5. *The noun*

5.1 *Introduction*

This chapter analyses the Ndengeleko nominal. The morphological structure of the noun is presented in section 5.2. In 5.3, an overview of the 18 noun classes is given, followed by a separate presentation of each noun class in 5.4. The possible combinations of classes into singular/plural pairings is the subject of 5.5. As we shall see in that section, some speakers of Ndengeleko accept a plural in noun class 4 or 6 for virtually any singular noun. As these plurals are not accepted by all speakers, they are called ‘alternative’ in this work. Section 5.6 gives specifics of how noun stems can be used in different noun classes for secondary classification. In 5.7, the personal pronouns are presented, and in 5.8 uninflected interrogatives.

5.2 *Form of the noun*

The noun in Ndengeleko has the following morphological structure, exemplified in (155) with a noun of class 7:

Noun Class Prefix (NCP) + Noun stem

155. *ki-kiúmbi* /ki-kumbi/ ‘wall’ (cl.7) AK

The NCP can be \emptyset in class 9/10:

156. *áto* / \emptyset -ato/ ‘python’ (cl.9/10) AK

The most common shape of the NCP is CV. The exception to this is the class 9/10 NCP, which is a homorganic nasal or \emptyset . Furthermore, the NCP’s of noun class 2, 14 and 15 show an alternation between CV and V: *ba-* or *a-*, *bu-* or *u-*, and *ku-* or *u-*, respectively.

In many Bantu languages, the prefix is preceded by a so called pre-prefix. This prefix, also called an augment or initial vowel, occurs before the NCP, as for example in Kagulu (Petzell 2008:63-70). There is no such pre-prefix in Ndengeleko.

5.3 *Overview of the noun classes*

Ndengeleko nouns belong to one of 18 noun classes. In the Bantuist tradition, originating in the work of Bleek (1851) and Meinhof (1906), the numbering of the noun classes follows a system according to which, for example, noun class 14 in Ndengeleko can be traced back to Proto-Bantu noun class 14, and is referred to with this number in any other study of a Bantu language. This is useful for comparisons. See Katamba (2003) and Maho (1999:2-7) for concise overviews. No Bantu language retains the approximately 24 noun classes that have been reconstructed for Proto-Bantu (Katamba 2003:108). A system with 18 noun classes such as in Ndengeleko is somewhat reduced but is still referred to as a canonical system in Bantu comparisons (Katamba 2003:108).

In Table 31, the noun classes of Ndengeleko are presented. Uneven numbers represent singular classes, and even numbers represent plural classes. This holds true up to class 11. Because class 11 takes its plural from class 10, the number 12 is then used for the next singular class. The table presents each noun class with the prefix and a few typical examples from each class. All forms with one of the *mu*-prefixes or the *N*- prefix undergo morphophonological changes, as seen in section 3.3.2. Although the noun classes are either singular or plural, most singular noun classes may contain mass nouns, or other nouns which are not paired with a plural.

Table 31 Noun classes of Ndengeleko

Noun class	Prefix	Example	Underlying form	English
1	<i>mu-</i>	<i>nnwáawa</i> <i>muúndu</i>	/mu-lwawa/ /mu-ndu/	‘woman’ ‘person’
1a	<i>∅-</i>	<i>∅-táati</i>		‘father’
2	<i>a-</i> <i>ba-</i>	<i>a-lwáawa</i> <i>baáandu</i>	/a-lwawa/ /ba-ndu/	‘women’ ‘persons’
3	<i>mu-</i>	<i>nkóongo</i> <i>nkumbólo</i> <i>mwíjno</i>	/mu-kongo/ /mu-kumbolo/ /mu-ijno/	‘tree’ ‘baboon’ ‘salt’
4	<i>mi-</i>	<i>mi-kóongo</i> <i>mi-kumbólo</i>	/mi-kongo/	‘trees’ ‘baboons’
5	<i>li-</i>	<i>li-páamba</i> <i>lyóói</i>	/li-pamba/ /li-oi/	‘shoulder’ ‘smoke’
6	<i>ma-</i>	<i>ma-piinga</i> <i>ma-gólo</i> <i>ma-táa</i>	/ma-pinga/	‘eggs’ ‘legs’ ‘saliva’
7	<i>ki-</i>	<i>ki-bíga</i> <i>ki-imbwi</i>		‘cooking pot’ ‘hyena’
8	<i>i-</i>	<i>i-bíga</i> <i>i-imbwi</i> <i>i-kwíli</i>		‘cooking pots’ ‘hyenas’ ‘dwarf mongooses’
9	<i>N-</i> ⁷³ <i>∅-</i>	<i>ngóbo</i> <i>∅-óóbi</i>	/N-gobo/	‘banana’ ‘leopard’
10	<i>N-</i>	<i>ngóbo</i> <i>∅-óóbi</i> <i>mbáu</i>	/N-gobo/ /N-bau/	‘bananas’ ‘leopards’ ‘ribs’
11	<i>lu-</i>	<i>lu-gólo</i> <i>lu-báu</i> <i>lu-kwíli</i>		‘leg’ ‘rib’ ‘dwarf mongoose’
12	<i>ka-</i>	<i>ka-séenzema</i>	/ka-senzema/	‘small mosquito (dim)’
14	<i>(b)u-</i>	<i>u-bíja</i> <i>bwóóga</i>	/bu-oga/	‘sickness’ ‘fear’
15	<i>(k)u-</i>	<i>kutyáanga</i>	/ku-tyanga/	‘to walk’
16	<i>pa-</i>	<i>páandu</i>	/pa-ndu/	‘(on the) place’
17	<i>ku-</i>	<i>kúundu</i>	/ku-ndu/	‘(at the) place’
18	<i>mu-</i>	<i>mpóngóti</i>	/mu-pongoti/	‘in the bush’

As Corbett (1991:8) points out, all gender systems are in a sense semantic in that there is always a semantic core to the assignment system. Furthermore, the noun classes of Bantu languages are known to exhibit a certain degree of semantic

⁷³ N refers to a homorganic nasal, which causes an initial voiceless stem consonant to be voiced. See section 3.3.2.

coherence. For example, in Ndengeleko, noun class 7 contains a large number of instruments, such as *kyíimbe* ‘knife’.

It is also well-known, however, that semantic coherence is often difficult to establish when taking all lexical items of a noun class into account. Noun class 7 in Ndengeleko for example also contains *kigáanza* ‘palm of hand’, *kiláályo* ‘food’ and *kikóko* ‘rat’, to name but a few. Attempts have been made for other languages to make sense of this system in terms of schematic networks with prototypes, for example for Setswana (Selvik 2001). Another approach explains the noun class systems in terms of cultural scenarios to which nouns in a class are related by means of semantic extensions, schematisations, and metaphorical and metonymical links. This is exemplified for Shona by Palmer and Woodman (2000). Spitulnik (1989) analyses the semantic content of noun classes not in terms of the objects included in each noun class, but rather in terms of sets of properties.

Although these analyses give insightful information about the noun class systems in question, there is a lot of ‘guesswork’ involved and claims are made which are difficult to test. In line with Dingemanse (2006), I find it plausible that this difficulty stems from the gradual development of the noun class system over a long time in history. I quote: ‘The allocation of new members to the class will change the internal dynamics of the semantic network of that class, enabling new conceptual links and abstractions to be made, and old ones to be changed or weakened’ (Dingemanse 2006:18). In the present work, grammatical aspects of the noun class system are in focus and a semantic analysis will not be attempted.

5.4 *Noun classes*

In what follows, each noun class is presented separately. The form of the noun class prefix is given and exceptions are discussed. The boundary between prefix and stem is indicated with a hyphen (-) in either the underlying or (if there is no underlying form given) the surface form. The morphophonological rules are explained in section 3.3.2.

Noun class 1

This noun class consists solely of nouns referring to human beings, making it the most semantically coherent class. The class 1 prefix is *mu-*, although it is exceptional that a noun has this form of the prefix on the surface. The noun for ‘person’ is such an exception.

157. *muúndu* /mu-ndu/ ‘person’ HK

In combination with vowel-initial stems there is glide formation, as is explained in section 4.6.1. Glide formation causes predictable lengthening.

158. *mwáána* /mu-ana/ ‘child’ HK

With consonant-initial stems, a series of assimilations takes place. These result in (5a) a homorganic nasal in the case of voiceless stem-initial consonants, and (5b) a geminate nasal in the case of voiced stem-initial consonants. These morpho-phonological processes are analysed in 3.3.2. Further examples of vowel-initial stems are given in (5c).

159.	a	<i>mpííndo</i>	/mu-píndo/	‘parent’	AK
		<i>nkólóŋgwa</i>	/mu-kólŋgwa/	‘man, fellow’	AK
		<i>nkíba</i>	/mu-kíba/	‘poor person’	SM
		<i>nkóló</i>	/mu-kóló/	‘elder brother’	AK
		<i>nsímaana</i>	/mu-símaana/	‘small one’	SS
	b	<i>nnóongo</i>	/mu-longo/	‘brother, relative’	HK
		<i>nnálóome</i>	/mu-nalóome/	‘man’	HK
		<i>ŋŋóoi</i>	/mu-gooi/	‘old person’	HK
		<i>mmélei</i>	/mu-melei/	‘pregnant woman’	HK
	c	<i>mwaábi</i>	/mu-abi/	‘sorcerer, bad person’	AK
		<i>mwááli</i>	/mu-ali/	‘young woman’	AK

Noun class 1a

Nouns in this class refer to humans, mostly kinship terms. They all have a \emptyset -prefix. It is common in Bantu linguistic studies to refer to this kind of nouns as belonging to 1a (Meeussen 1967:100), as they are similar to class 1 (they denote humans and take class 1 agreement marking) but they lack a typical class 1 prefix. Often this class includes kinship terms, proper names and anthropomorphic animals, in fables (Maho 1999:74). These nouns often induce class 2 agreement for honorific reasons, see section 7.2.

160.	<i>máav</i>		‘mother’	AK
	<i>tááti</i>		‘father’	AK
	<i>jóonga</i>	/ \emptyset -jonga/	‘father’s sister’	AK

<i>kólo</i>		‘elder’	AK
<i>nkwélome</i> ⁷⁴		‘maternal uncle’	AK
<i>mbúya</i>		‘grandmother’	AK
<i>mbwíga</i>	/ø-mbwíga/	‘friend’	SM
<i>maniítu</i>		‘younger brother’	AK
<i>ókolo</i>		‘grandfather’	AK

Noun class 2

This noun class contains the plurals of noun class 1. The class 2 prefix is *ba-* for vowel-initial noun stems (a) and for the noun *baánda* /ba-ndu/, ‘persons, human beings’. In other instances, it is *a-* (b).

161.	a	<i>baánda</i>	/ba-ndu/	‘persons’	HK
		<i>bá-ána</i>		‘children’	HK
		<i>ba-ábi</i>		‘sorcerers, bad persons’	AK
		<i>bá-áli</i>		‘young women’	AK
	b	<i>akólóŋwa</i>	/a-kulŋwa/	‘fellows’	AK
		<i>a-góoi</i>		‘old persons’	HK
		<i>a-kóló</i>		‘elder brothers’	AK
		<i>a-símaana</i>		‘small ones’	SS
		<i>apíndo</i>	/a-píndo/	‘parents’	AK
		<i>alóngo</i>	/a-longo/	‘relatives’	HK
		<i>a-nálóme</i>		‘men’	HK
		<i>a-kíba</i>		‘poor persons’	SM
		<i>a-mélei</i>		‘parents’	HK

A noun derived from a verb takes *-a*, even when the stem is vowel initial. This has also been found in Matuumbi (Odden 1996).

162.	<i>aúba oómba</i>	/a-uba omba/	‘fishermen’	AK
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The noun *mwíinza* /mu-inza/ ‘girl’ can take either of the plural prefixes, although it is vowel-initial.

⁷⁴ This resembles a class 1 noun with the underlying form ?/mu-kwelome/. Based on the plural *a-ká-nkwélome*, with prefixes added to the full form *nkwélome*, this noun is analysed here as having a ø-prefix.

163.	<i>aínza</i>	/a-mza/	‘girls’	HK
	<i>baínza</i>	/ba-mza/	‘girls’	HK/TN

There is a formative *ka-* in Ndengeleko, preceded by the plural suffix *a-*. It is especially common with kinship terminology, as a plural of class 1a. The addition of the prefix *ka-* is optional in some cases. Therefore ‘grandmothers’ occurs both as *ambúya* and as *akáambuya* in the data.

164.	<i>akáambuya</i>	/a-ka-mbuya/	‘grandmothers’	AK
	<i>akáankwélome</i>	/a-ka-nkwelome/	‘maternal uncles’	AK
	<i>akámámbwiiga</i> ⁷⁵	/a-ka-ma-mbwiga/	‘friends’	AK

Several Bantu languages have (presumably) derivational prefixes of the form *ka-*, occurring in different noun classes, and especially in class 1a (Maho 1999:74). As Guthrie (1970b:245) writes, it does not seem possible to relate this element to the class 12 prefix **ka*. Their meaning is in most cases unclear.

Several kinship terms with singular reference are in class 2 and have a prefix *a-*, for honorific reasons. When there is a form in another class, this has a more general meaning: *mbúya* ‘grandmother’ (cl. 1a), *nsééngo* /mu-sengo/ (cl.3) ‘home, marriage, husband’.

165.	<i>asééngo</i>	/a-sengo/	‘husband’	HK
	<i>a-mbúya</i>		‘grandmother’	HK
	<i>a-nóme</i>		‘uncle’	HK

A noun with plural reference is formed with *ka-* in these cases, i.e. *akásééngo* ‘husbands’. Both singular and plural forms take class 2 agreement, which is the respectful form.

Noun class 3

The class 3 prefix is *mu-*. It undergoes exactly the same morphophonological processes as the noun class 1 *mu-* prefix (see also section 3.3.2). Exceptions to these morphophonological processes are also discussed there.

⁷⁵ This form includes a class 6 plural prefix *ma-*. The plural *mámbwiiga* /ma-mbwiga/ is also possible (for speaker SM).

166.	a	<i>ntéela</i>	/mu-tela/	‘tree, twig; medicine’	AK
		<i>ntóte</i>	/mu-tote/	‘hyena’	AK
		<i>nkánwa</i>	/mu-kanwa/	‘mouth’	SS
		<i>nkólo</i>	/mu-kolo/	‘hen’	AK
		<i>nkwáanda</i>	/mu-kwanda/	‘armadillo’	AK
		<i>nkóta</i>	/mu-kota/	‘sugercane’	AK
	b	<i>ɲnáángo</i>	/mu-lyango/	‘door’	AK
		<i>ɲjóongo</i>	/mu-gongo/	‘back of body’	SS
		<i>ɲjóónda</i>	/mu-gɔnda/	‘field’	AK
		<i>mméleko</i>	/mu-beleko/	‘offspring’	AK
	c	<i>mwíi</i>	/mu-ii/	‘pestle’	AK
		<i>mwáánza</i>	/mu-anza/	‘journey’	AK
		<i>mwéei</i>	/mu-ei/	‘moon’	AK
		<i>mwíító</i>	/mu-itɔ/	‘forest’	AK

There are several lexical items denoting animals in this class. For Matuumbi, Odden (1996:28) writes that there are no animals in class 3. However, he is unsure about the word for ‘hyena’, in Matuumbi *ntoté*, plural *matoté*. In Ndengeleko the equivalent *ntóte* ‘hyena’, plural *mitóte*, is in class 3, based on its phonology, agreement and singular/plural pairing. It therefore seems likely that the noun is in class 3 in Matuumbi as well. This example also shows that Matuumbi has similar flexibility to Ndengeleko in the use of noun class 6 plurals (see 5.5).

Abstract or mass nouns are not uncommon in class 3, for example the following:

167.	<i>nníma</i>	/mu-lima/	‘land, country’	SS
	<i>nnáka</i>	/mu-laka/	‘anger’	AK
	<i>mwíjɔ</i>	/mu-ijɔ/	‘salt’	AK
	<i>mwáalo</i>	/mu-alo/	‘reason’	AK
	<i>mwáangi</i>	/mu-angi/	‘sand’	SS

The nouns for ‘left’ and ‘right’ seem to belong to this class as well. Noun class membership is however difficult to establish, as no examples with agreement have been possible to elicit; there are also no examples of singular/plural pairing.

168.	<i>nkéya</i>		‘left’	AK
	<i>múlyo</i>		‘right’	AK

Noun class 4

Class 4 is regularly used to form the plurals of class 3. The noun class 4 prefix is *mi-*.

169.	<i>mi-téela</i>		‘trees, twigs’	AK
	<i>mi-tóte</i>		‘hyenas’	AK
	<i>mi-kánwa</i>		‘mouths’	SS
	<i>mi-kólo</i>		‘hens’	AK
	<i>mi-kwáanda</i>	/mi-kwanda/	‘aardvarks’	AK
	<i>mi-kóta</i>		‘sugar canes’	AK
	<i>mi-lyáango</i>	/mi-lyango/	‘doors’	AK
	<i>migóongo</i>	/mi-gongo/	‘backs of body’	SS
	<i>mi-góonda</i>	/mi-gonda/	‘fields’	AK
	<i>mi-béleko</i>		‘offsprings’	AK
	<i>míi</i>	/mi-ii/	‘pestles’	AK
	<i>myáanza</i>	/mi-anza/	‘journeys’	AK
	<i>mi-itó</i>		‘forests’	AK
	<i>mi-líma</i>	/mi-lima/	‘lands, countries’	AK
	<i>mi-láka</i>		‘angers’	AK
	<i>myáalo</i>	/mi-alo/	‘reasons’	AK

Class 4 can also be used for plurals of singular nouns from other classes (see section 5.5).

Noun class 5

The prefix of the singular class 5 is *li-*.

170.	<i>lipáamba</i>	/li-pamba/	‘shoulder’	SS
	<i>lyímbwa</i>	/li-imbwa/	‘hole’	AK
	<i>ligéembe</i>	/li-gembe/	‘hoe’	HK
	<i>ligóongo</i>	/li-gongo/	‘dry land, shore’	AK
	<i>li-béele</i>		‘breast’	TN

Some nouns are abstract or mass nouns, and do not pair with a plural:

171.	<i>libíndo</i>	/li-bíndo/	‘darkness’	AK
	<i>li-kóló</i>		‘vegetable side dish’	AK
	<i>lilángo</i>	/li-langó/	‘brain, intelligence’	SM
	<i>lyóói</i>	/li-oi/	‘smoke’	SM
	<i>liyéngo</i>	/li-yengo/	‘work’	SM

There is some interesting variation to the class 5 prefix. Certain nouns in this class have a long prefix *lii-*.

172.	<i>lii-kóló</i>		‘grass’	AK
	<i>lii-kótó</i>		‘ear’	SS
	<i>lii-yúgwá</i>		‘knee’	SS
	<i>lii-yágwá</i>		‘lung’	TN
	<i>lii-sóbá</i>		‘sun, day’	SM
	<i>lii-gómó</i>		‘cheek’	AK
	<i>lii-lálú</i>		‘crazy person’	SM
	<i>líi-so</i>		‘yesterday’	AK
	<i>lii-sána</i>		‘day before yesterday’	AK

These nouns mostly have a HH tone pattern on the stem, although there is some variation to this: AK says *lii-kótó* ‘ear’, for example.

There are also other nouns with initial long *lii*, but these are caused by a sequence of prefix and vowel-initial stem (see vowel concatenation, section 4.5.2).

173.	<i>lí-ío</i>		‘eye’	AK
	<i>lí-ína</i>		‘name’	AK
	<i>lí-íno</i>		‘tooth’	HK

Although most loans in Ndengeleko are in noun class 9/10, a few are in class 5. These are common noun classes for loans in Bantu languages (Maho 1999:87).

174.	<i>li-sufulíya</i>	<i>Sw. sufuria</i>	‘pan’	HN
	<i>li-kalatási</i>	<i>Sw. karatasi</i>	‘paper’	TO
	<i>li-gáli</i>	<i>Sw. gari</i>	‘car’	HK

An important secondary function of class 5 is the derived augmentative/derogatory meaning (see section 5.6).

Noun class 6

This class typically contains the plurals of class 5. The prefix has the form *ma-*.

175.	<i>mapáamba</i>	/ma-pamba/	‘shoulders’	TN
	<i>maimbwa</i>	/ma-imbwa/	‘holes’	AK
	<i>magéembe</i>	/ma-gembe/	‘hoes’	HK
	<i>magóongo</i> ⁷⁶	/ma-gongo/	‘dry lands, shores’	AK
	<i>ma-béele</i>		‘breasts’	TN

The nouns in class 5 with a long *lii-* prefix have the same HH tonal pattern in the corresponding class 6 plurals, but with a short prefix *ma-*, when there is such a plural.

176.	<i>ma-yúgwá</i>		‘knees’	SS
	<i>ma-sóbá</i>		‘days’	SM
	<i>ma-yágwá</i>		‘lungs’	TN
	<i>ma-gómó</i>		‘cheeks’	SS
	<i>ma-kótó</i>		‘ears’	AK

The prefix *ma-* precedes consonant- as well as vowel-initial stems without phonological changes. Exceptions to this are, for example, the nouns *míino* /ma-ino/ ‘teeth’ and *míio* /ma-io/ ‘eyes’, in which the prefix vowel is subject to assimilation (see section 4.5.3).

In the word *líibwe* /lii-bwe/ ‘stone’, the prefix *li-* is not dropped when the plural prefix *ma-* is added: *malíibwe* (AK). There are no other examples of this.

Class 6 also contains liquids and other mass nouns, which do not have a singular counterpart.

177.	<i>máá-si</i>		‘water’	AK
	<i>ma-íilo</i>		‘soot’	HK
	<i>ma-kéna</i>		‘sand fleas’	HK
	<i>má-ni</i>		‘excrement, dung’	HK
	<i>ma-kóóso</i>		‘urine’	SS
	<i>ma-úta</i>		‘oil’	HK

⁷⁶ The plural is also used as a place name, to indicate the area around Kibiti, away from the river and sea.

mayóonzu /ma-yonzu/ ‘rough, dirty hair’ AK

The label ‘6a’ has been proposed for these nouns, to show the distinction from the plural class 6 (Welmers 1973). I agree with Maho (1999:78) that this is not necessary as they are phonologically, morphologically and syntactically indistinguishable from class 6. Moreover, in Ndengeleko, these nouns have a connection with class 5 just as most ‘ordinary’ class 6 plurals do. Speakers can sometimes produce a singular item in class 5 when needed: *makáando* /ma-kando/ ‘soil’, *likáando* /li-kando/ ‘particle of soil’; *ma-kóoso* ‘urine’, *li-kóoso* ‘drop of urine’.

Noun class 7

The prefix of noun class 7 is *ki-*. The vowel of the prefix desyllabifies and causes glide formation before a noun stem initial vowel (see section 4.6.1).

178.	<i>ki-líbe</i>		‘thing’	AK
	<i>kigóombo</i>	/ki-gombo/	‘pot, tool’	HK
	<i>kigáanza</i>	/ki-ganza/	‘palm of hand’	TN
	<i>ki-kóko</i>		‘rat, sp’	AK
	<i>ki-yóni</i>		‘bird’	AK
	<i>kyúundo</i>	/ki-undo/	‘joint’	AK

Nouns denoting humans in class 7 mostly refer to people with certain (unfavourable) characteristics.

179.	<i>ki-tóló</i>		‘blind person’	AK
	<i>kilóombu</i>	/ki-lombu/	‘lover’	AK
	<i>ki-búbu</i>		‘mute person’	AK

Noun class 8

Class 8 is regularly the plural of class 7, but can also be the plural of classes 11 and 12. The prefix for this class is *i-*. The prefix vowel undergoes glide formation when followed by a stem-initial vowel.

180.	<i>i-líbe</i>		‘things’	AK
	<i>igóombo</i>	/i-gombo/	‘pots, tools’	HK
	<i>igáanza</i>	/i-ganza/	‘palm of hand’	TN
	<i>i-kóko</i>		‘rats, sp’	AK
	<i>i-yóni</i>		‘birds’	AK
	<i>yúundo</i>	/i-undo/	‘joints’	AK
	<i>i-tóló</i>		‘blind persons’	AK
	<i>ilóombo</i>	/i-lombo/	‘lovers’	AK
	<i>i-búbu</i>		‘mute persons’	AK
	<i>i-kwíli</i>		‘dwarf mongooses’	AK
	<i>i-bólibóli</i>		‘small spiders’	AK

Noun class 9/10

The class 9/10 prefix is a homorganic nasal represented as *N-*. A zero prefix is also possible. The class 9/10 nouns are mostly not distinguished as having singular or plural reference – they are both.

181.	<i>mbítu</i>	/N-pítu/	‘snake, sp’	AK
	<i>ngopékope</i>	/N-kopekope/	‘fish, sp’	HK
	<i>mbutipóti</i>	/N-potipoti/	‘bat’	AK
	<i>ngálába</i>	/N-kalaba/	‘canoe’	AK
	<i>ndáka</i>	/N-taka/	‘filth’	HK
	<i>ndóbe</i>	/N-tobe/	‘fish, sp’	HK
	<i>eémbe</i>	/ø-embe/	‘mango (tree)’	HK
	<i>aláu</i>		‘ant’	AK
	<i>bókobóko</i>		‘banana stew’	HN
	<i>ngóko</i>	/N-koko/	‘hen’	AK
	<i>ndóngóló</i>	/N-tungolo/	‘snake, sp’	AK
	<i>ndombíli</i>	/N-tombili/	‘vervet monkey’	AK
	<i>ngóbo</i>	/N-kobo/	‘clothes’	HK
	<i>ngáambu</i>	/ø-ŋambu/	‘other side’	AK

Nouns with human referents in this class often refer to people with disabilities, although not always.

182.	<i>ngímíkími</i>	/N-kimikimi/	‘deaf person’	AK
	<i>ngángali</i>	/N-gangali/	‘stubborn person’	SM

<i>mbógósv</i>	/N-pugósv/	‘deaf person’	SM
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This is the class where most borrowings enter the language. These do not have a prefix.

183.	<i>ø-polísi</i>	‘police’	TO
	<i>ø-sawádi</i>	‘gift’	AK
	<i>ø-kanísa</i>	‘church’	SS

Noun class 10

Noun class 9 is formally identical to noun class 10. The two classes also have identical concord prefixes (see Table 35). Class 10 nouns are always plural in reference, however. In many other Bantu languages, the singular in class 9 takes a plural in class 10 which is often identical in form but governs noun class 10 agreement. Because there is no difference in agreement, one might argue that classes 9 and 10 have merged in Ndengeleko. This is the analysis chosen for Matuumbi (Odden 1996:21), where the situation is similar. However, in Ndengeleko, many noun class 11⁷⁷ nouns take a plural with the same prefix *N-* (as is also the case in Matuumbi). Because these forms are always plural in meaning, they are clearly distinguished as noun class 10. The nouns in class 9 which have the same form in the singular and the plural, are taken as belonging to class 10 when plural in reference. When number is ambiguous, they are labelled as 9/10.

184.	<i>ngói</i>	/N-goi/	‘strings’	AK
	<i>mbáu</i>	/N-bau/	‘ribs’	SS
	<i>ngóonji</i>	/N-konzi/	‘fingers’	HK
	<i>mbába</i>	/N-paba/	‘spoons’	AK
	<i>ngóko</i>	/N-koko/	‘coughs’	AK
	<i>ndáambi</i>	/N-tambi/	‘twigs’	AK
	<i>mbágálv</i>	/N-pagalv/	‘thin poles’	HK
	<i>ndóoto</i>	/N-looto/	‘dreams’	AK

⁷⁷ The last noun in the table, *ndóoto* ‘dreams’ is the plural of a class 14 noun *u-lóoto* ‘dream’.

Noun class 11

The prefix is *lu-*.

185.	<i>lu-gói</i>		‘string’	AK
	<i>lu-báu</i>		‘rib’	SS
	<i>lukóonji</i>	/lu-konzi/	‘finger’	HK
	<i>lu-pába</i>		‘spoon’	AK
	<i>lu-kóko</i>		‘cough’	AK
	<i>lutáambi</i>	/lu-tambi/	‘twig’	AK
	<i>lu-kwíli</i>		‘dwarf mongoose’	AK
	<i>lu-págálo</i>		‘thin pole’	HK
	<i>lwíi</i>	/lu-ii/	‘river’	AK
	<i>lungóungu</i>	/lu-ngungu/	‘early morning’	AK
	<i>lu-kólo</i>		‘clan’	SM

In a few examples, *lu-* has apparently become part of the stem, as the plural prefix is added to the singular form including *lu-*:

186.	<i>lwáala</i>	/lu-ala/	‘laugh’	AK
	<i>ndwáala</i>	/N-lwaala/	‘laughs’ (cl.10)	AK
	<i>lu-kíu</i>		‘navel’	SS
	<i>ma-lukíu</i>		‘navels’ (cl.6)	SS
	<i>lú-úwa</i>		‘open space’	AK
	<i>ka-lúúwa</i>		‘small open space’ (cl.12, dim)	AK

Noun class 12

Noun class 12 is the regular class for diminutives in Ndengeleko. It is productive; in principle any noun can take the *ka-* prefix of class 12 for a diminutive meaning. No nouns belong to this class inherently. It is always used to derive the meaning of smallness from nouns also assigned to other classes. The prefix *ka-* is added to the noun stem, although certain speakers retain the prefix of the original noun class; in the case of class 9:

187.	<i>ka-ana</i>		‘small child’	PK
	<i>kanséembe</i>	/ka-nsembe/	‘small boy’	AK
	<i>ka-bólibóli</i>		‘small spider’	AK

<i>ka-yóobo</i>		‘small nail’	AK
<i>ka-téela</i>		‘small tree’	AK
<i>ka-kákaasi</i>		‘small container’	AK

Noun class 14

Noun class 14 contains abstract and mass nouns rather than singulars, although some of these mass nouns can be pluralised. There is phonologically determined allomorphy, not unlike that which occurs in class 2. The prefix is *u-* before consonant-initial stems, and *bu-*, which glides to *bw-*, before vowel-initial stems.

188.	<i>bwáápu</i>	/bu-apu/	‘teasing, dirty things’	HK
	<i>bwaábi</i>	/bu-abɪ/	‘witchcraft’	AK
	<i>bwóóga</i>	/bu-oga/	‘fear’	AK
	<i>u-kɪba</i>		‘poverty’	AK
	<i>u-yómɔ</i>		‘drought’	AK
	<i>ugímbɪ</i>	/u-gɪmbɪ/	‘beer’	AK
	<i>bwípi</i>	/bu-ɪpi/	‘shortness’	AK
	<i>u-lóoto</i>		‘dream’	AK

A few nouns in the data occur with the noun class 14 prefix *u-* for some speakers, and with the noun class 11 prefix *lu-* for other speakers. Mergers and near-mergers of classes 11 and 14 occur in the northern parts of the eastern Bantu area and also in Swahili (Maho 1999:184).

189.	<i>ukáando</i>	/u-kando/	‘soil’	SS/SM
	<i>lukáando</i>	/lu-kando/	‘soil’	HK
	<i>u-lóoi</i>		‘brain’	HK/SS
	<i>lu-lóoi</i>		‘brain’	HK

Noun class 15

This class consists solely of infinitive forms of verbs. The prefix is either *u-* or *ku-*; this variation is discussed in section 10.3. In citation form, the prefix *ku-* is generally used.

190.	<i>kulínda</i>	/ku-linda/	‘to wait’	AK
	<i>ku-nwáa</i>		‘to drink’	AK

ku-pómwonda /kupomonda/ ‘to hit’

AK

The infinitives are verbal nouns and make use of the nominal morphology of class 15, as nouns do in any other noun class. However, they also have verbal characteristics such as the possibility of including an object marker (Schadeberg 2003a:80).

In neighbouring Matuumbi, the infinitive prefix is only used when there is also an object prefix present (Odden 1996:55). Otherwise, the bare stem is used as infinitive. This is not the case in Ndengeleko, where the infinitive prefix is always present.

Ndengeleko has no nouns other than infinitives assigned to noun class 15. Nouns that are commonly in this class in many Bantu languages (Maho 1999:82) are found in other classes in Ndengeleko, for example *lu-bóko* ‘arm’ (cl.11), *lu-góló* ‘leg’ (cl.11) and *lipáamba* /li-pamba/ ‘shoulder’ (cl.5). Certain nouns do show traces of the PB **ku-* prefix, but they have been reassigned to other classes and the former prefix has been reanalysed as part of the noun stem, a process quite common in Bantu languages (Maho 1999:82-83): one example is *lii-kótó* ‘ear’ (cl.5). In *ngwáapa* /N-kwapa/ ‘armpit’ (cl.9/10), the proto-Bantu form **jápa* has lost the consonant *j*, due to the consonant loss described in section 3.4. The prefix *ku-*, of class 15, has undergone glide formation preceding this vowel-initial stem, and the prefix of class 9/10 has been added. This means that the underlying form of this noun is *N-ku-apa*. An alternative plural can be formed in class 6: *makwáapa* /ma-ku-apa/. None of these nouns or any other non-infinitives show agreement with noun class 15.

The locative noun classes 16, 17 and 18

A noun can be preceded by any of the locative prefixes *pa-*, *ku-* and *mu-*, to derive a place or time meaning. The added meaning of these prefixes resembles their usage in other Bantu languages: *pa-* indicates specific location, *ku-* a more remote or general location and *mu-* indicates location inside (Welmers 1973:167). The prefixes are added to the noun, including the inherent noun class prefix of that noun. For example, *móoto* ‘fire’ /mu-oto/ (cl.3) and *ki-inza* ‘stove’ (cl.7):

191.	<i>pakiinza</i>	/pa-ki-inza/	‘in the kitchen’	HN
	<i>pamóoto</i>	/pa-mu-oto/	‘on the fire’	HN

<i>kulwii</i>	/ku-lu-ii/	‘in the Rufiji region’	AK
<i>mpóngóti</i>	/mu-ø-pongoti/ ⁷⁸	‘in the bush’	AK
<i>mulitáanda</i>	/mu-li-tanda/	‘in the lake’	SM

The nouns *páandu* /pa-ndu/ and *kíu-ndu* /ku-ndu/, both meaning ‘place’, with the former indicating more specific place than the latter, belong to classes 16 and 17, respectively. For a discussion on derived locative nouns, see section 5.6.2.

5.5 *Singular/plural pairings*

In Bantu studies, singular and plural classes are considered together and referred to as a gender by some scholars. Corbett (1991), for example, argues that the traditional numbering of noun classes in Bantu studies gives insufficient weight to the link between singular and plural classes: ‘In fact, the majority of nouns take agreement of one singular class and one plural class and the number of such combinations is limited in a given language’ (Corbett 1991:45). Although this statement might have held also for Ndengeleko in the past, in the present-day language there are several good reasons for considering the noun classes separately.

First, the fieldwork carried out for this thesis shows a striking flexibility in pairings of singular and plural classes, as will be shown in this section. The more traditional pairing of classes in Bantu, e.g. class 3 singular with class 4 plural, still forms the basis of the system. On top of this, however, comes the use of classes 4 and 6 as the plurals of virtually any singular noun, at least for some speakers. This would make it necessary to establish a great number of genders, if one took the more traditional view of singular/plural pairs as genders. Moreover, many noun classes contain nouns which, because of their meanings, are not paired and only occur in one noun class. Therefore, I propose that the noun classes have primary status and that the singular/plural pairings are secondary, following Schadeberg (2001).

The term ‘noun class pairing’ is used in this work when referring to a singular and plural class together. The following figure illustrates the possible pairings and will be further explained below.

⁷⁸ The noun *póngóti* does not occur without a locative prefix in the data, but is analysed as a class 9/10 noun with a zero prefix. The prefix *mu-* is optionally reduced to *m-*, see section 3.3.2.

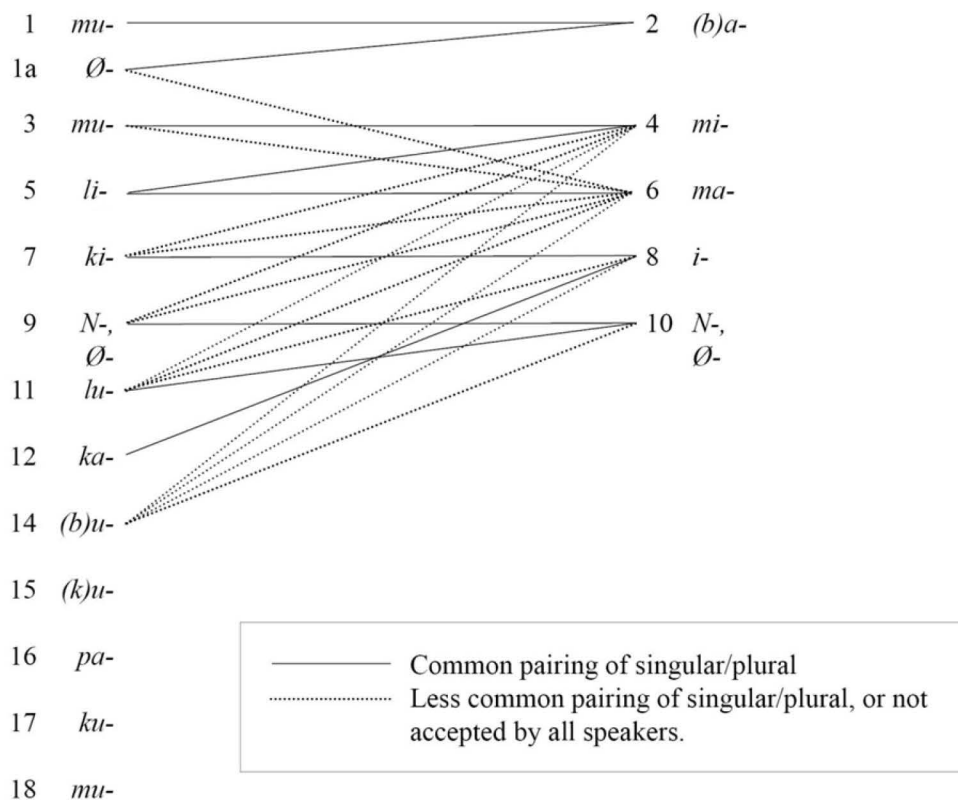


Figure 14 Possible combinations of singular and plural in the noun class system

The regular pairings in Ndengeleko correspond to a great extent to how these noun classes were supposedly combined in Proto-Bantu (Meeussen 1967:100), and are also frequently occurring in many other Bantu languages (Maho 1999:54). In Figure 14, these common pairings are indicated with a straight line:

(1/2) (1a/2) (3/4) (5/6) (5/4) (7/8) (9/10) (11/10) (12/8)

Pairing (5,4) are the augmentatives in class 5, which often also have a derogatory implication. They regularly take their plural in class 4. This is not an alternative form. Examples are *lyáána* /li-ana/ ‘big child’, plural *myáána* /mi-ana/; *linséembe* /li-nsembe/ ‘big boy’, with the plural *minséembe* /mi-nsembe/; *lyóomba* /li-omba/ ‘big fish’, plural *myóomba* /mi-omba/. This is interesting as class 4 is otherwise never a plural of class 5 in Ndengeleko, and this is also rare in a Bantu comparative perspective (Maho 1999). It does occur in Vidunda G38 for plant names (Legère 2009:220). Moreover, when nouns denoting fruits and seeds take a

plural in class 4 in Vidunda, class 4 has ‘a negative connotation, implying that the fruits or seeds are not valuable, held in low esteem or likewise’ (Legère 2009). Class 4 is also reported to be the plural of the augmentative 5a in Giryama E72a (Guthrie 1970a:47). The augmentatives in Ndengeleko are often also derogatory. This means a combination of class 5 with a plural in 4 has a specific semantic function in these three languages of different language groups, namely an augmentative and derogative one. To find out whether this phenomenon is more widespread in Bantu languages, and happens to be lacking from grammatical descriptions, would be an interesting topic for further research.

On the diminutive side, pairing (12,8) is the regular pairing for class 12. A plural is not always possible for class 12, but when it is, it is always in class 8. There are no traces of noun class 13, which is the plural of noun class 12 in other Bantu languages and also in Matuumbi (Odden 1996:22).

192.	<i>kaséenzema</i> /ka-senzema/	<i>i-séenzema</i>	‘small mosquito’	AK
	<i>ka-ηόηότwa</i>	<i>i-ηόηότwa</i>	‘small bee’	AK
	<i>ka-úpa</i>	<i>yúúpa</i> /i-upa/	‘small bone’	AK

The less common pairings, indicated with a dotted line in Figure 14 and presented further below, show a (presumably) more recent development in the language. Ndengeleko has a relatively high number of such alternative pairings, when compared to the noun class systems of six other Bantu languages as presented in Maho (1999:53). This flexibility in Ndengeleko is to a great extent a sign of individual variation. It is however not the case that young people are more flexible than older ones in combining singulars and plurals. Certain younger speakers are very ‘strict’, while some from the older generation are more liberal in their combinations of singulars and plurals. It is possible that the individual variation combines with a regional variation, but with the high mobility of speakers in the region, this is difficult to attest. This variation is not found in the work on Matuumbi by Odden (1996:23), who writes that the singular/plural pairing is a more reliable indicator of class membership than prefix and agreement patterns.

The complexity in the singular-plural pairing system is mainly caused by the acceptance of noun classes 4 and 6 as alternative plurals to virtually any singular noun except the human nouns of noun class 1. As already mentioned, this acceptance is high with certain speakers. These ‘liberal’ speakers also accept the more typical or regular plural. Some speakers, however, consistently reject the alternative plurals.

The (partial) loss of noun class 10 might be one reason for the flexibility in the system. Nouns in 9/10 have singular or plural reference without a difference in form. Moreover, they are not distinguished in the agreement system. This is often not a problem, as many nouns in class 9/10 are mass nouns and not normally spoken of in the singular, such as *koloóso* ‘cashew’ or *mbéyo* ‘seed’. Moreover, many other nouns in class 9/10 refer to animals and they take the agreement of noun class 1 when singular and noun class 2 when plural, so no ambiguity arises. But in some cases, as in the following example, there is no way to know if the speaker means one or more houses:

193. *ɲómba itíniike*⁷⁹

ɲumba i- tniike
 9/10.house 9/10SM- be.burnt.PFV
 ‘The house has burnt.’ (HK-E)

Presumably to solve this ambiguity, another plural class may be turned to, in this case 6, and one gets *mayómba* /ma-yumba/. Another case is with noun class 11. This noun class typically takes its plural in noun class 10, which is identical in form to class 9. Probably as a consequence of this, noun classes which are more clearly plural than 10 are increasingly chosen as plurals of class 11. For example, the plural of *lukóonzi* /lu-konzi/ ‘finger’ is *ngóonzi* /N-konzi/, which is the more typical form, but *makóonzi* /ma-konzi/ is also heard.

Noun classes 4 and 6 are also used when one wants to express a plural of what is normally a mass noun in 14, so *ma-bíɲa* can be used as a plural of *u-bíɲa*, ‘sickness’. The use of class 6 as a plural of class 14 is not exceptional but is rather common in Bantu languages (Maho 1999:190).

The following are the less common pairings found in the data.

(1a/6)

For noun class 1a, there is often no plural, or there is a plural in class 2, mostly involving the formative *ka-*. This has been discussed in the section on class 2. A plural in class 6 is accepted by some speakers, as in *kólo* ‘elder’, plural *ma-kólo*.

⁷⁹ In glossed phrases, nouns are represented without separating prefix and noun stem in the chapters concerning morphology in this thesis, as the morpheme boundary is often blurred by morphophonological processes, see 3.3.2. For instance, *ɲómba* is underlyingly /N-yumba/. The noun *nséengo* ‘building’ (cl.3) in (220) is given as *nsengo*, abstracting from the predictable vowel length, but without the underlying form /mu-sengo/.

There are three such examples. In fact, in one example, *a-ka-ma-ókoló* ‘grandfathers’, the plural is formed with the noun class 6 prefix *ma-*, preceded by the class 2 prefix *a-* and the formative *ka-*.

(3/6)

Exceptions to the pairing (3/4) are few, about four in the database, and only in class 6. One example is *nkála* /mu-kala/ ‘charcoal’, plural *ma-kála* (cl.6).

(5/4)

In a few examples, class 5 takes a plural in class 4, without any augmentative or derogatory semantics involved. This is rare, and is an alternative plural that occurs in addition to another, more regular one. Examples are *li-kólómélo* ‘throat’ (cl.5), plural *ma-kólómélo* (cl.6) alt. *mi-kólómélo* (cl.4), and *lipáamba* /li-pamba/ ‘shoulder’ (cl.5), plural *ma-páamba* alt. *mi-páamba*.

(7/4)

Class 4 can be an alternative plural of noun class 7 in a few cases, as for example *ki-bóŋgi* /ki-bŋgi/ ‘forehead’, plural *i-bóŋgi* (cl.8), alt. *mi-bóŋgi* (cl.4), and *ki-léu* ‘beard’, plural *i-léu*, alt. *mi-léu*.

(7/6)

A plural in class 6 is also possible for class 7 nouns, mostly next to other plurals: *ki-wéte* ‘lame person’, plural *i-wéte* (cl.8) or *ma-wéte* (cl.6), *ki-lóonda* /ki-londa/ ‘small wound’, plural *i-lóonda* (cl.8) or *ma-lóonda* (cl.6). It is interesting to note that this is a semantically coherent group.

194.	<i>ki-gúgu</i>		<i>ma-gúgu</i>	‘elbow’	TN
	<i>kyúúpa</i>	/ki-upa/	<i>myúúpa, ma-úpa</i>	‘bone’	AK~ SS
	<i>kyúundo</i>	/ki-undo/	<i>yúundo, ma-úundo</i>	‘joint’	AK~ SS
	<i>ki-íngano</i>		<i>íngano, ma-íngano</i>	‘heel’	SM~ SS

Several of these nouns can take class 4 as well as class 6 plurals, as well as the regular plural in class 8: *ki-yóobo* /ki-yobo/ ‘fingernail’, plural *yóobo* /i-yobo/ (cl.8), alternatively *ma-yóobo* (cl.6), *mi-yóobo* (cl.4). As far as is known, there is no difference in meaning between these different plurals.

In the noun *ki-tóombi* ‘hill’, the plural *ma-tóombi* (cl.6), which is the only possible plural for this noun, does not only refer to ‘hills’, but also to the ethnic group living in the hills to the south of the Ndengeleko people, namely the Matuumbi.

(9/4)

195.	<i>mbólo</i>	/N-polo/	<i>mi-pólo</i>	‘nose’	TN
	<i>mbéyɔ</i>	/N-peyɔ/	<i>mi-péyɔ</i>	‘seed’	SS
	<i>mbúbu</i>	/N-bubu/	<i>mi-búbu</i>	‘mute person’	SS
	<i>ndéu</i>	/N-leu/	<i>mi-léu</i>	‘beard’	TN

(9/6)

Nouns from class 9/10 quite frequently take a class 6 plural. These plurals are alternatives and are not accepted by all speakers (who only accept the same noun as singular as well as plural). One speaker (AK) did not reject the plural in the following example, but said ‘it’s like expressing plural twice’.

196.	<i>ngóle</i>	/N-kule/	<i>ma-kóle</i>	‘rat’	AK
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As we can see, almost all examples are animate or body-parts.

197.	<i>nzéénzéma</i>	/N-senzema/	<i>ma-séenzema</i>	‘mosquito’	HK/SS
	<i>ígo</i>		<i>ma-ígo</i>	‘kidney’	AK/SS
	<i>láámu</i>		<i>ma-láámu</i>	‘blood’	AK/SS
	<i>láwa</i>		<i>ma-láwa</i>	‘medicine’	AK
	<i>ndéembo</i>	/N-tembo/	<i>ma-téembo</i>	‘elephant’	SM/SS
	<i>ngóbo</i>	/N-gúbo/	<i>ma-góbo</i>	‘clothes’	HK
	<i>náma</i>		<i>ma-náma</i>	‘meat’	TN
	<i>nóka</i>	/N-yoka/	<i>ma-yóka</i>	‘snake’	AK
	<i>nómba</i>	/N-yumba/	<i>ma-yómba</i>	‘house’	HK/PK
	<i>táya</i>		<i>ma-táya</i>	‘jaw’	TN
	<i>yíga</i>	/ø-yiga/	<i>ma-yíga</i>	‘body’	AK/HK

(9/4, 9/6)

The following nouns have been recorded with alternative plurals in class 4 as well as class 6.

198.	<i>ndóombo</i>	/N-tumbo/	<i>ma-tóombo, mi-tóombo</i>	‘abdomen’	TN
	<i>íingo</i>	/ø-ingo/	<i>ma-íingo, mi-íingo</i>	‘neck’	SS
	<i>ngwáápa</i>	/N-kwapa/	<i>ma-kwáápa, mi-kwáápa</i>	‘shoulder’	SS

(11/9/10)

A noun which is singular and plural in reference, such as *áánzu* /ø-anzu/ ‘firewood’ (cl.9/10), can take a singular form in class 11, *lwáánzu* /lu-anzu/. Here, *áánzu* is not a plural form of *lwáánzu*, as with pairing (11/10) below. The same appears to be the case with *ága* ‘headboard’, *lwáaga* /lu-aga/.

(11/4)

A class 4 plural occurs for a class 11 noun in one case in the data.

199.	<i>lu-fyágiilo</i>	<i>mi-fyágiilo</i>	‘broom’	SS
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(11/6)

The body parts in class 11, in particular, take a plural in noun class 6. The following nouns take this as their regular plural, and do not have a plural in class 10. ‘Legs’ is expressed by a plural in class 6, although several speakers accept a plural in class 4 as well. This could be the plural of *li-góló*, and therefore be an augmentative, although this was not indicated in the translation.

200.	<i>lu-bóko</i>	<i>ma-bóko</i>	‘arm’	HK
	<i>lu-góló</i>	<i>ma-góló, mi-góló</i>	‘leg’	HK
	<i>lu-kólo</i>	<i>ma-kólo, mi-kólo</i>	‘clan’	SM
	<i>lu-kúta</i>	<i>ma-kúta</i>	‘wall’	SS

(11/8)

Certain class 11 nouns take a plural in class 8, as their only plural.

201.	<i>lukwíli</i>	/lu-kwíli/	<i>i-kwíli</i>	‘dwarf mongoose’	AK
	<i>lusóonga</i>	/lu-songa/	<i>i-sóonga</i>	‘stick’	HK
	<i>lubáanja</i>	/lu-banza/	<i>i-báanja</i>	‘plot’	HK

One class 11 noun takes a plural in class 8, as well as alternative plurals in 6 and 4.

202.	<i>lu-lími</i>	<i>i-lími, ma-lími,</i> <i>mi-lími</i>	‘tongue’	AK~SS
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The following noun has a regular plural in 10, as well as alternative plurals in 8 and 6.

203.	<i>lu-kóonzi</i>	/lu-konzi/	<i>ngóonzi, i-kóonzi,</i> <i>ma-kóonzi</i>	‘finger’	HK~PK ~TN
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(14/6)

Because of the semantics of class 14, plurals cannot always be formed. If there is a plural, then it is likely to be of noun class 6.

204.	<i>u-bíja</i>		<i>ma-bíja</i>	‘sickness’	AK
	<i>u-língo</i>	/u-lingo/	<i>ma-língo</i>	‘farmhouse’	AK

There are some patterns revealed in the less common pairings. Nouns from the different singular classes which refer to animates or body parts, in particular, take these additional plurals in noun class 4 and 6. This is a very strong tendency indeed, and might be explained by the need to pluralify these nouns, more so than with other kinds of nouns.

Another observation is that plural marking is a substitutive process, whereby the plural prefix replaces the singular one. There are very few exceptions to this in the data, see the section on class 11. In Bantu languages, the use of class 6 as a plural of other nouns than class 5 nouns, is more often than not an additive process (Maho 1999:58). For Ndengeleko, this is not the case, not even for noun class 9/10

which very often keeps its NCP when a plural is added in other Bantu languages (Maho 1999:59).

5.6 *Nominal derivation*

This section gives an overview of derivation types found in the data.

5.6.1 *Noun-to-noun*

As in other Bantu languages (Schadeberg 2003a:82), nouns can be derived from nouns by shifting them from one class to another.

Productive derivations include augmentatives, diminutives and locatives. Here we can speak of secondary classification. In other cases, no direction of derivation can be established:

205.	<i>ntéela</i>	/mu-teela/	‘tree’	(cl.3)	AK
	<i>mi-téela</i>		‘trees’	(cl.4)	AK
	<i>lu-téela</i>		‘stick’	(cl.11)	HK
	<i>ndéela</i>	/N-teela/	‘sticks’	(cl.10)	AK

These are separate nouns which share the same stem, but the prefix is required to establish the meaning of the particular lexical item as well as its number (Corbett 1991:44). The same stem can be used in one of the following derived senses:

206.	<i>li-téela</i>	‘big tree’	(cl.5, aug)	AK
	<i>mi-téela</i>	‘big trees’	(cl.4, aug)	AK
	<i>ka-téela</i>	‘small stick, tree’	(cl.12, dim)	AK
	<i>i-téela</i>	‘small sticks, trees’	(cl.8, dim)	AK

Nouns can be derived from adjectives by assigning them to a specific class, a very productive form of derivation.

207.	<i>-kóto</i>	‘fine’	<i>li-kóto</i>	‘the fine one’ (of cl.5)	(AK)
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A stem can be used in class 1 to refer to people from a certain area. The plural noun *matóombi* /ma-tombi/ (cl.6) ‘hills’ (singular *kitóombi* in class 7), including prefix, is used to form nouns denoting the Matuumbi people, ‘people of the hills’:

208. *mmatóombi* /mu-matombi/ ‘Matuumbi person’ (cl.1) SM
wamatóombi /wa-matombi/ ‘Matuumbi people’ (cl.2) SM

Class 7 can derive manner, including manner of speech. Thus, the noun *lwii* /lu-ii/ ‘river’ (cl.11), which is also used to denote the Rufiji river, can be used in class 7 (in this case, the NCP of class 7 is added to the noun including NCP of class 11): *ki-lwii*. This noun means ‘the manner of speech along the Rufiji, i.e. the Ndengeleko language’, and, more generally ‘vernacular’. For the Matuumbi language, the class 7 prefix is added to the plural *matóombi* ‘hills’ (cl.6)

209. *ki-matóombi* ‘Matuumbi language’ (cl.7) (SM)

Class 11 can in some cases be used to derive singularity, ‘one’ of a certain object:

210. *lu-léu* ‘one hair of beard, goatee’ (cl.11) cf. *ndéu* ‘beard’ AK
 /N-leu/ (cl.9/10)
lujwíili /lu-ɲwíili/ ‘one hair’ cf. *ɲjwíili* AK
 /mu-ɲwíili/ ‘hair’ (cl.3)

Nouns of quality are derived by the addition of the prefix *u-* of class 14.

211. *u-kíba* ‘poverty’ cf. *nkíba* /mu-kíba/ AK
 ‘poor person’ (cl.1)
u-yómɔ ‘drought’ cf. *-yómɔ* ‘dry’ AK

A less productive process of nominal derivation is compounding. For example, the noun *nsímaana* /mu-símaana/ means ‘one whose being is small’. If referring to a specific infant, one adds *mwana* ‘child’ to form *mwanansímaana*, with plural *banasímaana* in class 2. Here, the plural is formed by combining *báana* with the plural of *nsímaana*, which is *asímaana*. There are very few examples of this in the data, but another one is *mwanannééle* /mu-ana mu-leele/, plural *banalééle* /ba-ana a-leele/ ‘infant’ from *nnééle*, plural *alééle* ‘infant one’. The semantic aspect of this derivational process is an interesting point for further research. Language consultant AK says that *nnééle* refers to ‘the state (of being infant)’, and that *mwanannééle* is ‘the child him/herself’. As *nnééle/alééle* are clearly in classes 1/2, they are expected to refer to a human, and not to a state.

There are also some examples of compounding in class 7.

212.	<i>kilibwajéenje</i>	/ki-libwajenje/	‘coccyx’	(cl.7)	SM
	<i>líi-bwe</i>		‘stone’	(cl.5)	AK
	<i>jéenje</i>	/ø-jenje/	‘particle, splinter’	(cl.9/10)	SM

Augmentatives

Nouns in class 5 can be non-derived, like *li-lóba* ‘flower’. They can also be derived, like *lyíimbe* /li-imbe/ ‘big knife’ from *kyíimbe* /ki-imbe/ ‘knife’ in class 7. In the latter case, the meaning is augmentative and/or derogatory.

In case of humans, the meaning is always derogatory.

213.	<i>líi-lálú</i>		‘crazy person’(der)		SM
	<i>lyáána</i>	/li-ana/	‘big child’ (der)		AK

The noun *líi-lálú* ‘crazy person’ is always in class 5; this noun stem does not occur with another prefix in the data. A noun stem like *-ana*, however, occurs in class 1 *mwáána* /mu-ana/ ‘child’ and class 12 *ká-ána* ‘small child’.

In class 5, some kind of ‘uselessness’ is implied, next to the ‘largeness’. Language consultant AK explains that, for example, *lyínza* /li-inza/ ‘big girl’ (cf. *mwínza* /mu-inza/ ‘girl’) implies that this girl ‘doesn’t even know how to cook!’ An animal or thing, however, is just big, out of the ordinary.

214.	<i>li-yéelo</i>		‘big winnowing basket’		AK
	<i>li-góló</i>		‘fat/big leg’		AK
	<i>li-séenzema</i>	/li-senzema/	‘big mosquito’		AK

The augmentative/derogatory meaning is expressed through the use of class 5 in combination with a plural in class 4 (see section 5.5).

Diminutives

In Bantu languages, diminutives are widely formed by assigning nouns to class 12 (Schadeberg 2003a:83). This is also a very productive way of expressing ‘smallness’ in Ndengeleko.

215.	<i>kaíimbwi</i>	/ka-imbwi/	‘small hyena’		AK
	<i>ka-úpa</i>		‘small bone’		AK

kaméembe /ka-membe/ ‘small fly’ AK

For further examples see the section on class 12 in 5.4.

5.6.2 Locatives

A noun can be preceded by the NCP of one of the locative classes 16, 17 and 18, to derive a locative noun. The NCP of the noun is retained when the locative NCP is added, as also reconstructed for PB (Meeussen 1967:99), and contrary to other forms of derivation as described above. In the following example, *kitélééko* ‘pot’ (cl.7) is preceded by the class 18 prefix *mu-*, which indicates location inside.

216. *mu-ki-télééko* ‘in the pot’ (cl.18) (HN)

Many of these locative nouns are used frequently in fixed expressions, as is the case with *kumigóvonda* ‘to/at the farmgrounds’. The plural of *ηηóvonda* /mu-gonda/ ‘cultivated ground, field’ (cl.3) is *migóvonda* in class 4. People have small plots of farmground next to each other in areas outside the villages, and these areas are referred to as *kumigóvonda*.

Certain locative nouns are formed with a locative NCP added to a noun, which is not, or rarely, used as an independent noun. This is the case with *póngóti* ‘bush’ (cl.9/10), which normally occurs with one of the locative prefixes.

217. *papongoti péene*

pa- pongoti pa- ene
16NCP- 9/10.bush 16Cd- self
‘in the forest itself’ (AK-E)

The noun *u-kááya* (or *u-káa*) ‘homeplace’ in class 14, from PB **kááyà*, appears in *pa-kááya* (cl.16) and *ku-kááya* (cl.17). The stem *-kááya* is not used independently.⁸⁰ When the ‘home’ is unspecified, the prefix *ku-* can be used:

⁸⁰ According to AK, *ukááya* is used when speaking of a homeplace in general, you are not necessarily there. On the other hand, *pakááya* is used when speaking of home when you are at home.

218. *Tupala utáma kukááya, si kuhotéli*

tu- pala utama ku- kaaya si ku- hoteli
 1pSM- want to.sit 17NCP- home not(Sw) 17NCP- 9/10.hotel(Sw)
 ‘We will stay with someone (at home), not in a hotel’ (HK-E)

The language consultant (AK) indicates that *pakiinza* ‘in/at the kitchen’ can be used without the locative prefix, but it does not occur as such in the data.

219. *ngóle abótóki pakiinza*

ngule a- botók -i pa- kinza
 9/10.rat 1SM- run -PFV 16NCP- stove
 ‘The rat ran into the kitchen’ (HK-E)

Locative nouns behave syntactically much like ordinary nouns and can control agreement (Schadeberg 2003a:82) (see also 7.5).

220. *pansengo ápa panógike*

pa- nsengo apa pa- nog -ike
 16NCP- 3.building 16.here 16SM- be.beautiful -PFV
 ‘This place is nice.’ (PK-E)

5.6.3 *Verb-to-noun*

A nominal stem can be related to a verbal base, in which case we speak of verb-to-noun derivation. An example of this is the class 7 noun *ki-wóo* ‘death’, related to the verb *-wa* ‘die’, with the nominal derivation final *-o* as reconstructed by Meeussen (Meeussen 1967:94). Several such derivational processes are widespread in Bantu languages. They involve the addition of a final vowel to a verbal base, and the assignment of the derived nominal to a noun class (Schadeberg 2003a:79).

In class 1, nouns can be derived from roots also used in other words. This is especially the case with professions, physical characteristics and the like:

- | | | | | | |
|------|------------------|------------------|------------------|----------------|----|
| 221. | <i>mpeléemba</i> | /mu-pelemba/ | <i>apeléemba</i> | ‘hunter’ | SS |
| | cf. the verb | <i>-péléemba</i> | | ‘hunt’ | |
| | <i>nyóbúilai</i> | /mu-yobúilai/ | | ‘investigator’ | AK |
| | cf. the verb | <i>-yóbúila</i> | | ‘investigate’ | |
| | <i>ntélékai</i> | /mu-telekai/ | | ‘cook’ | SM |
| | cf. the verb | <i>-téleka</i> | | ‘cook’ | |

<i>mmíje</i>	/mu-bije/	<i>a-bíje</i>	‘sick person’	HK
cf. <i>u-bíje</i> ‘sickness’ (cl.14)				
<i>mwáábi</i>	/mu-abí/	<i>bá-ábi</i>	‘bad person’	AK
cf. <i>bwáábi</i> /bu-abí/ (cl.14) ‘bad things, badness’				
<i>mú-úba oómba</i>			‘fisherman’	AK
cf. the verb <i>-úba</i> ‘fish’ (<i>oómba</i> ‘fish’ cl.9/10)				

Agentive nouns can also take the suffix *-ji/-yi*, as in *nnímaaji* /mu-lima-ji/ ‘farmer’. This is a suffix borrowed from Swahili, where it is a productive suffix added to the verb stem including FV *-a*, to indicate habituality or repetition (Mohammed 2001:30). In Ndengeleko *-j* only occurs in loans.

Noun class 7 can derive objects from verbs, as in *ki-láályo* ‘food’ related to the verb *-lyáa* /lí-a/ ‘eat’. This example presumably includes the final *-o*, mentioned above. Another example is *kiímbwa* ‘well’, related to the verb *-íimba* /-imba/ ‘dig’, with the passive *-o-*. The same noun stem occurs in class 5, *lyímbwa*, but then means ‘hole’ in general.

5.7 Personal pronouns

Personal pronouns are regarded as nominals, and belong to noun classes 1 and 2. They are used to refer to persons. In the literature, they are also referred to as substitutives.

Table 32 Personal pronouns

Person	Singular	Short form	Plural	Short form
1 st	<i>néenga</i>	<i>nee</i>	<i>twéenga</i>	<i>twee</i>
2 nd	<i>wéenga</i>	<i>wee</i>	<i>mwéenga</i>	<i>mwee</i>
3 rd	<i>ywéembe</i>	(<i>ywee</i>)	<i>béembe</i>	(<i>bee</i>)

The personal pronouns occur in a long and a short form, as the table shows. The forms are the same in subject and object position. The short form is not accepted in the third person, unless it is used in the emphatic construction as described below. Because of this variation, these forms are included in parentheses in the table. When the personal pronouns are used, this always implies a certain degree of emphasis on the person in question.

222. *andómbétuka néenga*

a- ando- ni- betuk -a nenga
 1SM- PRES.DJ- 1sOM- avoid -FV I/me
 ‘S/he is avoiding ME.’ (HK-E)

Otherwise the personal pronoun is dropped:

223. *andómbétuka*

a- ando- ni- betuk -a
 1SM- PRES.DJ- 1sOM- avoid -FV
 ‘S/he is avoiding me.’ (HK-E)

The personal pronoun can be given further emphasis by using the short form, preceded by *ene*. It is unknown to me if this uninflected word has any relatedness to the element *-ene*, described in section 6.9 below. Here, the third person can also be used in a short form. The 1st person singular differs from the other forms. These constructions are translated as ‘really it’s ...’.

Table 33 Emphatic constructions with personal pronouns

Person	Singular	Plural
1 st	<i>né yee</i>	<i>ené twee</i>
2 nd	<i>ené wee</i>	<i>ené mwee</i>
3 rd	<i>ené ywee</i>	<i>ené bee</i>

The clitic *ngi=* can precede a personal pronoun as a conjunction, to mean ‘and’:

224. *ngi=neenga* ‘yes, it’s me’ (AK-E)

This clitic can also be used with the short form of the personal pronoun:

225. *ngi=mwee* ‘yes, it’s you (pl.)’ (AK-E)

But preceded by *ngi*, the third person singular form is *yee* rather than the form *ywe* presented in Table 32:

226. *ngi=yee* ‘yes, it’s him’ (AK-E)

This emphatic construction can also be negated, with the negator *kwáako*. The short form of the pronoun is preferred here. In the third person, on the other hand, the short form is not accepted in the negative construction.

227. *ne kwáako/neenga kwáako* ‘it’s not me’
 228. *yweembe kwáako* ‘it’s not him’
 229. **be kwako* ‘it’s not them’

5.8 Interrogatives

Interrogatives in Ndengleko are expressed by uninflected nominals which function as question words. There are two inflected interrogatives (see section 6.10).

Table 34 Interrogatives in Ndengeleko

Interrogative	Translation
<i>jaái</i>	‘who’
<i>liniki</i>	‘when’
<i>búli</i>	‘how’
<i>kiíli</i>	‘what’

230. *angéma jaái?*

a- ni- kem -a jaai
 1SM- 1sOM- call -FV who
 ‘Who is calling me?’ (HK-E)

231. *atúmbwi liniki kasi íyo?*

a- tumbu -i liniki kasi íyo
 1SM- start -PFV when 9/10.work(Sw) 9/10.that(ref)
 ‘When did he start that work?’ (AK-E)

232. *upála kiíli?*

u- pal -a kiíli
 2sSM- look.for -FV what
 ‘What are you looking for?’ (HK-E)

‘Why’ is also expressed by using *kiíli*:

233. *ukáni kílí kumbákíya, kanítúmbwa kulíma?*

u- kan -i kílí ku- ni- bakíy-a
2sSM-refuse -PFV what 15NCP- 1sOM-tell -FV

ka- ni- tumbu -a kulíma
DST- 1sSM-begin -FV to.cultivate

‘Why didn't you tell me before I started cultivating?’ (TO-S)

The word *kílí* appears to belong to class 7, as we can see in the agreement of the demonstrative in the following example. The prefix *ki-* has presumably assimilated to a stem *ilí*, which is not used elsewhere in the data.

234. *kílí iso utenda kati mwánansimaana?*

kílí iso u- tend -a kati mwanansimaana
what 7.that(ref) 2sSM- act -FV like 1.small.child

‘Why are you acting like a small child?’ (HK-E)

5.9 Summary

The Ndengeleko nouns are divided across 18 noun classes which can be singular or plural. Specific meanings of these noun classes are in line with those found for other Bantu languages. As these specific meanings have been blurred by numerous exceptions in each class, semantic generalisations are not considered meaningful and have been avoided in this work.

There are regular pairings of a singular noun class with a plural noun class in Ndengeleko. However, certain plural noun classes, especially noun class 6, can be used as a plural for virtually any singular class. This renders the number of possible singular-plural pairings numerous.

There are also noun classes which have the function of deriving nouns from stems used in other classes. This is the case with the diminutive class 12 and the locative classes 16-18. Other noun classes, such as class 5, have a regular as well as a derived meaning. Augmentatives in class 5 take a plural in class 4, which is rare in a Bantu comparative perspective.

6. Adnominals

6.1 Introduction

The meaning of a head noun can be modified by noun phrase constituents such as adjectives, possessives, quantifiers and other nouns in the associative construction. For the convenience of referring to all these different modifying constituents with a single term, I follow Maho (1999:100) here and label them adnominals. In this chapter these adnominals are presented. In 6.2, agreement within the noun phrase is discussed and the different prefixes for each class are listed. Thereafter, the adnominals are treated one by one, starting with the adjectives (6.3). Adjectives differ from the other adnominals in agreement behaviour: they take the NCP⁸¹ as the agreement prefix and not the concord (see Table 35). Adnominals which take the concord follow, starting with the associative construction (6.4) and proceeding with possessives (6.5), demonstratives (6.6), numerals (6.7), quantifiers (6.8) and inflected interrogatives (6.10).

6.2 Agreement within the noun phrase

The adnominals in Bantu languages are often presented in groups according to which set of agreement prefixes they use. Meeussen (1967:96) distinguishes between the nominal prefix (NP, called NCP in this work) in nouns, locatives and adjectives; the numeral (enumerative) prefix (EP) in words for the numbers ‘one’ to ‘five’ and ‘how many’; and the pronominal prefix (PP) in all other categories. This table aims at showing the variation in concord marking, although minor, between the different adnominal categories. These concords are however not analysed as separate categories, and are all labelled ‘concord’ (Cd) in glossed examples. The NCP is the agreement marker on adjectives. It is also used in locatives (see section 5.6.2). Other categories take the concord.

Table 35 The noun class prefixes and concords of Ndengeleko

Cl.	NCP	Cd demonstratives	Cd associative /possessive	Cd numerals	Cd quantifiers
1	<i>mŭ-</i>	<i>yŭ-</i>	<i>u-</i>	<i>yu-</i>	<i>yu-</i>
2	<i>b(a)-</i>	<i>ba-</i>	<i>ba-</i>	<i>(b)a-</i>	<i>ba-</i>

⁸¹ As introduced in section 5.2.

3	<i>mɔ-</i>	<i>gɔ-/wɔ-</i>	<i>u-</i>	<i>gu-</i>	<i>u-</i>
4	<i>mi-</i>	<i>yi-</i>	<i>i-</i>	<i>i-</i>	<i>i-</i>
5	<i>li-</i>	<i>li-</i>	<i>li-</i>	<i>li-</i>	<i>li-</i>
6	<i>ma-</i>	<i>ga-</i>	<i>ga-</i>	<i>ma-/ga-</i>	<i>ga-</i>
7	<i>ki-</i>	<i>si-/ki-</i>	<i>si-</i>	<i>si-/ki-</i>	<i>si-/ki-</i>
8	<i>i-</i>	<i>yi-</i>	<i>i-</i>	<i>i-</i>	<i>i-</i>
9/10	<i>N-</i>	<i>yi-</i>	<i>i-</i>	<i>(y)i-</i>	<i>i-</i>
11	<i>lɔ-</i>	<i>lɔ-</i>	<i>lu-</i>	<i>lu-</i>	<i>lu-</i>
12	<i>ka-</i>	<i>ka-</i>	<i>ka-</i>	<i>ka-</i>	<i>ka-</i>
14	<i>(b)ɔ-</i>	<i>(g)ɔ-</i>	<i>(g)u-</i>	<i>gu-</i>	<i>u-</i>
15	<i>(k)ɔ-</i>	<i>kɔ-</i>	<i>ku-</i>	<i>ku-</i>	<i>ku-</i>
16	<i>pa-</i>	<i>pa-</i>	<i>pa-</i>	<i>pa-</i>	<i>pa-</i>
17	<i>kɔ-</i>	<i>kɔ-</i>	<i>ku-</i>	<i>ku-</i>	<i>ku-</i>
18	<i>mɔ-</i>	<i>mɔ-</i>	<i>mu-</i>	<i>mu-</i>	<i>mu-</i>

The concords used in different categories of adnominals are rather similar in form. Differences mainly concern noun classes 1 and 3. However, there is also some variation in the forms of other concord markers, and for all classes, the quality of the vowel in the demonstrative prefix is lower than in the other concord markers. For noun classes 3 and 14, the prefix is *gu-* or *gɔ-*, but the *g* is optional and may be in the process of being lost. The concord of noun class 7 displays variation between *s-* and *k-*. Preceding a vowel-initial stem, the form with *s-* is used, and the vowel of the class 7 concord assimilates to the stem-initial vowel (see section 4.5.3).⁸² The NCP is always *ki-*. Further exemplification is given in the section on each different adnominal.

Within the NP, adnominals normally follow the noun they modify.

235. *malómbé mabíi*

malombe ma- bii
 6.maize 6NCP- unripe
 ‘unripe maize’ (AK-E)

The demonstratives can precede the noun, however.

236. *Sása utóole iyí dáwa..*

sasa u- tool -e iyí lawa
 now (Sw) 2sSM- take -SUBJ 9/10.this 9/10.medicine
 ‘Now you take this medicine..’ (TO-S)

⁸² The same is true for the subject marker of class 7.

When more than one adnominal is used, demonstratives occur first.

237. *ipílílí ába abílí akólo akólo báangú*

ipílílí aba a- bílílí a- kólo a- kólo b- aangú
 8.scorpions 2.these 2Cd-two 2NCP- big 2NCP- big 2Cd-1sPOSS
 ‘These two big spiders are mine.’ (AK-E)

A quantifier can precede the demonstrative however:

238. *Utóóle lawa yíngine iyí.*

u- tol -e lawa i- ingine iyí
 2sSM- take -SUBJ 9/10.medicine 9/10Cd- another 9/10.this
 ‘Take this other medicine..’ (TO-S)

The adnominals enter into a syntactically dependent relationship with the noun to be modified. This relationship is evident through agreement morphology on the adnominals, governed by the head noun. Agreement is exemplified here with a demonstrative and an adjective:

239. *mwana yóno nsíni*

mwana yó- no mu- síni
 1.child 1Cd- this 1NCP- small
 ‘this child is small’ (PK-E)

240. *mafínga gáno masíni*

mapínga ga- no ma- síni
 6.egg 6Cd- this 6NCP- small
 ‘these eggs are small’ (PK-E)

The head noun in example 239, *mwáána* /mu-ana/ ‘child’, is a noun of noun class 1. The demonstrative takes the concord prefix of noun class 1, which is *yó-*. The adjective also agrees with noun class 1. The adjective takes the same prefix as the noun itself, the Noun Class Prefix (NCP), which is reduced to *n-* in this case (see section 3.3.2).

In example 240, the head noun is a plural of noun class 6, *mafínga* /mapínga/ ‘eggs’. The demonstrative takes the concord *ga-* of class 6, and the adjective takes the NCP *ma-* of class 6.

The examples show grammatical agreement – agreement according to the noun class of the head noun. There are other cases, however, in which semantic

principles govern the choice of agreement markers. These cases include animacy considerations, and will be the topic of chapter 7.

Although the label ‘adnominal’ is used here, the adnominals can also be used independently without the nominal. In these cases, agreement of the omitted noun is maintained.

241. *kibɪga saákó?*

kibɪga si- ako
7.cooking pot 7Cd- 2sPOSS
‘(is this) your pot?’ (HK-E)

242. *sáángu*

si- angu
7Cd- 1sPOSS
‘(it is) mine’ (HK-E)

243. *ntópɔ*

mu- tɔpɔ
1NCP- without
‘a person without (s/he doesn't have)’ (AK-E)

6.3 *Adjectives*

In their function as adnominals, adjectives are used in a noun phrase to specify some property of the head noun of the phrase (Payne 1997:63). Bantu languages are known to have a rather minor class of Adjective (Dixon 1982:4), with membership ranging from less than ten items to forty or fifty. This holds for Ndengeleko as well, where property concepts are often expressed by verbs or nouns. Because adjectives take the same prefix as the noun itself, they are sometimes referred to as (dependent) nominals (Schadeberg 1992:16); (Seidel 2008:101).

244. *kyimbwa kiyómɔ*

kimbwa ki- yomɔ
7.well 7NCP- dry
‘dry well’ (AK-E)

Adjectives can in principle be associated with any noun class by means of an NCP.

245. *malómbé mayómɔ*
 malombe ma- yómɔ
 6.maize 6NCP- dry
 ‘dry maize’ (AK-E)

6.3.1 Semantic properties

Dixon (1982) presents a taxonomy of adjectives along semantic lines, derived from universal semantic types that apply to all parts-of-speech. Seven such semantic types are relevant for adjectives (Dixon 1982:16).

These are dimension (e.g. big, small, wide), physical property (e.g. hard, soft, smooth), colour (e.g. black, red), human propensity (e.g. happy, clever, wicked), age (e.g. new, young, old), value (e.g. good, bad, proper) and speed (e.g. quick, slow).

The table presents the 18 Ndengeleko adjectives which have been elicited or which appear in narratives. This is not to say that these are the only adjectives in the language; there might of course be others that I have missed. However, it is not likely that the word class is much bigger than this.

Table 36 Adjective stems in Ndengeleko

1.Dimension	-kólɔ	‘big’
	-síni	‘small’
	-sónɔ	‘small’
	-láásɔ	‘long, high’
	-ípi	‘short’
	-pána	‘broad’
	-tálu	‘far’
2. Physical property	-bíi	‘unripe, hard’
	-bóóu	‘rotten’
	-yómɔ	‘dry’
	-póóu	‘cool’
	-tóondwa /-tondwa/	‘found’
	-tópɔ	‘without’
	-sápu	‘dirty’
3.Colour	-piili	‘black’
	-úu	‘white’
	-kéele	‘red’
4.Human propensity	-pána	‘wealthy’
5. Age	-kólɔ	‘old’
	-bíi	‘young’

6. Value	- <i>kóto</i>	‘fine’
7. Speed		

Not all semantic types are filled. Type 7 ‘speed’ is empty, for more on this see below. There are a few antonyms, big vs. small (see example 257), and long vs. short.

246. *lubáánja lukólo*

lubanza lu- kólo
 11.plot 11NCP- big
 ‘a big plot’ (HK-E)

247. *áanzu ndáúsó*

anzu N- laasó
 9/10.firewood 9/10NCP- long
 ‘long firewood’ (AK-E)

248. *nkólongwa mwípi*

nkólongwa mu- ipi
 1.man 1NCP- short
 ‘a short man’ (AK-E)

There is also an adjective *-pána* ‘broad’ without the opposite ‘narrow’. The adjective *-sini* ‘small’ is used instead.

Several of the adjectives have a broader semantic range than their translation suggests, and can cover the other semantic types as well. They are therefore written more than once in the table. For example, *-pána* ‘broad’ means ‘wealthy’ when referring to a human being. Likewise, the adjective *-bíi* ‘unripe, hard’ can also be used with reference to humans, with the meaning ‘young and strong’.

249. *baandu abíi*

bandu a- bíi
 2.people 2NCP- unripe
 ‘young, strong people’ (AK-E)

However, it appears that these ‘secondary’ uses of the adjectives are limited to certain expressions, and not entirely productive.

The table shows us that the first three semantic types are covered to some extent by adjectives in Ndengeleko. Colour terms are limited to the three basic concepts ‘white’ (or rather ‘light’), ‘black’ (or rather ‘dark’) and ‘red’. The ‘blackness’ in example (250) is reinforced by the ideophone *píi*:

250. *ywaa múundu mpíili píi*

yu-aa mundu mu- piili pii
1Cd-that 1.person 1NCP-black very
'That person is very black.' HK-E)

For other colour terms, speakers code switch to Swahili. For the other semantic concepts, adjectives are very few or non-existent. Adjectival concepts are in many cases expressed by nouns in the associative construction, and especially by verbs. Value is expressed by verbs such as 'be good' and 'be bad', for example. Some physical properties like 'bitter', 'sick', 'angry' and others are expressed by verbs as well. The constructions with nouns are described in section 6.4 on the associative construction, for example *yáambi* 'new' in example (267). The constructions with verbs appear in the sections on the infinitive (10.3), the present (10.6.1) and the perfective (10.8.3). 'Speed' is expressed by means of verbal constructions with adverbs, e.g. *kandénde* 'slowly'.

There are two adjectival stems with the meaning 'small, few'; *-síni* and *-sónu*. Any difference between the two has not been established. Both forms have been given with the translation 'small', as well as 'few'.

6.3.2 Form

The NCP as used with adjectives shows some formal differences from the NCP as used with nouns. Nouns in class 2 take the NCP *ba-* preceding vowel-initial stems. The NCP of noun class 2 which is used with adjectives, however, is always *a-*, even with vowel-initial stems, as in *mbésa a-úu* 'white hares'.

For class 8, the NCP used with nouns is *i-*. With adjectives, the NCP is a homorganic nasal *N-*, just as with class 9/10. However, *i-* may be heard as a NCP with adjectives as well. For example, *indángwála nzápu* is accepted, as well as *indángwála isápu*, both meaning 'dirty chairs'.

Furthermore, the adjectival NCP used with noun class 14 is *mu-*, and not the *(b)u-* prefix used with nouns. The prefix *mu-* undergoes the relevant morphophonological processes, which means the adjectival form of class 14 (251) is the same as that of class 1 (252) and 3 (253).

251. *ulingo nsápu*

ulingo mu- sapu
 14.farmhouse 14NCP- dirty
 ‘dirty farmhouse’ (AK-E)

252. *mwana nsápu*

mwana mu- sapu
 1.child 1NCP- dirty
 ‘dirty child’ (AK-E)

253. *nkákaasi nsápu*

nkakasi mu- sapu
 3.mug 3NCP- dirty
 ‘dirty mug’(AK-E)

A few examples in Table 36 are the result of derivation from verbs by means of a suffix *-u*, which has also been reconstructed for PB (Meeussen 1967:95). The consonant in adjectival stems preceding this high vowel is subject to the processes of spirantisation and consonant loss (see section 3.4 for an analysis of this). A phrase like ‘the orange is rotten’, can be expressed in two ways in Ndengeleko, with roughly the same meaning; with an adjective in (254) and with a verb in (255). Note that the verb stem in (255) has also undergone spirantization and consonant loss under the influence of perfective *-i*.

254. *lisúúngwa libóóu*

lisungwa li- bou
 5.orange 5NCP- rotten
 ‘rotten orange’ (HK-E)

255. *lisúúngwa libóói*

lisungwa li- boi
 5.orange 5SM- rot.PFV
 ‘the orange has/is rotten’ (HK-E)

The productive patterns for forming deverbal adjectives in *-a* as reported for Matuumbi (Odden 1996:55), e.g. *temáá* ‘chopped’ from *téma* ‘to chop’, have not been encountered in Ndengeleko.

The adjective *-úu* ‘white’ might also involve the adjectival suffix *-u*. The adjective consists of the NCP and the stem in a long vowel. In class 9/10, there is no NCP, and only the vowel remains.

256. *mbaa úu*

mbaa uu
9/10.rice white
'white rice' (AK-E)

Certain speakers use the class 5 form with all noun classes, as in *lupába lyúu* (HK) instead of *lupába lúu* (AK).

In Matuumbi, adjectives agreeing with plural heads reduplicate the entire adjective, as for example in *a-télekí a-kúlu a-kúlu ba-wiile* 'The large cooks are dead' (Odden 1996:22). This is possible also in Ndengeleko, see example 237, but not compulsory.

6.3.3 *Function*

There appears to be no difference, either segmental or prosodic, between the attributive and predicative functions of adjectives in Ndengeleko (see section 12.1). The example in 257 therefore has the meaning 'small cups' or 'the cups are small'.

257. *makópó masóno*

makopo ma- sono
6.metal.pot 6NCP-small
'small cups' (HK-E)

Some further examples of the Ndengeleko adjectives are the following:

The adjective *-tálu* means 'far'.

258. *Kibíti kutálu*

Kibiti ku- talu
Kibiti 17NCP- far
'Kibiti is far.' (AK-E)

The adjective *-láaso* 'long' can also be used for distance, with the prefix of the locative noun class 17:

259. *Kibíti kulaáso*

Kibiti ku- laaso
Kibiti 17NCP- long
'Kibiti is far.' (AK-E)

The adjective *-tóondwa* is used for something or someone that is found.

260. *lusási lutóondwa*

lusasi lu- tondwa
 11.bed 11NCP- found
 ‘found bed’ (AK-E)

261. *mwánaa ntóondwa*

mwana mu- tondwa
 1.child 1NCP-found
 ‘foundling’ (AK-E)

There are no comparative forms of the adjectives in Ndengeleko.

6.4 *The associative construction*

The associative *-a*, preceded by the concord, is used in many constructions in which the head noun is modified in some way by another noun, including the infinitive, which has the form of a noun, in noun class 15. The associative construction is often used to indicate a possessive relationship. Like other adnominals, the associative follows the head noun, and is in turn followed by the modifying noun.

262. *majéi ga mpóonga*

majei ga- a mponga
 6.grass 6Cd- of 3.rice.plant
 ‘leaves of rice’ (HK-E)

6.4.1 *Form*

In the following table the forms of the associative marker used for the different noun classes are listed.

Table 37 **The associative**

cl.	Cd	Associative stem	Full form
1	<i>u-</i>	<i>a</i>	<i>wa</i>
2	<i>ba-</i>	<i>a</i>	<i>ba</i>
3	<i>u-</i>	<i>a</i>	<i>wa</i>
4	<i>i-</i>	<i>a</i>	<i>ya</i>

5	<i>li-</i>	<i>a</i>	<i>lya</i>
6	<i>ga-</i>	<i>a</i>	<i>ga</i>
7	<i>si-</i>	<i>a</i>	<i>sa</i>
8	<i>i-</i>	<i>a</i>	<i>ya</i>
9	<i>i-</i>	<i>a</i>	<i>ya</i>
11	<i>lu-</i>	<i>a</i>	<i>lwa</i>
12	<i>ka-</i>	<i>a</i>	<i>ka</i>
14	<i>(g)u-</i>	<i>a</i>	<i>(g)wa</i>
15	<i>ku-</i>	<i>a</i>	<i>kwa</i>
16	<i>pa-</i>	<i>a</i>	<i>pa</i>
17	<i>ku-</i>	<i>a</i>	<i>kwa</i>
18	<i>mu-</i>	<i>a</i>	<i>mwa</i>

The associative (as well as the possessive) is not used with the full form of the concord of noun class 1, *yu-*. Rather, the concord is *u-*, which turns into a glide followed by the associative. In noun class 2 on the other hand, the short form *a-* is never used; the concord is always *ba-*. In noun class 14, the form is *gwa* or *wa*. The vowel of the associative is always short (see section 4.7.1).

6.4.2 Function

Different kinds of association can be expressed with this construction, including possession, quantity and prepositional constructions.

263. *mwana wa úvbi akosa kwá maléembele*

mwana u- a úvbi a- kos -a kwa malembele
 1.child 1Cd-of 9/10.leopard 1SM- lack -FV NEG 6.spot
 ‘The child of a leopard doesn’t lack spots.’ (HK-E)
 (= ‘like father, like son’)

264. *mayígyo ga jánsima*

mayígyo ga- a jánsima
 6.words 6Cd- of a.lot
 ‘many words’ (AK-E)

265. *pái pa nkóongo*

pai pa- a nkongo
 down 16Cd- of 3.tree
 ‘under the tree’ (HK-E)

266. *igóombo ya kukási*

igombo i- a ku- kasi
8.tools 8Cd- of 17NCP- work
'working tools' (TN-E)
(=tools used at working place)

Adjectival concepts can also be expressed with an associative marker and a noun, including a verbal noun. The prefix of the verbal noun (noun class 15) in such constructions is *u-* (example 268) or *ku-* (269).

267. *kilibe sa yáambi*

kilibe s- a yambi
7.thing 7Cd- of 9/10.new
'new thing' (AK-E)

268. *igóombo ya ulímya*

igombo i- a ulímya
8.tools 8Cd- of to.cultivate.with
'cultivating tools' (TN-E)

269. *nsééngo wa kwákála*

nsengo u- a kuakala
3.building 3Cd- of to.be.bad
'a bad house' (HK-E)

In Ndengeleko, there is also a negative construction formed with the copula *ngée*:

270. *ηηóoi ngée ηυumba*

ηηoi ngee ηumba
1.old.person without 9/10.house
'an old man who doesn't have a house' (AK-E)

271. *ηóombe ngée lipembe*

ηombe ngee lipembe
9/10.cattle without 5.horn
'cow without horns' (AK-E)

In other classes than noun class 1, *ngée* is preceded by a concord, followed by the vowel *a*. It seems plausible that this is the associative construction.

272. *magéembe ga ngée mitoope*
 magembe ga- a ngee mitoope
 6.hoes 6Cd- of without 4.sticks (of axe)
 ‘hoes without mud’ (AK-E)

273. *kindángwáála sa ngée lwaaga*
 kindangwala s- a ngee luaga
 7.stool 7Cd- of without 11.headboard
 ‘a chair without headboard’ (AK-E)

274. *bokobóko ya ngée mwijno*
 bokoboko i- a ngee mwijno
 9/10.banana.stew 9/10Cd- of without 3.salt
 ‘banana stew without salt’ (AK-E)

6.5 Possessives

As well as with the associative construction, possession can be expressed by the possessive adnominal.

275. *nnima wítu*
 nnima u- itu
 3.land 3Cd- 1p.POSS
 ‘our country, homeland’ (SS-E)

6.5.1 Form

The possessive stem takes the same concord as the associative.⁸³ The concords ending in *-a*, followed by the vowel-initial stem, result in a long vowel (see section 4.5.3). This is also the case with the 1st and 2nd person plural of class 5, e.g. *líitú* /li-itu/ ‘our’. Due to glide formation and compensatory lengthening (section 4.6.1) after concords ending in *-i* and *-u*, as well as lengthening preceding NC-sequences (section 4.6.2), all possessives have long vowels.

⁸³ For this reason, the possessive pronouns are sometimes analyzed as consisting of the associative followed by the possessive stem (Maganga and Schadeberg 1992:92).

Table 38 The possessives

Possessee		Possessor					
cl.	Cd	1 st person sg.	2 nd person sg.	3 ^d person sg.	1 st person pl.	2 nd person pl.	3 ^d person pl.
Stem		-angv	-ako	-ake	-itv	-inv	-abe
1	u-	wáangv	wáako	wáake	wíitv	wíinv	wáábe
2	ba-	báangv	báako	báake	bíitv	bíinv	báábe
3	u-	wáangv	wáako	wáake	wíitv	wíinv	wáábe
4	i-	yáangv	yáako	yáake	yíitv	yíinv	yáábe
5	li-	lyáangv	lyáako	lyáake	líitv	líinv	lyáábe
6	ga-	gáangv	gáako	gáake	gíitv	gíinv	gáábe
7	si-	sáangv	sáako	sáake	síitv	síinv	sáábe
8	i-	yáangv	yáako	yáake	yíitv	yíinv	yáábe
9/10	i-	yáangv	yáako	yáake	yíitv	yíinv	yáábe
11	lu-	lwáangv	lwáako	lwáake	lwíitv	lwíinv	lwáábe
12	ka-	káangv	káako	káake	kíitv	kíinv	káábe
14	u-	wáangv	wáako	wáake	wíitv	wíinv	wáábe
15	ku-	kwáangv	kwáako	kwáake	kwíitv	kwíinv	kwáábe
16	pa-	páangv	páako	páake	píitv	píinv	páábe
17	ku-	kwáangv	kwáako	kwáake	kwíitv	kwíinv	kwáábe
18	mu-	mwáangv	mwáako	mwáake	mwíitv	mwíinv	mwáábe

6.5.2 Function

The following are some examples of the possessive construction.

276. *nkebe wáangv utéalibika*

nkebe u- angv u- te- alibik -a
 3.mug 3Cd- 1sPOSS 3SM- COMPL- break(Sw)-FV
 ‘My mug broke.’ (HK-E)

277. *ywaa ngóko akáánsike mapinga gáake*

yv- aa ngvkv a- kanz -ike mapinga ga- ake
 1Cd-that 9/10.hen 1SM- break -PFV 6.egg 6Cd- 3sPOSS
 ‘That hen broke her eggs.’ (to help the chicken come out) (HK-E)

Kinship terms behave differently in terms of expressing possession. It is possible to use an enclitic *-gwe* (sometimes *-ge*) meaning ‘his/her’, which occurs on the possessed noun.

278. *Atekúntola mwanagé nsíni ...*

a- te- ku- mu- tol -a mwana -ge mu- sini
1SM- COMPL- 15NCP- 1OM- take -FV 1.child -his/her 1NCP- small
'He took his small child ...' (TO-S)

279. *Atekúmmakiya jñómbógwe, ...*

a- te- ku- mu- bakiy -a jñumbo -gwe
1SM- COMPL- 15NCP- 1OM- tell -FV 1.wife -his/her
'He told his wife, ...' (TO-S)

The noun *mwáána* 'child' or *báána* 'children' can also take a possessive directly on the noun in a contracted form. The last vowel of the noun is dropped and the vowel of the noun stem shortens:

280. *Banáangũ batwéti lisíniya usoka.*

baana angũ ba- tweti lisiniya usoka
2.children 1sPOSS 2SM- take.PFV 5.plate(Sw) to.wash
'My children have taken the plates to wash.' (HN-D)

6.6 *Demonstratives*

There are numerous demonstratives in Ndengeleko. This section starts with an overview of the different demonstratives in 6.6.1, followed by a discussion of the use of these demonstratives in 6.6.2, in terms of syntax and pragmatics. After that, the form, semantics and special usages of each demonstrative will be analysed.

6.6.1 *Form*

In Table 39 the different demonstratives are listed, with the corresponding form for each noun class. The demonstrative concord takes the second degree high vowels, rather than the first degree high vowels used in other concords.⁸⁴ This is also the case in Matuumbi (Odden 1996:34). As will be apparent later, the exact semantic distinction between the different demonstratives translated with 'this', and the ones translated with 'that' is not known.

⁸⁴ For some speakers, the vowel is even lower; e.g. they say *eye* 'this' rather than *ɲy*.

Table 39 Demonstratives in Ndengeleko

cl.	Cd	Cd- <i>no</i> 'this'	V-Cd 'this'	V-Cd- <i>o</i> 'this' (ref) ⁸⁵	Cd- <i>aa</i> 'that'	Cd- <i>lyo</i> 'that'
1	<i>yɔ-</i>	<i>yóno</i>	<i>óyɔ</i>	<i>óyo</i>	<i>ywáa</i>	<i>yólyɔ</i>
2	<i>ba-</i>	<i>báno</i>	<i>ába</i>	<i>ábo</i>	<i>báa</i>	<i>bályɔ</i>
3	<i>(g)ɔ-</i>	<i>góno</i>	<i>ógɔ</i>	<i>ógo</i>	<i>wáa</i>	<i>gólyɔ</i>
4	<i>ɪ-</i>	<i>yíno</i>	<i>íyɪ</i>	<i>íyo</i>	<i>yáa</i>	<i>yílyɔ</i>
5	<i>li-</i>	<i>líno</i>	<i>ílɪ</i>	<i>ílo</i>	<i>lyáa</i>	<i>lílyɔ</i>
6	<i>ga-</i>	<i>gáno</i>	<i>ága</i>	<i>ágo</i>	<i>gáa</i>	<i>gályɔ</i>
7	<i>si-</i>	<i>síno</i>	<i>ísɪ</i>	<i>íso</i>	<i>sáa</i>	<i>sílyɔ</i>
8	<i>ɪ-</i>	<i>yíno</i>	<i>íyɪ</i>	<i>íyo</i>	<i>yáa</i>	<i>yílyɔ</i>
9	<i>ɪ-</i>	<i>yíno</i>	<i>íyɪ</i>	<i>íyo</i>	<i>yáa</i>	<i>yílyɔ</i>
11	<i>lɔ-</i>	<i>lóno</i>	<i>ólɔ</i>	<i>ólo</i>	<i>lwáa</i>	<i>lólyɔ</i>
12	<i>ka-</i>	<i>káno</i>	<i>áka</i>	<i>áko</i>	<i>káa</i>	<i>kályɔ</i>
14	<i>(g)ɔ-</i>	<i>góno</i>	<i>ógɔ</i>	<i>ógo</i>	<i>wáa</i>	<i>gólyɔ</i>
15	<i>ɔ-</i>	<i>kóno</i>	<i>ókɔ</i>	<i>óko</i>	<i>kwáa</i>	<i>kólyɔ</i>
16	<i>pa-</i>	<i>páno</i>	<i>ápa</i>	<i>ápo</i>	<i>páa</i>	<i>pályɔ</i>
17	<i>kɔ-</i>	<i>kóno</i>	<i>ókɔ</i>	<i>óko</i>	<i>kwáa</i>	<i>kólyɔ</i>
18	<i>mɔ-</i>	<i>móno</i>	<i>ómɔ</i>	<i>ómo</i>	<i>mwáa</i>	<i>mólyɔ</i>

6.6.2 Function

In the *exophoric* use, demonstratives always follow the noun they modify in Ndengeleko, although there seem to be some exceptions to this, as we will see later.

281. *nkongo góno nnáásɔ*

nkongo gɔ- no mu- laasɔ
 3.tree 3Cd- this 3NCP- long
 'This tree is tall.' (PK-E)

Exophoric demonstratives focus the hearer's attention on entities in the situation surrounding the interlocutors (they are 'pointers', as in 'this finger hurts').

In the *anaphoric* use, however, the Ndengeleko demonstratives appear to always precede the noun and are mostly used adnominally:

⁸⁵ I.e. the referential demonstrative, see below.

282. *atekúmmakiya njómbógwe, oyo njómbógwe atekúmmakiya...*

a- te- ku- mu- bakiy -a njumbo -gwe
1SM- COMPL- 15NCP- 1OM- tell -FV 1.wife -his/her

oyo njumbo -gwe a- te- ku- mu- bakiy -a
1.that (ref) 1.wife -his/her 1SM-COMPL- 15NCP- 1OM- tell -FV

‘He told his wife, and then that wife told him,’ (TO, story)

Anaphoric demonstratives are used to track participants of the preceding discourse, referring back to a noun or noun phrase. They are often used in the second mention of a referent, establishing this referent as the new topic of the discourse.

The man, who is the topic of the first part of the sentence in example 282 (and of the preceding discourse), tells (something to) his wife, who is mentioned for the first time. In the second mention of the wife, the demonstrative is used anaphorically and establishes the wife as the new topic. This kind of use of demonstratives is especially common in languages that do not have a definite article (Diessel 1999:98).

The demonstrative can occur without the head noun, especially if it refers to a place, as the demonstratives of noun classes 16-18 do, e.g. the demonstrative *kólyu* ‘there’ in the following example, which refers back to *mahakamani* ‘to the court’.⁸⁶

283. *Baa akólóngwa kuyénda mpaka mahákámani. Kwika kólyó, batélongeela,*

ba- aa akolongwa kuyenda mpaka mahakamani
2Cd-that 2.men to.go until(Sw) court(Sw)

kuika kolyu ba- te- longeel -a
to.arrive 17.there 2SM- COMPL- talk -FV

‘Those men went to the court. When they arrived there, they talked.’ (TO-S)

Diessel (1999) has identified a number of other functions of demonstratives, some of which occur in Ndengeleko as well. *Discourse deictic* demonstratives refer to elements of the surrounding discourse, but are not co-referential with a prior NP like the anaphoric ones. They focus the hearer’s attention on aspects of meaning, expressed by a clause, a sentence, a paragraph or an entire story, and establish a link between two propositions. The discourse they refer to can precede or follow

⁸⁶ This Swahili word includes a locative suffix *-ni*, ‘at/in/to the court’. In Ndengeleko, this is expressed with the NCP of classes 16-18.

the demonstrative (Diessel 1999:101-103). In surrounding Bantu languages, the demonstrative of noun class 8, which can be used as a manner demonstrative, also functions as a discourse deictic. For example, in Swahili, *amesema hivi* ‘he said this’ anticipates upcoming information expressed in the subsequent clause. The following is a Ndengeleko example with the referential demonstrative used for this purpose, in bold, linking the two clauses with each other:

284. *Shauli yááko leelo mana uyééi polisi mana uyéi kwááko, **iyó** lélo utanga mwéene*

shauli i- ako leelo mana u- yeei polisi
 problem(Sw) 9/10Cd- 2sPOSS now if 2sSM- go.PFV 9/10.police(Sw)

mana u- yeei kwaku iyo leelo u- tang -a mu- ene
 if 2sSM- go.PFV NEG 9/10.that(ref) now 2sSM- know -FV 1NCP- self

‘Well, it’s your problem if you’re going to the police or not, that you have to know yourself.’ (TO-S)

Recognitional demonstratives are only used adnominally and are used to activate specific shared knowledge that is not mentioned in the preceding discourse. An example is the following:

285. *aabwii ayééi kumatómbi **úko**,*

a- bwii a- yeei ku- matombi uko
 1SM- return.PFV 1SM- go.PFV 17NCP- 6.hills 17.there (ref)

‘He returned and went to the hills over there,’ (TO-S)

The hills in this example were not mentioned earlier in discourse and did not have to be, as they express information that is familiar to the hearer. The only hilly area around the Rufiji is to the south, where the Matuumbi people live.

The demonstratives of noun classes 16-18, which are the locative classes, are used as place and/or time deictics. They are mostly used independently but can also occur adnominally in an exophoric way:

286. *panséngo **ápa** panógike*

pa- nsengo apa pa- nog -ike
 16NCP- 3.building 16.here 16SM- be.beautiful -PFV

‘This place is nice.’ (PK-E)

Distal and referential demonstratives are also used in what resembles a relative clause construction, as illustrated in (287) to (291).

287. *Ámedi yolyó nnaaso ywáa ayími kyóogo*
 Amedi yó- lyó mu- laaso yó- aa a- yim -i kyóogo
 Ahmed 1Cd-that 1NCP- long 1Cd- that 1SM- stand -PFV behind
 ‘Ahmed is that tall one who stands in the back.’ (AK-E)

288. *baa báandu báisi kuñnópa Habibu amishéeni*
 ba- aa baandu ba- is -i ku- mu- yop -a
 2Cd-that 2.people 2SM- come-PFV NCP15- 1OM- ask.for -FV

Habibu amisheeni
 Habibu 2.christians/missionaries

‘The people who came to ask for Habibu were Christians’ (HK-E)

289. *kwaa kúundu nibéliikwe kunógike*
 ko- aa kundu ni- beliikwe ku- nog -ike
 17Cd- that 17.place 1sSM- be.born.PFV 17SM- be.beautiful -PFV
 ‘The place where I grew up is beautiful.’ (HK-E)

290. *úwi ywaa aisi páno, bammólige bááandu*
 uwi yó- aa a- isi pano
 9/10.civet.cat 1Cd- that 1SM- come.PFV 16.here

ba- mu- bolige bandu
 2SM- 1OM- kill.PFV 2.people

‘The civet cat that came here was killed by people.’ (HK-E)

291. *Mana ayókike íimba wénga upala ulómbólisea yóóte agó ugapaala.*
 mana a- yok -ike imba wénga u- pala ulombolise-a
 after 1SM- turn.into -PFV 9/10.lion you 2sSM- want bewail -FV

i- ote ago u- ga- pal -a
 6Cd- all 6.that(ref) 2sSM- 6OM- want -FV

‘When he has turned into a lion you can bewail all what you want.’ (TO-S)

In relative constructions referring to time, the class 3 demonstrative *waa* is used (although this might also be class 14 as they have identical forms). Such constructions are also formed with the proximal demonstrative, as in 293.

292. *waa wáabi wa mwalímu, uyiganage búli?*

u- aa u- a- bii u- a mwalimu u- yigan -age buli
 3Cd-that 2sSM-PST-be.PFV 1Cd-of 1.teacher(Sw) 2sSM-teach -PST.IPFV how
 ‘When you were a teacher, how did you teach?’ AK-E

293. *nilímage ηηonda wáángu ugu aisi*

ni- lm -age ηηonda u- angu ugu a- is -i
 1sSM-cultivate-PST.IPFV 3.field 3Cd- 1sPOSS 3.this 1SM-come -PFV
 ‘I was cultivating my farm when he arrived.’ (PK-E)

Proximal demonstrative Cd-no

This proximal demonstrative is formed with the concord, followed by the stem *no*. The semantic difference between the two proximal demonstratives, if any, is unclear. One speaker, in elicitation, claimed that the proximal demonstrative with the form V-Cd is used when simply pointing out an object, for example, and Cd-*no* when pointing out one of several objects, when there is a choice of more than one.

294. *mundu yóno nnáásu*

mundu yu- no mu- laaso
 1.person 1Cd- this 1NCP- long
 ‘This person is tall.’ (PK-E)

295. *ηηobiko góno waálibika*

ηηobiko gu- no u- a- alibik -a
 3.cover 3Cd- this 3SM- FUT- break(Sw)-FV
 ‘This cover will break.’ (AK-E)

There are no examples in my data of anaphorical or relative use of this demonstrative.

Proximal demonstrative V-Cd

The second proximal demonstrative in Table 39 is often used exophorically in the data. It is formed in the following way: the concord, when this has the CV form, is preceded by a vowel of the same quality as in the concord itself. In noun class 11, for example, the concord *lu-* forms the demonstrative *u-lu*.

296. *lutela ólo luláásu*

luteela olu lu- laasu
 11.tree 11.this 11NCP- long
 ‘this twig (of tree) is long’ (PK-E)

In the case of concords with the form V, this V is doubled and a glide is inserted between the two vowels. In noun classes 4, 8 and 9/10 for example, the demonstrative is *I-y-I*.

297. *mitela íyi miláásu*

miteela iyi mi- laasu
 4.tree 4.this 4NCP- long
 ‘These trees are tall.’ (PK-E)

This demonstrative can also precede the noun in the exophorical use, but this is rare.

298. *oyu mwána ammólige kindóólí*

oyu mwana a- mu- bølge kindooli
 1.this 1.child 1SM- 1OM- kill.PFV 7.squirrel
 ‘This child killed the squirrel.’ (AK-E)

The demonstrative V-Cd also occurs with anaphoric reference, before the noun, as expected with anaphorical reference (see *iyi lawa* in example 301 below).

Referential demonstrative V-Cd-o

This demonstrative, ending in *-o* has an anaphoric function in most cases. As such, it precedes the noun it modifies (if any) in most examples in my data (but see example 285 above, a recognitional use, and also example 300 below). It has the same form as the demonstrative V-Cd, but replaces the last vowel with *-o* in all noun classes.

299. *ogo ηηónda, kuna nkólongwa ywíngíne abíi*

ogo ηηonda kuna nkolongwa yu- ingine a- b- ii
 3.that(ref) 3.field there.is(Sw) 1.man 1Cd- another 1SM- be-PFV
 ‘There was another man (cultivating) in that field.’ (TO-S)

300. *atúmbwi liníki kasi íyo?*

a- tumbu -i liniki kasi iyo
 1SM- start -PFV when 9/10.work(Sw) 9/10.that(ref)
 ‘When did he start that work?’ (AK-E)

The locative demonstratives of this set can be used adnominally, and then may either precede or follow the locative noun they modify:

301. *iyi láwa, uyénde mpaka apo pandíla uyíiti.*

iyi lawa u- yend -e mpaka apo
 9/10.this 9/10.medicine 2sSM- go -SUBJ until 16.here(ref)

pa- ndíla u- mu- yit -i
 16NCP- 9/10.path 2sSM- 1OM- pour -SUBJ
 ‘This medicine, go to that road and pour it over him’ (TO-S)

Distal demonstrative Cd-aa

A very commonly used demonstrative is the distal demonstrative formed from the concord plus the stem *aa*. It is often used anaphorically and therefore precedes the noun in most cases. As such it resembles the usage of a definite article. It can follow the noun when used exophorically but this is much less common.

The following is an example of anaphorical use, adnominal and preceding the noun:

302. *Ywaa nkólongwa kaabóya mpaka ukááya*

yú- aa nkólongwa ka- a- boy -a mpaka u- kaaya
 1Cd- that 1.man DST- 1SM- return -FV until 14NCP- 9/10.home
 ‘That/The man returned home.’ (TO-S)

In this example the demonstrative is used independently with an anaphorical function:

303. *mbwáa anlómike ywáa*

mbwaa a- mu- lom -ike yu- aa
 9/10.dog 1SM- 1OM- bite -PFV 1Cd- that
 ‘The dog bit that (person).’ (HK-E)⁸⁷

The demonstrative with *aa* is rarely used exophorically. In the following example *saa* was translated with a proximal demonstrative in Swahili.

304. *saa kyúlo kitétólíka*

si- aa kiulo ki- te- tulík -a
 7Cd- that 7.water.pot 7SM- COMPL- break -FV
 ‘This pot broke.’ (HK-E)

Not surprisingly, because of its frequent use as an anaphoric demonstrative, Cd-*aa* occurs abundantly in narratives.

Distal demonstrative Cd-lyo

Another distal demonstrative is composed of the concord followed by the stem *lyo*. This demonstrative is frequently used with the locative noun classes 16 and 17: *palyo* and *kolyo* respectively, which are place deictics. I have no examples so far of this set of locative demonstratives occurring adnominally, but they occur without the noun or NP they refer to, exophorically as in the following example, or anaphorically as in example 283 above.

305. *ywaa míundu tummwéni pályo, kilombo sááke Ása*

yu- aa mundu tu- mu- bweni palyo kilombo
 1Cd-that 1.person 1pSM- 1OM- see.PFV 16.there 7.lover

si- ake Ása
 7Cd- 3sPOSS Aisha

‘The man we just met there is Aisha's boyfriend.’ (HK-E)

The relative use of the distal demonstrative Cd-*aa* is also exemplified in the above example (*ywaa mundu*).

⁸⁷ As we have seen in section 3.3, the morpho-phonological processes which derive NC and NN sequences sometimes fail to apply in their entirety; the expected verb form here is *annómike*.

6.7 Numerals

Numerals 1-5 and 8, the forms of which can be traced back to Proto-Bantu, agree with the noun class of the head noun. Other numerals are independent nominals, borrowed from Swahili, in turn borrowed from Arabic.

306. *abii ni mabeleko mabii*

a- bii ni mabeleko ma- bii
 1SM- be.PFV with 6.offspring 6NCP- two
 ‘she has two children’ (offsprings) (HK-E)

Table 40 The numerals in Ndengeleko

1	<i>-mo</i>
2	<i>-bii</i>
3	<i>-tatu</i>
4	<i>-ne</i>
5	<i>-tano</i>
6	<i>sita</i>
7	<i>saba</i>
8	<i>-nane</i>
9	<i>tisa</i>
10	<i>komi</i>
11	<i>komi na imo</i>
12	<i>komi na ibuli</i>
100	<i>mia imo</i>
1000	<i>elfu yimo</i>

In the following table, the concords used with the numerals are shown, together with an example from each noun class.

Table 41 The numeral concords

cl.	Cd	Ndengeleko	English	
1	<i>yu-</i>	<i>mundu yimo</i>	‘one person’	PK
2	<i>(b)a-</i>	<i>bandu abii</i>	‘two persons’	PK
3	<i>(g)u-</i>	<i>mwaambo gimo</i>	‘one song’	AK
4	<i>i-</i>	<i>mikongo ibuli</i>	‘two trees’	PK
5	<i>li-</i>	<i>ligeenge limo</i>	‘one pumpkin’	AK
6	<i>ma-/ga-</i>	<i>mageenge gabuli</i>	‘two pumpkins’	AK
7	<i>si-</i>	<i>kilibe simo</i>	‘one thing’	PK
8	<i>i-</i>	<i>ilibe ibuli</i>	‘two things’	PK
		<i>saa yimo</i>	‘one hour’	HK
9	<i>(y)i-</i>	<i>bandu elfu yimo</i>	‘one thousand persons’	PK
		<i>bandu mia imo</i>	‘one hundred persons’	PK
		<i>bandu mia ibuli</i>	‘two hundred persons’	PK

10	<i>i-</i>	<i>ngoonzi íbílí</i>	‘two fingers’	PK
11	<i>lu-</i>	<i>lukonzi lúmo</i>	‘one finger’	PK
12	<i>ka-</i>	<i>kana kámo</i>	‘one small child’	PK
14	<i>(g)u-</i>	<i>ubíjā gúmo</i>	‘one sickness’	AK
15	<i>ku-</i>	-		
16	<i>pa-</i>	<i>pabíílí</i>	‘two places’	AK
17	<i>ku-</i>	-		
18	<i>mu-</i>	-		

The following examples illustrate the use of a numeral with the locative class. For classes 15, 17 and 18, no examples could be elicited, as they did not make sense to the language consultant (AK).

307. *ngonzike pabíílí*

ni- gonz -ike pa- bílí
 1sSM- sleep -PFV 16NCP- two
 ‘I slept in two places (during one night).’ (AK-E)

308. *natami pabíílí*

ni- a- tam -i pa- bílí
 1sSM- PST- sit -PFV 16NCP- two
 ‘I sat in two places, here and there.’ (AK-E)

6.8 Quantifiers

In many Bantu languages there is a separate, small category of inflected adnominals, usually called quantifiers or quantificational modifiers, because of their semantic content. In Ndengeleko, the quantifiers are the following:

Table 42 Quantifiers in Ndengeleko

Quantifier	Translation	Example	Translation
<i>-ingí</i>	‘another’	<i>kíikúpulu síngí</i>	‘another elbow’
<i>-ote</i>	‘all’	<i>lisoba lóote</i>	‘the whole day’
<i>-ingi</i>	‘many’	<i>mikólo míngi</i>	‘many hens’

The quantifiers *-ingí* and *-ote* make use of the concord.

309. *mwaalo wíngi*

mualo u- ingi
3.reason 3Cd- another
'another reason' (AK-E)

310. *myaalo yíngi*

mialo i- ingi
4.reasons 4Cd- another
'other reasons' (AK-E)

311. *tupala uyénda boóte ni yweémbe*

tu- pala uyenda ba- ote ni yweembe
1pSM- want to.go 2Cd- all and s/he
'We will go together (all) with her.' (HK-E)

312. *apétike malóombe liṣba lóote*

a- pet -ike malombe liṣba li- ote
1SM- cut -PFV 6.maize 5.day 5Cd- all
'She has cut maize all day long.' (HK-E)

The quantifier stem *-ingi* 'many' takes the NCP as agreement marker.⁸⁸

313. *báandu bíngi*

bandu ba- ingi
2.people 2NCP- many
'many people' (AK-E)

314. *miláka míngi*

milaka mi- ingi
4.angers 4NCP- many
'a lot of angers, repeated anger'

There is no quantifier 'few' in Ndengeleko. This is rather expressed by the adjective 'small/few' (see section 6.3 on adjectives).

6.9 *-ene*

A frequently used element in Ndengeleko is *-ene*, roughly translated as '(it)self' and involving a certain degree of emphasis. It uses the same concord as the

⁸⁸ Language consultant AK claims that the use of *-ingi* is influenced by Swahili and that the construction with associative *-a nyansima*, cf. example 264, is 'more proper Ndengeleko'.

possessive, which means class 1 takes *u-* and not *yu-*, as for other categories like quantifiers. The use of the element *-ene* is extensive and worthy of further study. Firstly, *-ene* occurs as an adnominal. As such it is always post-nominal.

Table 43 *-ene* in all classes

Noun class	Ndengeleko	English	<i>-ene</i>
1	<i>nkolongwa wéene</i>	‘the man (himself)’	<i>u-ene</i>
2	<i>akolongwa béene</i>	‘the men (themselves)’	<i>ba-ene</i>
3	<i>ntope wéene</i>	‘the stick (itself)’	<i>u-ene</i>
4	<i>mitope yéene</i>	‘the sticks (themselves)’	<i>i-ene</i>
5	<i>lipamba lyéene</i>	‘the shoulder (itself)’	<i>li-ene</i>
6	<i>makolo géene</i>	‘the clans (themselves)’	<i>ga-ene</i>
7	<i>kiganza séene</i>	‘the palm of the hand (itself)’	<i>si-ene</i>
8	<i>iikujulu yéene</i>	‘the elbows (themselves)’	<i>i-ene</i>
9	<i>ngwapa yéene</i>	‘the armpit (itself)’	<i>i-ene</i>
11	<i>lukolo lwéene</i>	‘the clan (itself)’	<i>lu-ene</i>
12	<i>kakakasi kéene</i>	‘the small container (itself)’	<i>ka-ene</i>
14	<i>ukando wéene</i>	‘the soil (itself)’	<i>u-ene</i>
15	<i>kutyanga kwéene</i>	‘the walking (itself)’	<i>ku-ene</i>
16	<i>pandu péene</i>	‘the place (itself)’	<i>pa-ene</i>
17	<i>kupongoti kwéene</i>	‘at the forest (itself)’	<i>ku-ene</i>
18	<i>mpongoti mwéene</i>	‘in the forest (itself)’	<i>mu-ene</i>

In this construction, *-ene* cannot be used without the noun it refers to, as in **wene ubii yika* ‘it is on its own’, referring to *ntópe* ‘stick’ (cl.3). It is possible to say *kibii yika* ‘it is on its own’, referring to for example *kigóombo* /ki-gombo/ ‘tool’ (cl.7), but not **kene kibii yika*. *-ene* can also not be used as a pronoun to replace an object, as in ‘give IT to me’. The phrase *nimáni kuyógeelya* ‘I can swim’, can not be paraphrased into **nimáni kwene*. In these cases, a demonstrative has to be used.

A few examples illustrate the use of *-ene*. According to speakers, the meaning is the same in all these examples if you leave out *-ene*. I propose that the element contributes a certain degree of emphasis:

315. *mbwigá wéene mwii*

mbwiga u- ene mwii
 1a.friend 1Cd- self 1.thief
 ‘The friend himself is a thief.’ (AK-E)

316. *langi yééne itébooka*

langi i- ene i- te- book -a
9/10.colour(Sw) 9/10Cd- self 9/10SM- COMPL- go -FV
'The colour is gone.' (HK-E)

317. *Habibu wéene*

Habibu u- ene
Habibu 1Cd- self
'Habibu himself' (AK-E)

A similar construction can be used preceding the noun or independently, to mean 'oneself' (himself, yourself etc). This is only used with persons. Contrary to the other construction with *-ene*, this element, if used as an adnominal, has to precede the noun. Moreover, the form is different for the first person and is not *wene*, but *mwene*.

318. *mwene Salimá aatéleka*

mu- ene Salima a- a- telek -a
1NCP- self Salima 1SM- FUT- cook -FV
'Salima herself will cook.' (AK-E)

319. *mwene nkólóngwa*

mu- ene nkolongwa
1NCP-self 1.man
'the man (himself)' (AK-E)

320. *iyó lélo utanga wée wa mwéene.*

iyó leelo u- tang -a wee w- a mu- ene
9/10.that(ref) now 2sSM- know -FV you 1Cd- of 1NCP- self
'It's up to you.' (TO-S)

321. *nitanga na mwéene*

'I know myself'

utanga wa mwéene

'you know yourself'

atanga mwéene

's/he knows her/himself'

tutanga twa béene

'we know ourselves'

m(u)tanga mwa béene

'you (pl.) know yourselves'

batanga béene

'they know themselves'

6.10 Inflected interrogatives

There are two inflected interrogatives in the data, *-ako* ‘which’ and *-linga*, ‘how many’. The question word *-ako* uses the concord, as with the quantifiers.

Table 44 - *ako* in all classes

Noun class	-ako	Ndengeleko	English
1	<i>yu-ako</i>	<i>ywáako</i>	‘which one (person)?’
2	<i>ba-ako</i>	<i>agéni báako</i>	‘which guests?’
3	<i>u-ako</i>	<i>nkóngo wáako</i>	‘which tree?’
4	<i>i-ako</i>	<i>mikóngo yáako</i>	‘which trees?’
5	<i>li-ako</i>	<i>lyáambi lyáako</i>	‘which mat?’
6	<i>ga-ako</i>	<i>máambi gáako</i>	‘which mats?’
7	<i>si-ako</i>	<i>kíingano sáako</i>	‘which heel?’
8	<i>i-ako</i>	<i>iíngano yáako</i>	‘which heels?’
9	<i>i-ako</i>	<i>mbúgúsu yáako</i>	‘which small firewood?’
11	<i>lu-ako</i>	<i>lukálángo lwáako</i>	‘which sidedish?’
12	<i>ka-ako</i>	<i>káinza káako</i>	‘which little girl?’
14	<i>u-ako</i>	<i>bwábi wáako</i>	‘which witchcraft?’
15	<i>ku-ako</i>	<i>kwiina kwáako</i>	‘which dancing?’
16	<i>pa-ako</i>	<i>panani páako</i>	‘which on top?’
17	<i>ku-ako</i>	<i>kwáako</i>	‘which place’
18	<i>mu-ako</i>	<i>munáni mwáako</i>	‘which on top?’

The form *ku-ako* ‘which place’ is the regularly used question-word meaning ‘where?’ (i.e. ‘which place’).

322. *uuma kwaáko?*

u- um -a kwako
 2sSM- come.from -FV where
 ‘where do you come from?’ (HK-E)

This word has developed into a negation marker in Ndengeleko, see 11.1.1.

The interrogative *-linga*, ‘how many’, takes the same concord as the numerals. This is common in a Bantu comparative perspective and was also the case in Proto-Bantu (Meeussen 1967:96). Example (323) shows that *-linga* follows the pattern of the numerals rather than taking the NCP in all classes as with the adjectives (which would have given *mitope milinga*).

323. *ibíi mitope ilínga?*

i- bii mitope i- lɪnga
4SM- be.PFV 4.sticks (of axe) 4Cd- how.many
'how many sticks (of axe) are there?' (HK-E)

324. *gabii mabago malínga?*

ga- bii mabago ma- lɪnga
6SM- be.PFV 6.axes 6NCP- how.many
'how many axes are there?' (HK-E)

325. *una bána alínga?*

una baana a- lɪnga
you.have(Sw) 2.children 2Cd- how many
'How many children do you have?' (TN-E)

326. *mikákási ilínga*

mikakasi i- lɪnga
4.mugs 4Cd- how many
'how many mugs?' (AK-E)

6.11 *Summary*

In this chapter, different constituents which modify nouns – the so-called adnominals – have been presented. These divide into adjectives, which agree with the head noun by means of the Noun Class Prefix, and other adnominals, which agree with the head noun by means of a Concord. These include the associative construction, possessives, demonstratives, numerals and quantifiers. The concord shows some differences depending on the category of the adnominal.

Adjectives are few in Ndengeleko, and mainly from the semantic types 'dimension' and 'physical property'. There are three adjectives for colour: black, white and red.

All adnominals follow the noun they modify, although the demonstrative can also precede the noun.

There are five different demonstrative stems in Ndengeleko; two proximal, two distal, and one which refers back to information previously mentioned.

7. *Patterns of agreement*

In general in Ndengeleko, as in other Bantu languages, agreement in a phrase is governed by the noun class of the controller noun, see also section 6.2. However, semantic considerations, specifically related to animacy, also play a role in the choice of agreement in Ndengeleko.

In this chapter, the concepts of grammatical agreement and animacy agreement are introduced in 7.1. Thereafter, the specifics of agreement involving nouns with human referents are discussed in 7.2, and nouns with animal referents in 7.3. A discussion of the distinction between the two forms of agreement is presented in 7.4. In 7.5, other aspects than animacy, of importance for agreement, are presented.

7.1 *Introduction*

In a noun class language like Ndengeleko, the noun class manifests itself by the use of a noun class prefix, and by the use of *Class Concord* (CC).⁸⁹ Each noun class triggers a set of concord markers on agreement targets.

327. *di-bwa di-swanu di-ku-dia*
5-dog 5-good 5-pres-eat.FV
'The good dog eats.'
(Kagulu, Petzell 2008:48)

In the above example from Kagulu, the head noun *dibwa* 'dog' is a noun of class 5. Therefore, agreement on the adjective and verb is of class 5, as expected. *Animate Concord* (AC), on the other hand, refers to the use of concords of noun classes 1 (singular) and 2 (plural) for nouns with animate referents, even when these nouns inherently belong to another noun class. This can be viewed as a secondary, semantically based nominal classification, cutting across and taking precedence over the first nominal classification based on noun classes (Schadeberg 2001).

In Ndengeleko and other languages with AC, the semantics of the noun plays a more important role than the noun class membership when the head noun refers to a human being or an animal, as in the following example. The head noun,

⁸⁹ I use the terminology AC (animate concord) and CC (class concord) following Wald (1975).

of class 7 with a prefix *ki-*, refers to an animal. Therefore, the subject agreement marker on the verb is of class 1:

328. *kipombogo ayingii muyimbwa*

kipombogo a- yingi-i mu- limbwa
7.crocodile 1SM- enter-PFV 18NCP- 5.hole
'The crocodile (has) entered into the hole.' (AK-E)

AC occurs in several Bantu languages, mainly along the east coast of central Africa (Wald 1975:296). The languages closest to the coast exhibit the highest percentage of AC, while in areas further inland the percentage is much lower or non-existent.

Apart from being of areal character, AC manifests itself in different ways in the languages concerned. Very few languages make use of it throughout, AC for all animate nouns in all contexts requiring concord. In Matuumbi, for example, animate nouns in class 9 (which can have singular or plural reference) use the concord of class 1 in the singular, but the concord of class 9 when plural (Odden 1996:31).

Swahili, the most well-known language which exhibits AC, uses concords of classes 1 and 2 with all animate nouns, unless these are human relationship terms in attributive possessive constructions (Contini-Morava 2008). For each Bantu language that uses AC, there appears to be a specific set of rules for its application. Wald (1975) made a significant contribution in describing this phenomenon for the so-called North East Coastal Bantu languages (NECB).

For the languages spoken in the coastal area to the south of Dar es Salaam, we know little about the specific rules of CC/AC concord. See Ström (2011) for a brief overview. Maho (1999:124) labels the phenomenon General Animate Concord (GAC), and includes Matuumbi in his study (as well as languages in completely different geographical areas such as Angola). He also notes (Maho 1999:123), that the attested distribution is most probably an underestimation, as many grammars make no mention of the use of animate concord, possibly because it has been considered too colloquial or 'irregular' for mention.

7.2 *Agreement with human referents*

In this section we will have a closer look at the agreement behaviour of nouns with human referents. Apart from classes 1/2 and 1a, we find such nouns in classes 5/4, 7/8, 9/10 and 12(/8). For more on these noun classes, see 5.4.

Nouns in classes 1/2

As seen in section 5.4, class 1 singular, paired with class 2 plural, exclusively contains nouns with human referents. The nouns with human referents all take concords of classes 1 and 2, as expected:

329. *mwana wá ñhèni agóonsike*

mwana u- a ñhèni a- gonz -ike
1.child 1Cd- of 1.visitor 1SM- lie.down -PFV
'The child of the visitor is sleeping (has fallen asleep).' (PK-E)

Nouns in class 1a

The nouns in class 1a, mainly kinship terms, take their agreement in class 1/2. The singular nouns 'mother' and 'father' take the concords of noun class 2, which is honorific agreement.

330. *tatɪ bááke*

taatɪ ba- ake
1a.father 2Cd- 3sPOSS
'his/her father' (SS-E)

If there is a plural in class 6, agreement is with class 2 (for the speakers who accept such plurals).

331. *matatɪ báángɔ*

mataatɪ ba- angɔ
6.fathers 2Cd- 1sPOSS
'my fathers' (SS-E)

Human referents in other classes

Apart from derived diminutive and augmentative nouns, human referents can be found in class 7 (332) and 9/10 (333), although these are few. As we have seen in section 5.4, nouns with human referents in these classes mainly refer to persons with a handicap, or unfavourable characteristics, such as *ngángali* 'stubborn person' (cl.9/10). It also includes the noun for 'lover' (in class 7) and the noun for 'friend' (in class 9/10). These all take class 1/2 agreement.

332. *kiwéte nnáásó*

kiwete mu- laasó
 7.lame.person 1NCP- long
 ‘tall lame person’ (AK-E)

333. *mbógusó awi pááí*

mbógusó a- w -ii paai
 9/10.deaf.person 1SM- fall-PFV down
 ‘the deaf person fell down’ (AK-E)

Certain of these nouns with human referents can be used in the plural. Class 7 nouns in that case take a plural in class 8, and sometimes an alternative plural in 6. Some class 9/10 nouns, which have singular as well as plural reference, can take an alternative plural in class 6. For all these nouns with human referents, singular as well as plural, AC is compulsory:

334. *mabwigá béene*

mabwiga ba- ene
 6.friends 2Cd- self
 ‘the friends (themselves)’ (SM-E)

Derived nouns

When noun stems with human referents are used in class 5 for an augmentative meaning, or class 12 for a diminutive meaning, agreement is of the class to which this derived noun belongs (CC), and forms the only case in which agreement of humans is not with classes 1 and 2. The following is an example with the noun stem *-ana*, as in *mwáána* /mu-ana/ ‘child’ (cl.1), with the augmentative meaning in noun class 5 ‘big child’:

335. *lyana lyááke likólo*

liana li- ake li- kolo
 5.child(aug) 5Cd- 3sPOSS 5NCP- big
 ‘her big child’ (PK-E)

The same noun stem seen in (335), *-ana*, can be used in noun class 12 for a diminutive meaning:

336. *kaána ka ηjéni kandólila*

kaana ka- a ηjeni ka- ando- lil -a
12.small.child 12Cd- of 1.visitor 12SM- PRES.DJ- cry -FV
'The small child of the visitor is crying.' (PK-E)

In sum, all nouns with human referents in classes 1/2, in class 1a, and in classes 7/8 and 9/10 induce class 1/2 agreement. Derived nouns with human referents in classes 5/4 and 12(/8) with augmentative or diminutive semantics, on the other hand, induce grammatical agreement.

7.3 *Agreement with animal referents*

Nouns with animal referents differ from nouns with human referents in their agreement behaviour. There are no nouns with animal referents in classes 1/2. Rather, they occur in classes 3/4, 5/6, 7/8, 9, 11, 12 and 14. In whichever class these nouns are, they typically make use of Animate Concord. There are some exceptions to this, however.

Underived nouns

AC is illustrated in (337) for class 3, with a subject marker of class 1.

337. *nkwánda aimba lyíimbwa*

nkwanda a- imb -a limbwa
3.aardvark 1SM- dig -FV 5.hole
'The aardvark digs a hole.' (AK-E)

There are quite a number of animals in class 7, with a plural in class 8. Animate concord is again the rule, as can be seen with the quantifier in a noun phrase (338), a demonstrative in (339), and a nominal object in class 7 with an object agreement marker of class 1 (IOM) on the verb (340):

338. *kikóko ywíngɪ*

kikoko yu- ingɪ
7.rat 1Cd- another
'another rat' (AK-E)

339. *ikoko ába*

ikoko aba
8.rats 2.these
'these rats' (HK-E)

340. *uyu mwána ammólige kindóólí*

uyu mwana a- mu- bolige kindóólí
1.this 1.child 1SM- 1OM- kill.PFV 7.squirrel
'This child killed the squirrel.' (AK-E)

Class 9/10 contains more nouns with animal referents than all the other classes taken together. Here too, AC is the rule, as we can see with the object marker in (341).

341. *ammólige jóka*

a- mu- bolige jóka
1SM- 1OM- kill.PFV 9/10.snake
'He has killed the snake.' (AK-E)

Among other languages with AC, there are syntactic constraints on the use of AC. For example, AC is said to be more favoured when it is not in the same noun phrase as the controlling noun (Wald 1975:299). When there is a concordial element before and outside of the NP of the controlling noun, AC is favoured e.g. in Swahili *hawa ni ng'ombe wangu* 'these are my cows' (Wald 1975). This is also the case in Ndengeleko:

342. *ába ñombe báángo*

aba ñombe ba- angó
2Cd.these 9/10.cows 2Cd- 1SPOSS
'These are my cows.' (AK-E)

Other languages favour CC inside the NP, e.g. Kami *ng'ombe dzangu nhulu/wakulu* 'my big cows' (Wald 1975). In Ndengeleko, AC is used both inside the NP (*ñombe biingi*) and outside (object prefix in *baabweni*).

343. *baabwéni ng'ombe bíingi*

ba- a- bweni ng'ombe ba- ingi
2SM- 2OM- see.PFV 9/10.cattle 2Cd- many
'They saw a lot of cows.' (AK-E)

344. *mbusi yúmo abii kólyo wáangó*

mbusi yu- mo a- b -ii kó- lyo u- angó
9/10.goat 1Cd- one 1SM- be -PFV 17Cd- that 1Cd- 1sPOSS
'The one goat which is yonder is mine.' (PK-E)

AC does not occur throughout with underived animate nouns, however. For plurals in noun class 6,⁹⁰ AC is used in some examples and CC in others. In 345, object agreement on the verb is AC, but agreement on the demonstrative, within the NP, is CC:

345. *nyaabólige gaa makóle*

ni- a- bólige ga- aa makóle
1sSM- 2OM- kill.PFV 6Cd- that 6.rats
'I have killed those rats.' (HK-E)

In the following example, the subject agreement on the verb is CC.

346. *makóle gabutoki pakíinza*

makóle ga- butok -i pa- kinza
6.rats 6SM- run -PFV 16NCP- 7.kitchen
'The rats ran into the kitchen.' (HK-E)

When trying to find out exactly which rules are at play in this variation, I found that CC and AC are in free variation (347-348).⁹¹

347. *abólage makóle ába*

a- bólage -e makóle ába
2OM- kill -SUBJ 6.rats 2.these
'Kill these rats!' (AK-E)

⁹⁰ This is the regular plural of class 5, but as we have seen in 5.5, class 6 pairs with almost any class as an alternative plural. Animals in noun class 9/10 normally do not have a separate plural form.

⁹¹ It should be mentioned that sentence (347) represents the spontaneous translation of the speaker, while sentence (348) was produced when asked if agreement with class 6 was possible. The judgement of the speaker in retrospect is that (348) is the correct Ndengeleko sentence, but that (347) is also possible. Together with the fact that AC is more frequent in the data, this may be an indication that the use of AC is increasing.

348. *gabólage makole ága*

ga- bolag -e makole ága
6OM- kill -SUBJ 6.rats 6.these
'Kill these rats!' (AK-E)

Mass nouns in class 14 with animate referents also take CC in certain cases. One might think that this is when they are considered too small to be animates. Equally small animals and insects in other classes are treated as animates however, as with the class 9/10 noun 'grasshopper(s)' (350).

349. *udúfi uuma lwii kwikwiluli*

ulufi u- um -a lwii ku- Ikwiluli
14.shrimps 14SM- come.from -FV 11.river 17NCP- Ikwiriri
'The shrimps come from the river at Ikwiriri.' (HK-E)

350. *ngóongo báisi kumigónda lino*

ngongo ba- is -i ku- migunda lino
9/10.grasshopper 2SM- come-PFV 17NCP- 4.field today
'Grasshoppers came to the field today.' (HK-E)

In fact, the speaker accepts, but disprefers, class 2 agreement for 'shrimps' in (352). However, the noun for 'prawns' in class 9/10 always take class 2 agreement (353).

351. *ulúfi nkólo nkólo*⁹²

ulufi nkolo nkolo
14.shrimps 14NCP.big 14NCP.big
'big shrimps' (AK-E)

352. ? *ulúfi akólo akólo*

ulufi akolo akolo
14.shrimps 2 NCP.big 2 NCP.big
'big shrimps' (AK-E)

353. *ngáamba akólo akólo*

ngamba akolo akolo
14.prawns 2 NCP.big 2NCP.big
'big prawns' (AK-E)

⁹² As mentioned in section 6.3.2, adjectives can be doubled when a noun has plural reference.

This points to a conclusion that agreement depends on which class is used, rather than semantic distinctions as small/big or perhaps food/non-food.

Class 14 can take CC or AC, but a class 9/10 noun always induces AC. Class 6 can also take CC or AC. As evidenced by the following example, CC is not used because the referent is small or otherwise non-animate:

354. *makénya gandóyuguya*

makenya ga- ando- yuguy -a
6.sand.fleas 6SM- PRES.DJ- itch -FV
'The sand fleas are itching.' (HK-E)

CC as well as AC is also possible in class 4:

355. *mikólo míngi*

mikolo mi- ingi
4.hens 4NCP- many
'many hens' (AK-E)

356. *mikólo bíngi*

mikolo ba- ingi
4.hens 2NCP- many
'many hens' (AK-E)

Derived nouns

As we have seen, derived diminutive and augmentative nouns with human referents induce CC. This is the same with animal referents, without exceptions. The noun for 'hare' in Ndengeleko is *mbésa* /N-pesa/ (cl.9/10); 'small hare' is *ka-pésa*.⁹³

357. *kapésa kaiú*

kapesa ka- uu
12.hare 12NCP- white
'white little hare' (AK-E)

Wald (1975) points out for Swahili that AC comes into effect when the noun class of the controlling noun is felt to be arbitrary, rather than semantically motivated. In the case of diminutives and augmentatives, there is a strong semantic motivation

⁹³ The noun stem is *-pesa*. Preceded by the homorganic nasal prefix of noun class 9/10 (N-), the voiceless consonant becomes voiced (see section 3.3.2).

for noun class assignment, therefore CC applies. When there is no transparent semantic motivation for noun class assignment, the semantic content of the noun itself (not the possible diminutive meaning of the class) is the basis for agreement, and because these nouns are animates, they take the agreement of noun classes 1 and 2 (Wald 1975:273).

This strong semantic motivation also holds when the diminutiveness (in this case) is borrowed from another language: class 7 is sometimes used for diminutives in Ndengeleko, which is analysed here as Swahili influence. Class 7 is the regular class for diminutives in Swahili. Next to a regular diminutive *kapúsi* ‘small goat’ in class 12, we also find a derived noun *kipúsi* (cl.7)⁹⁴ in the data. This noun takes agreement of the class it has been derived in, 7 in this case: *kipusi isi kinógike* ‘this small goat is beautiful’. This is the case even though other animate nouns in class 7 must show AC; see for instance *kindóóli* ‘squirrel’ (340) and *kikóko* ‘rat’ (338). Such nouns have not been moved to class 7 for semantic reasons, and are not necessarily small, as evidenced by the noun for ‘very large crocodile’ *kipómbóvu*, which is also in noun class 7.

7.4 *The CC/AC distinction*

For Ndengeleko, we can now conclude that there is a hierarchy of environments where animacy agreement can be expected, from CC only on the left to AC only on the right.

Figure 15 CC > AC

aug/dim	>	animals in	>	animals in	>	humans
		4, 6 & 14		other classes		

Hence, when variation between AC and CC is an option, there is a humanness hierarchy: nouns with human referents take AC to a greater extent than nouns with animal referents. For human nouns there are no other exceptions than the derived nouns with augmentative or diminutive meanings.

⁹⁴ The derived sense of class 7 is borrowed from Swahili, not the noun itself.

7.5 *Other agreement considerations*

Noun class 1 only contains nouns with human referents. As we have seen, most nouns with animate referents trigger agreement in class 1, although they belong to other classes. Apart from this, the noun *úla* ‘rain’ takes agreement in noun class 1. The noun itself belongs to noun class 9/10 and does not have a prefix.⁹⁵ I do not know of any other Bantu language using animacy agreement for ‘rain’.

358. *ulá aní líno*

ula a- nii líno
9/10.rain 1SM- rain.PFV today
‘It rained today.’⁹⁶ (HK-E)

One speaker (SM) uses class 9/10 agreement for this noun. In all other examples with different speakers, agreement is in class 1.

359. *ukaa sínu aiké?*

ukaa si- mu a- iike
14.homeplace 7Cd- 2pPOSS 1SM- arrive.PFV
‘Did it arrive at your place (the rain)?’ (HK-E)

360. *úla abóvi*

ula a- búvi
9/10.rain 1SM- return.PFV
‘The rains have returned.’ (AK-E)

361. *úla mwíngi*

ula mu- ingi
9/10.rain 1NCP- many
‘a lot of rain’ (AK-E)

A mass noun or other noun without a singular/plural distinction can show agreement with noun class 5 or 11 with the numeral ‘one’ to show singularity.

⁹⁵ For Proto-Bantu, the noun has been reconstructed as **búdà*. The initial consonant *b* has been lost in Ndengeleko due to spirantisation and consonant loss (see 3.4).

⁹⁶ Literally: ‘s/he rained today’.

362. *nipala uliia udufi limo*

ni- pal -a uliia ulufi li- mo
 1sSM- want -FV to.eat 14.shrimps 5Cd- one
 ‘I will eat one shrimp.’ (HK-E)

363. *mwaa limo*

mwaa lu- mo
 3.leaf 11Cd- one
 ‘one leaf’ (HK-E)

Lastly, a note on the agreement with locative nouns in noun classes 16-18: adnominals do not show agreement with the locative class, but with the noun class of the noun to which the locative prefix is added. This is common across Bantu (see e.g. Setswana (Demuth and Mmusi 1997)).

364. *apandike biinda kunjonda wááke.*

a- pand -ike binda ku- njonda u- ake
 1SM- plant -PFV 6.okra 17NCP- 3.field 3Cd- 3sPOSS
 ‘S/he planted okra in his/her field/garden.’ (HK-E)

365. *tutáma kunníma wíito*

tu- tam -a ku- nnima w- ito
 1pSM- sit -FV 17NCP- 3.land 3Cd- 1p.POSS
 ‘We live in our country.’ (HK-E)

366. *ndimíni atama múlyímbwa líno*

ndimíni a- tam -a mu- limbwa li- no
 9/10.warthog 1SM- sit -FV 18NCP- 5.hole 5Cd- this
 ‘There’s a warthog in this hole.’ (AK-E)

Agreement with the locative class is rejected:

367. *mumpuko wááke*

mu- mpuko u- ake
 18NCP- 3.bag 3Cd- 3sPOSS
 ‘in his pocket’ (AK-E)

368. **mumpuko mwaake*

mu- mpuko mu- ake
 18NCP- 3.bag 18Cd- 3sPOSS
 ‘in his pocket’ (AK-E)

As in many other Bantu languages, the locative can be the preposed subject of the phrase, and the logical subject is postposed. This is commonly referred to as *locative inversion* (Bresnan and Kanerva 1989; Demuth and Mmusi 1997).

369. *pigóongo patama agói angé júumba*

pa- igongo pa- tam -a agoi a- nge jumba
 16NCP- 8.shore 16SM- sit -FV 2.old.people2Cd- without 9/10.house
 ‘At the shore sit old men without houses/who don't have a house.’ (AK-E)

370. *pandu páno paawi íimba*

pandu pano pa- a- w -ii imba
 16.place 16.here 16SM- PST- die -PFV 9/10.lion
 ‘A lion died at this place.’ (AK-E)

371. *kupóngótı kubólaga báandu*

ku- pungotı ku- bulag -a bandu
 17SM- 9/10.bush 17SM- kill -FV 2.people
 ‘People are killed in the forest.’ (AK-E)

7.6 Summary

This chapter has shown the distinction between grammatical agreement according to the noun class of the head noun (CC), and semantic agreement in classes 1/2 for most nouns with animate referents, called animacy agreement (AC). CC for nouns with animate referents is only regular for derived nouns: diminutives in class 12 and augmentatives in class 5. Nouns with human referents in other classes must induce AC. For nouns with animal referents in other classes there is variation between AC and CC in the plural classes 4 and 6, as well as in class 14.

Furthermore, we have seen that the noun *úla* ‘rain’ shows agreement in class 1. For mass nouns, singularity can sometimes be expressed by using agreement in class 5 or 11.

As for locative nouns in classes 16-18, adnominals do not show agreement with the locative class, but with the noun class of the noun to which the locative prefix is added. On the other hand, locatives can be the preposed subject of the phrase. This is called locative inversion.

Part IV: Morphology in the verb phrase

As pointed out by Nurse (2008:21), the agglutinating Bantu languages are ‘verby’; they express by verbal derivation and inflection what other languages may express lexically or syntactically. The following chapters deal with morphology in the verb phrase. Below in this introduction, the structure of the verbal form is described as a background to the terminology used in the rest of the chapters. Thereafter, derivation of verbal items by means of extensions is the subject of Chapter 8. Chapter 9 discusses inflection of subject and object. The inflectional category of tense, aspect and mood forms the bulk of this part of the thesis, in Chapter 10. This is followed by negation in Chapter 11 and copula constructions and non-verbal predication in Chapter 12.

Terminology

As background to the analysis of the Ndengeleko verb, I here introduce terminology commonly used in studies of Bantu languages, e.g. (Meeussen 1967; Schadeberg 2003a). The following figure illustrates the structure of the verb in Ndengeleko (as in other Bantu languages):

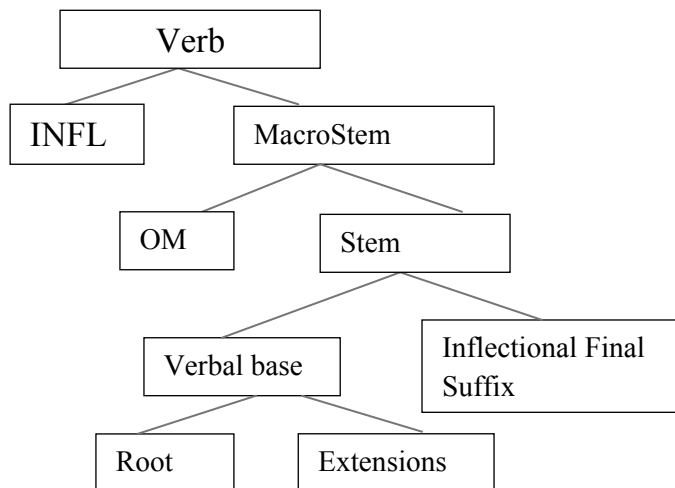


Figure 16 The structure of the verb, adapted from Downing (2001)

In this terminology, the nucleus of the verb, which cannot be further separated, is referred to as the *radical* or *root*.

372. *-tɪl-* ‘fear’

The root has the structure CVC or CVVC. This root can be extended with suffixes – *extensions* – which contribute further lexical meaning to the root, for instance causatives.

The root, with or without optional extensions, is referred to as a (verbal) *base*.

Inflection is expressed by affixing to this base, by means of an *inflectional final suffix*, resulting in a stem. Inflection also involves marking of the object (OM). The stem including the OM is referred to as the *macrostem*. Inflection of subject, as well as tense-aspect-mood (TAM), is prefixed to this macrostem, in INFL (inflectional prefixes) in Figure 16.

The linear ordering of such inflectional and derivational morphemes is comparable across Bantu languages. This morphological template is referred to as a *slot system* (Nurse 2003:90). For the analysis of Ndengeleko inflection I use the labels introduced by Meeussen (1967:108-111). Meeussen refers to the position between formative and infix as *limitative*.

In the following table, the names of the slots are given in the first row. The slots ‘Root’ and ‘Extension’ form the verbal base. Other slots are involved in inflection; the OM in the macrostem and all other prefixes in INFL (cf. Figure 1). The final slots merge together in the IFS.⁹⁷ The examples are parsed morpheme by morpheme, in order to illustrate the slot system:

⁹⁷ In the examples in this thesis, these have normally not been segmented, which means *-age* (see example 205) is glossed PST.IPFV and not segmented into *-ag-e*.

Table 45 The slots in Ndengeleko

	INFL					OM	Verbal base		IFS	
	Pre-initial	Initial, SM	Post-initial	Form-ative, TAM	Limi-tative	Infix, OM	Root	Ext-ension	Pre-final, TAM	Final
373.	<i>aatekúnnoma</i> ‘(The dog) bit him.’ (AK-E)									
		<i>a</i>	<i>a</i>	<i>te</i>	<i>ku</i>	<i>mu</i>	<i>lom</i>			<i>a</i>
		1SM	PST	COMPL	15NCP	1OM	bite			FV
374.	<i>twandakwáalekelya</i> ‘We are throwing at them.’ (AK-E)									
		<i>tu</i>		<i>anda</i>	<i>ku</i>	<i>a</i>	<i>lek</i>	<i>il-ɪ</i>		<i>a</i>
		1pSM		PRES.DJ	15NCP	2OM	throw at (applicative)			FV
375.	<i>(nimmweni múundu) kaapíta</i> ‘I saw someone passing there.’ (HK-E)									
	<i>ka</i>	<i>a</i>					<i>pít</i>			<i>a</i>
	DST	1SM					pass			FV
376.	<i>ammolagage naái?</i> ‘Whom was s/he (busy) killing?’									
		<i>a</i>				<i>mu</i>	<i>bolag</i>		<i>ag</i>	<i>e</i>
		1SM				1OM	kill		PST. IPFV	FV

The minimal form of a verb in discourse, namely the imperative, consists of a base and the IFS, which often consists of the *final vowel* (FV) only.

377. *lok -a*

cross -FV

‘Cross!’ (the road, river)

However, the most common minimal form consists of a subject marker (SM), a verbal base and a final vowel. This is the present (see section 10.6.1), in the conjoint form in (378).

378. *atéleka kiláalyo pakínza*

a- telek -a kilaalyo pa- kinza
1SM- cook -FV 7.food 16NCP- kitchen
'She is cooking food in the kitchen.' (SS-E)

In these chapters on verbal morphology, use has to some extent been made of contexts, guided by the questionnaire in Dahl (1985). An example from this questionnaire is indicated by 'Dahl' and the question number following the glossing. The full context of the example from the questionnaire is given in a footnote. In these contexts, capitals indicate that the speaker is presented with the uninflected form of the verb.

8. Verbal derivation

The aim of this chapter is to analyse the structure of the verbal base. The verbal base is the domain of derivational verbal morphology in Bantu languages (Schadeberg 2003a). Verbal derivation is introduced in 8.1. Thereafter, the extensions which are productive in Ndengeleko are presented: the applicative in 8.2, the causative in 8.3, the passive in 8.4 and the reciprocal in 8.5.

Other extensions common to Bantu languages and reconstructed for Proto-Bantu (Schadeberg 2003a) are not productive in Ndengeleko. Such extensions can be recognised in many verbal bases, for example the verbal bases which include *-ik*. Examples with *-ik* are given in 8.6. Other fossilised extensions are less transparent and are not discussed in separate sections.

8.1 Introduction

Canonical roots have the structure CV(V)C. These lexical roots can be extended with suffixes to form other lexical meanings related to the meaning of the root.

In Ndengeleko, verbs longer than CV(V)C are basically all the result of a derivational process, as in other Bantu languages (Schadeberg 2003a:72). The suffixes are commonly referred to as extensions, when analysable as to form and meaning.⁹⁸ The canonical extension has the shape -V(C). The following are examples of the morphological structure of an applicative and a passive.

Table 46 Examples of extensions

Example	Root	EXT	Final	Extended meaning	Kind of extension
<i>-yítya</i>	<i>-yit-</i> 'pour'	<i>-i</i>	<i>-a</i>	'pour onto'	Applicative
<i>-kémwa</i>	<i>-kem-</i> 'call'	<i>-o</i>	<i>-a</i>	'be called'	Passive

It is not uncommon that an extended verb no longer has an unextended counterpart.

⁹⁸ In other cases, when this is not transparent, segmentation may be purely formal and we can refer to the base as consisting of a root and an expansion (Schadeberg 2003a).

8.2 *Applicative*

Applicative verbs are transitive. The object of the applicative verb is mostly a beneficiary (example 379). It can also fulfil semantic roles such as instrument (example 380) and place⁹⁹ (example 381). The beneficiary function is the most common in Ndengeleko as well as in other Bantu languages (Schadeberg 2003a). The applicative in Ndengeleko is *-i-* or *-il-*. The short form glides to *-y-*. The PB form of the applicative was **-il-* (Schadeberg 2003a:74)¹⁰⁰. The meaning of the applicative can be specialised and lexicalised, or fully transparent.

379. *mana ápátike pwéela aampímya sawádi mwíinza*

mana a- pat -ike pwela
if 1SM- get -PFV 9/10.money

a- a- mu- pími -a sawadi mwíinza
1SM- FUT- 1OM- buy.for -FV present 1.girl

‘If he gets money he will buy a present for the girl.’ (AK-E, Dahl 104.¹⁰¹)

380. *alímya ligéembe*

a- lími -a ligembe
1SM- cultivate.with -FV 5.hoe

‘He is farming with the hoe.’ (PK-E)

381. *kwika kólyo, mpaka uyógeeli máási¹⁰²*

kuika kú- lyo mpaka u- yogeeli -i maasi
to.arrive 17Cd- that until(Sw) 2sSM- swim -SUBJ 6.water

‘When you come there, you should swim.’ (SM-E)

⁹⁹ Also time, cause and reason.

¹⁰⁰ Other names are dative, prepositional, or directive extensions.

¹⁰¹ (The boy thinks that he will perhaps get a sum of money) If the boy GET the money, he BUY a present for the girl.

¹⁰² Following the applicative *-i-*, the form of the subjunctive is *-i*, and the results is a high vowel. See section 4.5.3.

Table 47 Examples of applicatives in Ndengeleko

Applicative	Underlying form	English	Related verb	English
<i>-páya</i>	/-pa-i-a/	‘give to’	<i>-p-a</i>	‘give’
<i>-lóm̄ya</i>	/-lom-i-a/	‘get hurt’	<i>-lóm-a</i>	‘bite’
<i>-pím̄ya</i>	/-pim-i-a/	‘buy for’	<i>-pím-a</i>	‘buy’
<i>-yít̄ya</i>	/-yit-i-a/	‘pour onto’	<i>-yít-a</i>	‘pour’
<i>-yípolya</i>	/-yipol-i-a/	‘dish up’	<i>-yípwa</i> /yipu-a/	‘take (food or pot) off the fire, dish up’
<i>-píkanya</i>	/-pikan-i-a/	‘listen to’		
<i>-yóm̄lya</i> ¹⁰³	/-yom-il-i-a/	‘dry up’	<i>-yóm-a</i>	‘dry’
<i>-lékeleya</i>	/-lek-il-i-a/	‘throw at’		

The following phrases further exemplify the applicative construction:

382. *akát̄ya kamba na kyím̄be*

a- katı -a kamba na kimbe
 1SM- cut.with -FV 9/10.rope with 7.knife
 ‘S/he is cutting the rope with a knife.’ (PK-E)

383. *umpót̄olya jaái uu nsigo wééne?*

u- mu- potoli -a jaai uu nsigo u- ene
 2sSM- 1OM- bring.for.s.o -FV who 3.this 3.load 3Cd- self
 ‘For whom did you bring this load?’ (HK-E)

384. *nendokúntelekyá kiláályo*

ni- endo- ku- mu- teleki -a kilaalyo
 1sSM- PRES.DJ- 15NCP- 1OM- cook.for -FV 7.food
 ‘I am cooking food for him/her.’ (SM-E)

385. *upíkánye mayígíyo*

u- pikany-e mayigíyo
 2sSM- listen -SUBJ 6.words
 ‘Listen carefully.’ (SM-E)

¹⁰³ Several forms in the data appear to have two applicative extensions, *-il-* followed by *-i-*.

8.3 Causative

The causative extension can be added to transitive as well as intransitive verbs, and in both cases a new argument is added to the syntactic frame of the simple verb (Schadeberg 2003a:73). The new argument has the semantic function of agent-causer. For example, *-bóóka* means ‘go’. With the causative extension, *-bókiya* means ‘cause to go = return (something)’.

386. *nekúbókiya pwela yááko*

ni- e- ku- bukiy -a pwela i- ako
 1sSM- FUT- 2sOM- return(tr) -FV 9/10.money 9/10Cd- 2sPOSS
 ‘I will return (you) your money.’ (AK-E)

387. *ukóléye*

u- koley -e
 2sSM- kindle(fire) -SUBJ
 ‘Turn on (the engine/fire)!’ (AK-E)

The causative extension in Ndengeleko is *-iy-*. The suffix shows vowel harmony, so that it appears as *-ey-* following a mid vowel in the verb root.

Adopting the analysis of Hyman (2003a:59) for Nande¹⁰⁴, I propose that the causative in Ndengeleko consists of the applicative extension followed by the causative extension:

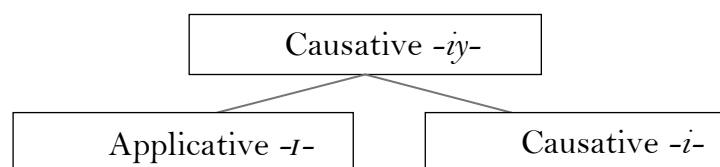


Figure 17 The structure of the causative in Ndengeleko

I propose that the causative vowel *-i-*, which is thought to be related to PB **-i-* (Schadeberg 2003a), has caused consonant loss in the applicative. The applicative vowel harmonizes with the vowel of the verb stem. Followed by the final vowel, the causative *-i-* glides to *-y-*. As in Nande, it has caused the preceding high vowel *-I-* to be raised to *-i-*. The harmonized *-ey-* remains a mid vowel.

¹⁰⁴ In Nande, the causative *-i-* glides to *y* before *-a*, as well as passing on its [+ATR] to preceding non-low vowels. For example the *ɪ* of the preceding applicative, as in *-búl-ir-i-*, becomes [búl-ir-a] ‘ask (s.o.) for (s.o.; reason)/at (place)’ (Hyman 2003a).

The analysis of the causative as a combination of suffixes accounts for the fact that this extension (actually a combination of extensions) shows vowel harmony, as vowel harmony is typical for the applicative extension. This is also the reason that consonants preceding this suffix *-iy-* have not undergone spirantisation and consonant loss, as would otherwise be expected (see section 3.4). In this analysis, for instance *-bígiya* ‘hinder s.o’ has the underlying structure /-big-ɪ-i-a/. Therefore, the consonant *g* is not lost. If there was no intervening second degree vowel *ɪ*, the consonant is expected to be lost preceding a high vowel *i*. Further examples of the causative verbs are the following:

Table 48 Examples of causatives in Ndengeleko

Causative	Underlying form	English	Related verb	English
<i>-lómíya</i>	/-lom-ɪ-i-a/	‘hurt’ (tr)	<i>-lómíya</i> /-lom-ɪ-a/	‘get hurt’
<i>-bíngíya</i>	/-bing-ɪ-i-a/	‘follow’	<i>-bíngá</i> /-bing-a/	‘chase away’
<i>-tíníya</i>	/-tin-ɪ-i-a/	‘burn’ (tr)	<i>-tíník-a</i>	‘be burnt’
<i>-ímíya</i>	/-im-ɪ-i-a/	‘extinguish’		
<i>-bókíya</i>	/-bok-ɪ-i-a/	‘return’ (tr)	<i>-bók-a</i>	‘go’
<i>-twílíkíya</i>	/-twɪlɪk-ɪ-i-a/	‘fill’	<i>-twílyá</i> /-twɪlɪ-a/	‘be full’
<i>-yíkítíya</i>	/-yíkɪt-ɪ-i-a/	‘agree’	<i>-yíkít-a</i>	‘answer’
<i>-pyóya</i>	/-pyo-ɪ-i-a/	‘heat up’	<i>-pyá</i> /-pɪ-a/	‘be cooked’
<i>-píya</i>	/-p-ɪ-i-a/	‘take away’	<i>-p-a</i>	‘give’
<i>-óbeyá</i>	/-ob-ɪ-i-a/	‘lose sth’	<i>-ób-a</i>	‘disappear’
<i>-kóleyá</i>	/-kol-ɪ-i-a/	‘light fire’		
<i>-yóóngeyá</i>	/-yong-ɪ-i-a/	‘increase’	<i>-yóngékek-a</i>	‘be(come) increased’
<i>-yólokeyá</i>	/-yolok-ɪ-i-a/	‘add’	<i>-yólok-a</i>	‘be increased’
<i>-tótokeyá</i>	/-totok-ɪ-i-a/	‘tire’	<i>-tótok-el-w-a</i>	‘be tired’
<i>-pógátíya</i>	/-pugat-ɪ-i-a/	‘to cause fruit to fall down’		

The same suffix *-iy-* occurs in Matuumbi where it can reportedly have a causative or an intensive reading (Odden 1996:45). In Matuumbi the causative suffix shows an alternation between *-ey-* when preceded by the vowels *e* and *o*, *-iy-* when preceded by *ɪ* and *u*, and *-iy-* when preceded by *i*, *u* and *a*, according to general rules of vowel harmony in Matuumbi (Odden 1996:46).

In a few lexical items in the data, a causative form *-s-* is likely to stem from PB **-ici-*, or they might be borrowed.

Table 49 Causatives in -s- in Ndengeleko

Causative	Underlying form	English	Related verb	English
-yósa	/-yo-s-a/	‘roast’ (tr)		
-lísa	/-lí-s-a/	‘feed, cause to eat’ (cattle)	-lyáa /-lí-a/	‘eat’
-bása	/-ba-s-a/	‘sharpen, chop’ (cause to be sharp)	-báb-a	‘be bitter, sharp’

A few examples of these causatives are the following:

388. *maṇéi golísa ṅóombe*

maṇei go- lis -a ṅombe
6.grass 6.REL- feed.cattle -FV 9/10.cattle
‘The grass which feeds the cattle.’ (AK-E)

389. *nendóyosa kólooso*

ni- endo- yos -a kolooso
1sSM- PRES.DJ- roast -FV 9/10.cashew
‘I am roasting cashew.’ (HK-E)

390. *abása lusóonga apala upiṃya makéṃa*

a- bas -a lusonga a- pal -a upiya makeṃa
1SM- sharpen -FV 11.stick 1SM- want -FV take.away 6.sand.fleas
‘He sharpens the stick to take away sand fleas.’ (HK-E)

8.4 Passive

The passive in Ndengeleko is expressed with the very productive and semantically regular suffix *-o*, which glides to *-w*. This suffix is reconstructed for Proto-Bantu as **-o-* occurring after a consonant and **-ibo-* after a vowel and immediately preceding the final vowel (Schadeberg 2003a:78). If there is more than one extension, the passive is in the last position. A few examples of passive forms are the following:

Table 50 Examples of passives in Ndengeleko

Passive	Underlying form	English	Related verb	English
-ándikwa	/-andik-o-a/	‘be written’	-ándik-a	‘write’
-bákíywa	/-bakiy-o-a/	‘be told’	-bákíy-a	‘tell’

<i>-bélékwa</i>	/-belek-ɔ-a/	‘be born’	<i>-bélek-a</i>	‘give birth’
<i>-kémwa</i>	/-kem-ɔ-a/	‘be called’	<i>-kém-a</i>	‘call’
<i>-ímíywa</i>	/-imiy-ɔ-a/	‘be put out (of fire)’	<i>-ímíy-a</i>	‘put out (fire)’
<i>-májwa</i>	/-maj-ɔ-a/	‘be known’	<i>-máj-a</i>	‘know’
<i>-súluuswa</i>	/-suluus-ɔ-a/	‘be sold’	<i>-súluus-a</i>	‘sell’
<i>-yígálwa</i>	/-yigal-ɔ-a/	‘be closed’	<i>-yígál-a</i>	‘close’

Some example sentences with other verbs are the following:

391. *libíinda litéliikwe ni likólo lya magéénge*

libinda li- telikwe ni likolo li- a magenge
 5.okra 5SM- be.cooked.PFV with 5.leaf 5Cd- of 6.pumpkins
 ‘The okra is prepared with pumpkin leaves.’ (HK-E)

392. *andólrwa*

a- ando- lrw -a
 1SM- PRES.DJ- be.eaten -FV
 ‘He is being eaten.’ (AK-E)

393. *ɲnáango uyígíilwe*

ɲnango u- yigiilwe
 3.door 3SM- be.closed.PFV
 ‘The door has been closed.’ (AK-E)

394. *apíywa láámu*

a- piyw -a laamu
 1SM- be.taken.out -FV 9/10.blood
 ‘He is taken blood from.’ (AK-E)

395. *ayíywa masí gá ntéela*

a- yiyw -a maasi ga- a nteela
 1SM- be.poured -FV 6.water 6Cd- of 3.medicine
 ‘He is given intravenous drip.’ (AK-E)

8.5 *Reciprocal*

The reciprocal, also called *associative* in the literature (Schadeberg 2003a), has more than one agent, and the action is carried out by the agents together or against each other. In Ndengeleko, the extension is *-gan-* or *-an-*. The PB reconstruction for the reciprocal is **-an-*. Double extensions with non-compositional meanings built on the reciprocal *-an-*, for example with the form *-a(n)gan-*, have been shown to exist in many Bantu languages (Bostoen and Nzang-Bie 2010).

Reciprocal	Underlying form	English	Related to	English
<i>-bónágana</i>	/-bon-agan-a/	‘see each other’	<i>-bón-a</i>	‘see’
<i>-sángana</i>	/-sang-an-a/	‘frustrate each other’		
<i>-pómøndana</i>	/-pomond-an-a/	‘beat each other’	<i>-pómóonda</i> /-pomonda/	‘beat’

396. *tubonagana kwáákɔ?*

tu- bonagan -a kwakɔ
 1pSM- meet -FV where
 ‘Where shall we meet?’ (HK-E)

397. *tupala ubónagana kunóongɪ*

tu- pal -a ubonagana ku- nongɪ
 1pSM- want -FV to.meet 17NCP- front
 ‘We will/want to meet in the front.’ (HK-E)

398. *báána bendópómøndana*

baana ba- endo- pomondan -a
 2.children 2SM- PRES.DJ- beat eachother -FV
 ‘The children are fighting.’ (PK-E)

8.6 Neuter and impositive -ik

There were two extensions **-ik* in Proto-Bantu (Schadeberg 2003a:74-75). Verbs with the neuter (stative) extension ‘indicate that the subject is potentially or factually affected by the action expressed by the verb’ (Schadeberg 2003a:75) and is represented in verbs of destruction and experiencer verbs. One example in Ndengeleko is *-tólɪka* ‘break’.

The impositive **-ik*, with the implication ‘to put (sth.) into some position’ (Schadeberg 2003a:74), is homophonous with the neuter. In Ndengeleko, *-gúbɪka* ‘cover (e.g. a pan)’ is a likely candidate for the impositive.

Neither of the extensions appears to be productive in Ndengeleko. The vowel in the extension is subject to vowel harmony, which means it will surface as *-ek* following the mid-vowels *e* or *o* in the stem (see section 4.3). The following forms are examples in the data with these extensions.

Table 51 Examples of *-ik* in Ndengeleko

Applicative	Underlying form	English	Related to	English
<i>-kálángika</i>	/-kalang-ik-a/	‘be fried’	<i>-kálaanga</i> /-kalang-a/	‘fry’
<i>-tínika</i>	/-tin-ik-a/	‘be burnt’	<i>-tíníy-a</i>	‘burn’
<i>-tólíka</i>	/-tol-ik-a/	‘break’ (intr)		‘pierce’
<i>-góbika</i>	/-gob-ik-a/	‘cover’		
<i>-wálíka</i>	/-wal-ik-a/	‘dress’	<i>-wal-a</i>	‘wear’
<i>-téleka</i>	/-tel-ek-a/	‘cook’		
<i>-béleka</i>	/-bel-ek-a/	‘give birth’		
<i>-kúsánika</i>	/-kusan-ik-a/	‘gather’(intr)		

The following are some examples with the *-ik* extension. In (401), the verb *-kúsánika* ‘gather’ appears in the imbricated perfective form (see section 10.8.3).

399. *likólo lyandótínika*

likolo li- ando- tnik -a
 5.leaf veg 5SM- PRES.DJ- be.burnt -FV
 ‘The vegetables are burning.’ (HK-E)

400. *mafínga ga ñhééni gatétolika*

mapinga ga- a ñneni ga- te- tolík -a
 6.egg 6Cd- of 1.visitor 6SM- COMPL- break -FV
 ‘The eggs of the visitor broke.’ (PK-E)

401. *baáandu bakúsánike*

bandu ba- kusanike
 2.people 2SM- be.gathered.PFV
 ‘People have gathered.’ (HK-E)

8.7 Summary

This chapter has shown how a verb root in Ndengeleko can be extended by means of suffixes to form new verbs. Many derivational processes are common to Bantu languages and can be traced back to Proto-Bantu. In modern Ndengeleko, however, they are no longer productive, such as the suffix *-ik*. Some occur in many verbal bases, like the applicative and causative. Others, such as the passive, are totally productive and can be used, in principle, with any verb. The causative extension is analysed here as a combination of the applicative and the causative.

9. Subject and Object

This chapter describes how subjects and object are marked inflectionally in the Ndengeleko verb. The chapter is introduced in 9.1. The forms of the subject and object markers for each noun class are given in 9.2. Thereafter, subject marking is analysed in 9.3 and object marking in 9.4.

9.1 Introduction

Ndengeleko is a pro-drop language, as are nearly all Bantu languages (Nurse and Philippson 2003:8). A subject noun phrase, or a personal pronoun, can be included but this is optional. The subject of a verb phrase is obligatorily marked on the verb form in any inflected verb by means of a subject marker. Subjects are marked in the initial slot, preceding any TAM marking in the formative slot. The following example has a subject marker of noun class 9, referring to *nyumba* ‘house’:

402. *iyáki*

i- yak -i
9/10SM- burn -PFV
‘It has burnt.’ (HK-E)

Objects are marked in the so-called infix slot, immediately preceding the root. The object marker in the following example refers to *lupába* ‘spoon’, a noun of class 11:

403. *alukánsike lupaba lwáangv*

a- lu- kanz -ike lupaba lu- angv
1SM- 11OM- break -PFV 11.spoon 11Cd- 1sPOSS
‘He broke the serving spoon’ (HK-E)

9.2 Subject and object forms

The subject and object markers in Bantu languages are generally listed with first and second person (singular and plural) on the one hand, as there is only one form for each person, and third person on the other hand, the form of the third person SM and OM being dependent on the noun class to which the subject or object belongs. In the following tables, the Ndengeleko forms are presented.

Table 52 Subject and object markers for 1st and 2nd person

Person	SM	OM
1sg	<i>ni-</i>	<i>ni-</i>
2sg	<i>u-</i>	<i>ku-</i>
1pl	<i>tu-</i>	<i>tu-</i>
2pl	<i>mu-</i>	<i>mu-</i>

Table 53 Subject and object markers for noun classes (3rd person)

Noun class	SM	OM
1	<i>a-</i>	<i>mu-</i>
2	<i>ba-</i>	<i>(b)a-</i>
3	<i>u-</i>	<i>u-</i>
4	<i>i-</i>	<i>i-</i>
5	<i>li-</i>	<i>li-</i>
6	<i>ga-</i>	<i>ga-</i>
7	<i>ki-/si-</i>	<i>ki-¹⁰⁵</i>
8	<i>i-</i>	<i>i-</i>
9	<i>i-</i>	<i>i-</i>
11	<i>lu-</i>	<i>lu-</i>
12	<i>ka-</i>	<i>ka-</i>
14	<i>u-</i>	<i>u-</i>
15	<i>ku-</i>	<i>ku-</i>
16	<i>pa-</i>	<i>pa-</i>
17	<i>ku-</i>	<i>ku-</i>
18	<i>mu-</i>	<i>mu-</i>

The subject and object markers differ very little from each other, except in noun class 1. In class 2, the most common form of the object marker is *a-*. It can also be *ba-*, in free variation.

404. *nabákiya banáango*¹⁰⁶

ni- a- bakiy -a ban angu
 1sSM- 2OM- tell -FV 2.children 1sPOSS
 ‘I tell my children.’ (HN-D)

¹⁰⁵ There are no examples in the data of the class 7 object marker preceding a vowel-initial stem.

¹⁰⁶ *bána* /ba-ana/ ‘children’ (cl.2) is here contracted with the first person possessive stem *angu*, see section 6.5.2.

405. *n̄nwáwa abatélékya bana bááke kiláályo*

n̄nwawa a- ba- telekɪ -a baana ba- ake kilaalyo
 1.woman 1SM- 2OM- cook.for -FV 2.children 2Cd- 3sPOSS 7.food
 ‘The woman is cooking food for her children.’ (PK-E)

The subject marker of class 7 is *ki-* preceding a consonant, and *s(i)-* preceding a vowel.

406. *kyulo sááke kitólíke diisana*

kiulo si- ake ki- tólíke liisana
 7.water.pot 7Cd- 3sPOSS 7SM- break.PFV 5.day.bef.yesterday
 ‘Her pot broke the day before yesterday.’ (HK-E)

407. *kiláályo sandónúungya*

kilaalyo si- ando- nungɪ -a
 7.food 7SM- PRES.DJ- smell.nicely -FV
 ‘The food smells nicely.’ (HK-E)

This alternation between *ki-* and *si-* is also seen in the concord marking (see section 6.2 on nominal morphology).

With disjoint verbal forms, the infinitive prefix *ku-* (15NCP) is inserted preceding a vowel-initial OM. In the case of a consonant-initial OM, *ku-* is optional. This is also reported for Matuumbi (Odden 1996:64-65).

408. *twandókwalúsiya maliibwe*

tu- ando- ku- a- lusiɪ -a ma- liibwe
 1pSM- PRES.DJ- 15NCP- 2OM- throw.at -FV 6NCP- 5.stone
 ‘We are throwing stones at them.’ (HK-E)

409. *atékummínga*

a- te- ku- mu- bing -a
 1SM- COMPL- 15NCP- 1OM- chase.away -FV
 ‘S/he chased him/her away.’ (HK-E)

410. *atényángatiya múno*

a- te- ni- yangatiɪ -a muno
 1SM- COMPL- 1sOM- help -FV very
 ‘He has helped me a lot.’ (SM-E)

I propose that the use of *ku-* in these contexts is evidence of grammaticalisation from auxiliary constructions with the infinitive. This will be further discussed in 10.9.

9.3 *Subject marking*

The following examples illustrate the use of the subject marker for first and second person, plus (the human) noun class 1 and 2.

411. *nímmweni*

ni- mu- bweni
1sSM- 1OM- see.PFV
'I see/have seen her' (SS-E)

412. *ubii kwááko?*

u- b -ii kwako
2sSM- be -PFV where
'Where are you?' (HK-E)

413. *andópéta maálage*

a- ando- pet -a maalage
1SM- PRES.DJ- cut -FV 9/10.beans
'She is cutting beans.' (HK-E)

414. *Tuyómwiile.*

tu- yomo -iile
1pSM- finish -PFV
'We have finished.' (HN-D)

415. *mwéénga ntenda kííli?*

mwenga mu- tend -a kííli
you(pl) 18SM- do -FV what
'What are you (pl) doing?' (TN-E)

416. *banilómike nzéénzema*

ba- ni- lom -ike nzenzema
2SM- 1sOM- bite -PFV 9/10.mosquito
'The mosquitos have bitten me.' (HK-E)

As already mentioned, subject marking in Ndengeleko is obligatory, for all persons and classes. The personal pronoun is optionally included, as in the following example:

417. *Néé njikitiya kwááko.*

neenga ni- yikitiy -a kwako
I/me 1sSM- agree -FV NEG
'I do not agree!' (TO-S)

When the personal pronoun is included as above, the first person singular is in focus: 'it's me that does not agree'. Such pronouns are otherwise omitted, as the SM gives enough information regarding the subject:

418. *nikálángi koloóso*

ni- kalang -i kolooso
1sSM- fry -PFV 9/10.cashew
'I have roasted cashew.' (HK-E)

Subject noun (phrases) are also normally omitted, unless the person(s) or thing(s) talked about is new information or in focus.

419. *mbúya baatélike maálage*

mbuya ba- a- telike maalage
1a.grandmother 2SM- PST- cook.PFV 9/10.beans
'Grandmother cooked the beans.'

9.4 *Object marking*

Objects can be marked on the verb by means of an object marker, occurring in the object slot.

420. *anilómike mbwáa*

a- ni- lom -ike mbwaa
1SM- 1sOM- bite -PFV 9/10.dog
'The dog bit me.' (HK-E)

Object marking on the verb is optional in Ndengeleko. The following is an example with a human object, marked on the verb. In the second example, the human object is not marked on the verb.

421. *baantángike oyo nnwáwa*

ba- mu- tang -ike oyo nnwawa
2SM- 1OM- know -PFV 1.this 1.woman
'They know the woman.' (SS-E)

422. *abélike mwana nnwáwa*

a- belike mwana nnwawa
 1SM- give.birth.PFV 1.child 1.woman
 ‘She gave birth to a girl.’ (HK-E)

The same is the case when the object is animate. In the first example the object is marked on the verb, in the second example not:

423. *nyaabwéni nzátı kuMuhólo*

ni- a- bweni nzatı ku- Muholo
 1sSM- 2OM- see.PFV 9/10.buffalo 17NCP- Muhoro
 ‘I have seen buffalos at Muhoro (village).’

424. *atwéti indóói ayéenda usúluusa*

a- tweti indooi a- yend -a usuluusa
 1SM- take.PFV 8.squirrels 1SM- go -FV to.sell
 ‘He took the squirrels and went to sell them.’ (HK-E)

For inanimate objects, object marking is mostly omitted on the verb when the object noun phrase follows. In the following verb forms in the same description of how to prepare a certain dish, object marking is present because it is needed to refer back to the okra specified in the first clause:

425. *Mana niómike libinda lyáangɔ niısi pakááyá. Nondólitóla nondólisóka máası.*

mana ni- om -ike libinda li- angɔ ni- is -i pa- kaaya
 after 1sSM-gather -PFV 5.okra 5Cd- 1sPOSS 1sSM-come-PFV 16NCP- 9/10.home

ni- ondo- li- tool -a ni- ondo- li- sök -a maası
 1sSM- PRES.DJ- 5OM-take -FV 1sSM- PRES.DJ- 5OM- wash-FV 6.water
 ‘When I have gathered my okra I have come home. I take it (the okra) and wash it in water.’ (HN-D)

Object marking does not have to be left out, however, when the object noun phrase is included, as we can see in the following examples:

426. *oyɔ mwana akikánsike kibıga sáangɔ*

oyɔ mwana a- ki- kanz -ike kibıga si- angɔ
 1.this 1.child 1SM- 7OM- break -PFV 7.cooking.pot 7Cd- 1sPOSS
 ‘This child has broken my cooking pot.’ (HK-E)

427. *neeñyígana kila kilibe nikitángike*

ni- e- mu- yigan -a kila kilibe ni- ki- tang -ike
 1sSM- FUT- 1OM- teach -FV each 7.thing 1sSM- 7OM- know -PFV
 ‘I will teach him everything I know.’ (AK-E)

In double object constructions, it is the human object that is marked with an OM on the verb, or no object at all. The following sentence is provided by one speaker without the OM and by another speaker with the OM:

428. *nnwáwa atélékya banáábe kiláályo*¹⁰⁷

nnwawa a- teleki -a ban abe kilaalyo
 1.woman 1SM-cook.for -FV 2.children 3pPOSS 7.food
 ‘The woman is cooking food for their children.’ (PK-E)

429. *nnwáwa abatélékya bana bááke kiláályo*

nnwawa a- ba- teleki -a baana ba- ake 7.food
 1.woman 1SM- 2OM- cook.for -FV 2.children 2Cd- 3sPOSS kilaalyo
 ‘the woman is cooking food for her children.’ (HK-E)

In case of two animate objects, it is the human object which is prefixed to the verb stem, and it is not possible to code more than one object on the verb.

430. *Aisha aampáya ngóko Salíma*

Aisha a- a- mu- paí -a ngóko Salíma
 Aisha 1SM- FUT- 1OM- give.to-FV 9/10.hen Salíma
 ‘Aisha will give Salíma a hen.’ (AK-E)

9.5 Summary

As a pro-drop language, subject and object NPs or pronouns are mostly omitted in Ndengeleko. The subject is obligatorily marked on all inflected verb forms, in the initial slot. The object is optionally marked, in the infix slot. The optional marking of objects on the verb, and its implications for definiteness, focus etc., is an interesting topic for further research.

¹⁰⁷ *báána* /ba-ana/ ‘children’ (cl.2) is here contracted with the third person plural possessive stem *abe*, see section 6.5.2.

10. Tense, Aspect and Mood

In this chapter the tense, aspect and mood (TAM) categories of Ndengeleko are presented. An overview of the categories of TAM presented in this chapter is given in 10.1. The distinction between conjoint and disjoint TAM forms will be introduced in 10.2. Thereafter, the various TAM categories are presented according to mood: infinitive in 10.3, imperative in 10.4, subjunctive in 10.5 and indicative in the sections that follow. We will then come back to the conjoint/disjoint distinction and its interaction with TAM in 10.9. The conditional is analysed in 10.10, and the itive/distal markers in 10.11.

10.1 Introduction

The Ndengeleko language makes use of a wealth of inflectionally marked TAM categories. Periphrastic constructions are used to a limited extent. An exception is the future construction with *-pala*. Apart from this construction, several of the affixes have a transparent build-up of several morphemes, showing traces of grammaticalisation (see 10.9).

The following table gives an overview of the TAM categories which occur in the data, with their name, followed by their morphological structure in the second column. Certain forms are conjoint (CJ), other disjoint (DJ). This will be further explained in 10.2. In the second column, variable morphemes such as subject marker (SM) and verbal base (VB) are in capitals, and the TAM morphemes are in italics.

The IFS, which is obligatory in each verb form, carries TAM-information. This means that any given TAM category consists of a combination of pre-root TAM-information in the formative slot (which can also be \emptyset), or post-root TAM-information in the pre-final slot, together with the obligatory final vowel in the final slot. The perfective has a number of different forms (see section 10.8).

Table 54 Overview of TAM categories in Ndengeleko

TAM	Form	Example	English
INFINITIVE	<i>(k)u-VB-a</i>		
IMPERATIVE	VB- <i>a</i>	<i>lím-a</i>	‘Cultivate!’
SUBJUNCTIVE	SM-VB- <i>e</i>	<i>ni-lím-e</i>	‘I should cultivate.’
INDICATIVE			
Present CJ	SM- \emptyset -VB- <i>a</i>	<i>aíimba lyíimbwa</i> /a-imb-a li-imbwa/	‘S/he digs holes.’

Present DJ	SM- <i>ando</i> -VB- <i>a</i> SM- <i>endo</i> -VB- <i>a</i> SM- <i>ondo</i> -VB- <i>a</i>	<i>nondólíma</i> (<i>nyonda wáangʊ</i>) /ni-ondo-lim-a (<i>nyonda u-angʊ</i>)/	‘I am cultivating my field.’
Habitual CJ	SM-VB- <i>aa</i>	<i>a-lím-aa</i> (<i>nyonda wááke</i>)	‘S/he usually cultivates his/her field.’
Habitual DJ	SM- <i>and-aa</i> -VB- <i>a</i>	<i>andaálíma</i> /a-and-aa-lim-a/	‘S/he usually cultivates.’
Imperfective CJ	SM-VB- <i>aga</i>	<i>a-lím-aga</i> (<i>nyonda wááke</i>)	‘S/he cultivates his/her field.’
Imperfective DJ	SM- <i>and-aga</i> -VB	<i>andagálíma</i> /a-and-aga-lim-a/	‘S/he cultivates.’
Future	SM- <i>pal-a</i> INF	<i>mbala ukékéta</i> /ni-pal-a u-keket-a/	‘I will cut.’
Future	SM- <i>a</i> -VB- <i>a</i>	<i>waatáng-a</i> /u-aa-tang-a/	‘You will know.’
Future	SM- <i>e</i> -VB- <i>a</i>	<i>neɲɲígana</i> /ni-e-mu-yigan-a/	‘I will teach him.’
Completive	SM- <i>te</i> -VB- <i>a</i>	<i>atélíma</i> /a-te-lim-a/	‘S/e has cultivated.’
Past completive	SM- <i>a-te</i> -VB- <i>a</i>	<i>aaténnoma</i> /a-a-te-ni-loma/	‘S/he bit me.’
Past completive	SM- <i>e-te</i> -VB- <i>a</i>	<i>setítikoka</i> /si-e-te-tikok-a/	‘(The hoe) broke.’
Perfective	SM-VB.PFV ¹⁰⁸	<i>tulímike</i> /tu-lim-ike/	‘we have cultivated’
Past	SM- <i>a</i> -VB.PFV	<i>aalíle</i> /a-a-l-iile/	‘S/he ate.’
Past	SM- <i>e</i> -VB.PFV	<i>twebii..</i> /tu-e-b-ii/	‘We were...’
Past Imperfective CJ	SM-VB- <i>age</i>	<i>ni-lím-age</i> (<i>nyonda wáangʊ</i>)	‘I was cultivating my field.’
Past Imperfective DJ	SM- <i>end-age</i> -VB- <i>a</i>	<i>neendagélíma</i>	‘I was cultivating.’
CONDITIONAL	SM- <i>ka</i> -STEM	<i>ni-ka-bíi..</i>	‘..when I was’
ITIVE	SM- <i>ka</i> -VB- <i>e</i>	<i>tu-ka-lól-é</i>	‘let’s (go and) have a look’
DISTAL	<i>ka</i> -SM-VB- <i>a</i>	<i>ka-a-lím-a</i>	‘he cultivated there’

The TAM terminology in this chapter is, apart from the translations, based on Bantu comparative work rather than on a fine-grained semantic analysis of the TAM system. This means that, for instance, the imperfective in *-aga/-andaga* has

¹⁰⁸ With variations in the form of the suffix.

this name because the translations indicate imperfective use, and the suffix resembles the imperfective in other Bantu languages, where it is overwhelmingly encoded by the suffix *-a(n)g-* (Nurse 2008:138). There are, however, some important observations regarding the Ndengeleko TAM system, which will be discussed in 10.9.

10.2 *The conjoint/disjoint distinction*

In Ndengeleko, certain categories of tense-aspect-mood exhibit two distinct morphological forms. Their distribution depends on their relationship with what follows the verb. The so-called conjoint form is used when there is a close link between the verb and what follows, e.g. an object, negation word or question word.

The terms *conjoint* and *disjoint* stem from Meeussen (1959) in his description of Kirundi. Other possible terms are *conjunctive* vs. *disjunctive*, or *post-verbal* vs. *verb focus* (Nurse 2008:205; Güldemann 2003). Odden (1996) uses the labels *verb focal* and *noun focal*. It is not always a noun which follows the conjoint form, however. It might also be a question word, as shown in example (435).

In Ndengeleko, as seen in Table 54, the conjoint/disjoint distinction is relevant for the present, the habitual, the imperfective and the past imperfective. This distinction will be discussed below.

The conjoint/disjoint distinction also appears to be relevant in the perfective, but here the situation is much less clear. Moreover, the use of the completive in *te-* resembles that of a disjoint form, but it is not clearly paired with a conjoint form. We will come back to the possible distinction in these TAM categories in 10.9.

10.2.1 *Form*

The conjoint/disjoint distinction is made through morphological marking in Ndengeleko. There is no indication that tonal distinctions play a role, as in some other P-languages like Mahkhuwa (van der Wal 2006).

Conjoint is the unmarked form. To illustrate the formal difference between conjoint and disjoint, consider the following two examples. In (431), we see the conjoint present form with a zero morpheme in the formative TAM slot. (432) illustrates the disjoint present form with *ando-* in the formative slot.

431. *nzóga máási*

ni- ø- yog -a masi
 1sSM- PRES.CJ- take.bath -FV 6.water
 ‘I take a bath/wash myself.’ (AK-E)

432. *naandóyóga*

ni- ando- yog -a
 1sSM- PRES.DJ- take.bath -FV
 ‘I take a bath/wash myself.’ (AK-E)

There is reason to assume a disjoint morpheme *and-/end-* (see section 10.9).

10.2.2 *Function*

The distribution of conjoint and disjoint verb forms in other Bantu languages has been shown to depend on the information structure of the sentence, and specifically on the position of focus (van der Wal 2006; Nurse 2006). When the conjoint form is used, the following constituent is in focus¹⁰⁹ to some extent. The disjoint form, on the other hand, is used when there is no specific relationship with what follows, if anything does follow. The use of the disjoint form implies a certain level of focus on the verbal action, rather than on what follows. Therefore, the disjoint form can appear phrase-finally, and the conjoint can not.

I propose that this is also the case in Ndengeleko, where a focal element in the Immediately After Verb (IAV) position (Watters 1979) coincides with the use of the conjoint form.

The conjoint form can be used when the whole verb phrase is in focus and there is an object.

433. *aándikaga balúa*

a- andik -aga balua
 1SM- write -IPFV.FV 9/10.letter (Sw)
 ‘He usually writes letters.’ (AK-E, Dahl 18 & 19¹¹⁰)

Only the disjoint form can occur phrase-finally.

¹⁰⁹ Focus is here understood as the most important or salient information given the speaker’s estimation of the pragmatic information available to the addressee (Dik 1997:68)

¹¹⁰ [Q: ‘What your brother usually DO after breakfast?’ A:] He WRITE (a) letter(s)

434. *nandagálíma*

ni- andaga- lm -a
 1sSM- IPFV.DJ- cultivate -FV
 ‘I use to cultivate.’ (AK-E)

Inherently focussed material such as question words (Rochemont 1986) and negation markers (Hyman and Watters 1984) only follow the conjoint form, not the disjoint.

We see this in (435), where the conjoint present is followed by a question word. It cannot be substituted by the present disjoint form (436).

435. *apúla jaái?*

a- pul -a jaai
 1SM- wash(clothes) -FV who
 ‘Who is washing?’ (AK-E)

436. **andopula jaai*

‘Who is washing?’

In (437), the habitual conjoint is followed by the negator. This is not possible with the habitual disjoint (438).

437. *alímaa kwáákɔ*

a- lm -aa kwakɔ
 1SM- cultivate -HAB NEG
 ‘S/he does not (habitually) cultivate.’ (AK-E)

438. **andaalíma kwakɔ*

‘S/he does not cultivate.’

An adverb can be in the focussed IAV position, necessarily preceded by the conjoint form:

439. *aándikáge kandéende*

a- andik -age kandende
 1SM- write -PST.IPFV slowly
 ‘S/he wrote (it) slowly.’ (AK-E, Dahl 29¹¹¹)

¹¹¹ [Q: Did your brother finish the letter quickly? A:] (No,) he WRITE the letter slowly

The disjoint form is not always phrase-final. It can be used when the whole verb phrase is in focus, as in (440), even if there is an object. The IAV is analysed as being empty, as opposed to example (433) where the object is in IAV.

440. *andóandika balúa*

a- ando- andik -a balua
 1SM- PRES.DJ- write -FV 9/10.letter (Sw)
 ‘He writes letters.’ (AK-E, Dahl 5-8¹¹²)

In the presentation of the various TAM categories, the conjoint form will be given first, followed by the disjoint form. Thereafter, the function of the TAM will be discussed for the two forms together. Throughout this work, conjoint forms are unmarked in the glossing of examples, and disjoint forms are marked with (DJ).

10.3 *Infinitive*

The infinitive represents the nominalisation of the verb. These verbal nouns constitute noun class 15, following Bantuist tradition. For more on noun class 15, see section 5.4. In this section, the infinitive is segmented. Elsewhere in the thesis such detail will be left out.

Form: NCP15-VB-a

The infinitive has a nominal prefix *(k)u-* in the initial slot (Meeussen 1967:108). The object marker (OM) may be included in the infinitive.

441. *kuulóla wútr*

ku- u- lol -a
 15NCP- 3OM- look -FV
 ‘to look at it (rice, cl.3) first’ (HN-D)

There is alternation between the CV- and the V- form of the infinitive prefix. When the infinitive is used as a verbal noun, in citation form or as a subject, the prefix is usually *ku-*. In the periphrastic construction with *-pala*, the prefix is *u-*.

¹¹² Dahl 5 & 6: [Q: What your brother DO right now? (=What activity is he engaged in?) A: by someone who can see him] He WRITE (a) letter(s) and also 7 & 8: [A: I just talked to my brother on the phone. B: What he do right now? A answers:] He WRITE (a) letter(s)

The reconstructed PB prefix for class 15 is **ku*, with a possible pre-prefix **u* (Nurse 2008:143). The Ndengeleko form *u-* is possibly a remnant of the pre-prefix, or a reduction of the *ku-* prefix. The periphrastic constructions which use the shorter form of the prefix are analysed as being on the path to grammaticalisation.

Function

The infinitive is used in a number of different ways in Ndengeleko. As a verbal noun, it can be modified in the same way as other nouns. In the following example, the question word *-aku* ‘which’ takes agreement in class 15.

442. *kwiina kwáaku?*

ku- in -a ku- aku
 15NCP- dance -FV 15Cd- which
 ‘Which dancing?’ (AK-E)

As a verbal noun, the infinitive can also be the subject of a verb phrase.

443. *kulima kwandótotokeya*

ku- lm -a ku- ando- totokey -a
 15NCP- cultivate-FV 15SM-PRES.DJ- tire -FV
 ‘To cultivate makes one tired.’ (AK-E)

When modified in an associative construction, the prefix is either *u-* or *ku-*.

444. *kibiga sa utélékya*

kibiga si- a u- teleki -a
 7.pot 7Cd- of 15NCP- cook.for -FV
 ‘cooking pot’ (HK-E)

When used as infinitival complements, *ku-* or *u-* are used.

445. *ywaa mwána amáni kwiina ngóma*

yu- aa mwana a- mapi ku- in -a ngoma
 1Cd- that 1.child 1SM- know.PFV 15NCP-dance-FV 9/10.dance
 ‘That child knows how to dance.’ (HK-E)

446. *Mana niyómwí ukóloga..*

mana ni- yomo -i u- kolog -a
 after 1sSM- finish -FV 15NCP- stir -FV
 ‘When I have finished stirring..’ (HN-D)

The verbal nouns can be used in non-verbal predicates to express adjectival concepts. The ‘value’ semantic type proposed by Dixon (1982:16), see section 6.3.1, is in most cases expressed verbally in Ndengeleko. One example is the verb *-nóga* ‘be beautiful’, which can be used in the infinitive. It can also be inflected in the perfective (see section 10.8).

447. *kutoola nnwáwa kunóga*

kutoola nnwawa ku- nog -a
 to.take 1.woman 15NCP- be.good -FV
 ‘Marrying a wife is good.’ (PK-E)

See also Chapter 12 on non-verbal predication. The infinitive is frequently used in narratives:

448. *Kuyeénda kólyo ammákiye oyo mwana nsíni, ukannéété ywingíné..*

ku- yend -a kólyo a- mu- bakiye oyo mwaana
 15NCP- go -FV 17.there 1SM- 1OM- tell.PFV 1.that(ref) 1.child

mu- sini u- ka- mu- let -e yu- ingine
 1NCP- small 2sSM- IT- 1OM- bring -SUBJ 1Cd- another

‘When they went there he told him: that small child, (go and) bring another one..’
 (TO-S)

10.4 Imperative

Form: VB-a

The imperative is the structurally most simple verb form in Ndengeleko and consists of the verb stem alone, without prefixes.

Function

The imperative is used to issue a direct command to a second person (Rose et al. 2002:39). In requests and orders, the subjunctive (see section 10.5) is much more common than the imperative, which is considered impolite when used with adults. It is mostly used as a command to children.

449. *ísa!*

is -a
come -FV
'Come here!' (AK-E)

450. *lóka!*

lok -a
cross -FV
'Cross! (road, river)' (AK-E)

451. *yúgwá ñnáango*

yugw -a ñnango
open -FV 3.door
'Open the door.' (AK-E)

For a command including an object marker, the subjunctive form has to be used, but the function is imperative.

452. *gabólage makóle ága*

ga- bulag -e makóle ága
6OM- kill -SUBJ 6.rats 6.these
'Kill these rats!' (AK-E)

10.5 *Subjunctive*

Form: SM/OM-VB-e

The subjunctive has the final vowel *-e*. A subject marker or an object marker, or both, precede the verbal base. The formative slot is empty. The subjunctive can co-occur with the itive (see example (456) and section 10.11.1).

In the case of an applicative extension, as with the verb *-télékya /-telekɪ-a/*, the subjunctive suffix is *-i* and vowel assimilation takes place (see 4.5.3).

453. *ntéléki munséembe ugáli*

mu- telekɪ -i munsembe ugali
1OM- cook.for -SUBJ 1.boy 14.porridge
'Cook porridge for the boy!' (SM-E)

Function

The subjunctive mood is used in polite commands, and in expressing wishes. It can also be used in the hortative sense (456).

454. *ulóke*

u- lok -e
2sSM- cross -SUBJ
'You should cross.' (AK)

455. *wíise!*

u- is -e
2sSM- come -SUBJ
'Come here!' (AK)

456. *tukalóle*

tu- ka- lol -e
1pSM- IT- look -SUBJ
'Let's (go and) have a look.' (TO-S)

457. *nigólwé kɪlɪ?*

ni- golo -e kɪlɪ
1sSM- wash -SUBJ what
'What should I clean/wash?' (SM-E)

Subjunctive forms can be used in subordinate clauses.

458. *ufúté kibée saafi*

u- fut -e ki- ba -e saafi
2sSM- sweep -SUBJ 7SM- be -SUBJ clean
'Sweep so that it is clean.' (HK-E)

459. *nyoondópomvonda simu nílóngelé na manáango*¹¹³

ni- ondo- pomvond -a simu
1sSM- PRES.DJ- hit -FV 9/10.telephone(Sw)

ni- longeel -e na mwan angv
1sSM- talk -SUBJ with 1.child 1sPOSS
'I'm calling on the phone so that I can speak to my child.' (SM-E)

The subjunctive form is also used in negative commands and 'should not'. See Chapter 11 on negation.

10.6 *Indicative non-past*

10.6.1 *Present*

The following example illustrates the present: *-sóka* 'wash' in the conjoint followed by an object in IAV, and *-bíika* 'put' in the disjoint.

460. *Nisóka kitéléko síngi nondóbika pamoóto.*

ni- sok -a kiteleeko s- ingi ni- ondo- brik -a
1sSM- wash-FV 7.frying.pan 7Cd- another 1sSM- PRES.DJ- put -FV

pa- mooto
16NCP- 3.fire

'I (then) wash another pot and put it on the fire.' (HN-D)

Conjoint form: SM-Ø-VB-a

The conjoint present has a zero morph, as seen with *-sóka* 'wash' in (460).

Disjoint form: SM-endo/ando/ondo-VB-a

The present disjoint prefix shows formal variation. The different forms of the prefix, as presented below, are apparently in individual variation. There are instances where the speaker uses two different forms in the same recording, when the same phrase is pronounced twice.

¹¹³ *mwána* /mu-ana/ 'child' (cl.1) is here contracted with the first person possessive stem *angv*, see section 6.5.2.

Table 55 Examples with *endo-/ando-*¹¹⁴

Form of prefix	Example	Underlying form	Translation	
<i>endo-</i>	<i>nendómpómónda mbwáa</i>	/ni-endo-mu-pomond-a mbwaa/	'I am hitting the dog.'	HK
	<i>nyeendóyíya</i>	/ni-endo-yíya/	'I am adding (it).'	HN
	<i>kendólíla</i>	/ka-endo-líl-a/	'S/he (cl.12) is crying.'	PK
<i>ando-</i>	<i>bandólima</i>	/ba-ando-lim-a/	'They are cultivating.'	PK
	<i>lwandóyuguya</i>	/lu-ando-yuguy-a/	'It (cl.11) is itching.'	HK
	<i>naandóbíja</i>	/ni-ando-bij-a/	'I am sick/ill.'	AK
<i>ondo-</i>	<i>máási gondóbíla</i>	/ga-ondo-bíl-a/	'The water (cl.6) is boiling.'	SM
	<i>woondóbíja</i>	/u-ondo-bij-a/	'It (cl.14) hurts, is bothering (i.e. the sickness)'	PK
	<i>nondópeeta</i>	/ni-ondo-peet-a/	'I am winnowing.'	HN
<i>anda-</i>	<i>nandakúmmona</i>	/ni-anda-ku-mu-bon-a/	'I see/meet him (often).'	AK

In 10.9, I will argue for a disjoint morpheme. In the present, it combines with a vowel to form *endo-* or *ando-*, but is also heard with a final *-a* as *enda-*.

Concatenation of the disjoint morpheme with the vowel of the preceding subject marker optionally leads to shortening of the resulting vowel (see section 4.7.1). Therefore, the result of *a-* 1SM followed by *ando-* PRES.DJ is mostly *ando-*, and not *aando-*. A long vowel is only heard in slow speech.

An alternate form of the present disjoint is *ano(o)-*. The same shortening rule applies. According to AK, *ano-* is not used by many people.

461. *naanóyóga*

ni- ano- yog -a
 1sSM- PRES.DJ- take.bath -FV
 'I take a bath/wash myself'

462. *aanóólyaa*

a- ano- lí -a
 1SM- PRES.DJ- eat -FV
 'He is eating.' (AK-E)

¹¹⁴ Translations are here mostly in the progressive, although this is slightly misleading. Ndengeleko does not distinguish between progressive and simple present.

463. *baána banóóbeela*

baana ba- ano- obeel -a
 2.children 2SM- PRES.DJ- play -FV
 ‘The children are playing.’ (AK-E)

In a language like Kete (L21) (Nurse 2008) there is a prefix *nó-*, which is claimed to result from the progressive prefix *ná* plus *ú*, supposedly the pre-prefix to **ku*. For the present disjoint TAM *ando-/endo-/ondo-*, I propose that the final vowel *-a* has merged with the *u-* prefix of the infinitive, much as the prefix *nó-* does in Kete. As seen in section 10.3 on the infinitive, the *u-* prefix is used when the infinitive is in a close auxiliary construction, as with *-pala* ‘want’.

It is likely that *-pala* is on its way to being grammaticalised as a future TAM (see section 10.7). It is assumed here that *ando-/endo-/ondo-* has gone further in the grammaticalisation process, and is now a TAM.

Function

Following Bybee et al. (1994:126), the present is regarded as covering various types of imperfective situations, and does not primarily have to do with deictic temporal reference. The following are some examples in the present.

464. *kene undáábise niandika balúa*

kene u- ni- taabis -e ni- andik -a balua
 NEG 2sSM- 1sOM- disturb -SUBJ 1sSM- write -FV 9/10.letter(Sw)
 ‘Don’t disturb me, I’m writing (a) letter(s)’ (AK-E, Dahl 83¹¹⁵)

465. *abína óma*

a- bij -a oma
 1SM- be.sick-FV 9/10.fever (Sw)
 ‘He has a fever.’ (AK-E)

466. *naandóbína*

ni- ando- bij -a
 1sSM- PRES.DJ- be.sick -FV
 ‘I am ill.’ (AK-E)

¹¹⁵ [Father to child:] (Please do not disturb me), I WRITE a letter

467. *kindoóli abótóka kulóka balabáála*

kindoóli a- bótók -a kuloka balabaala
 7.squirrel 1SM- run -FV to.cross 9/10.road(Sw)
 ‘The squirrel runs across the road.’ (HK-E)

468. *apiti úúngo páno, mána pandónúunga*

a- pit -i ungo pano mana pa- ando- nung -a
 1SM- pass -PFV 9/10.genet 16.here after 16SM- PRES.DJ- stink -FV
 ‘A genet has passed here, that’s why it stinks.’ (HK-E)

469. *iláályo yandónúungya*

ilaalyo i- ando- nungi -a
 8.food 8SM- PRES.DJ- smell.nicely-FV
 ‘The food smells nice.’ (HK-E)

470. *twandakwáalekeleya makáando*

tu- anda- ku- a- lekeley -a makando
 1pSM- PRES.DJ- 15NCP- 2OM- throw.at -FV 6.pebbles
 ‘We are throwing pebbles at them.’ (AK-E)

The present includes habitual and gnomic situations (Bybee et al. 1994:126).

471. *úóbi batáma kupóngoti*

úóbi ba- tam -a ku- pongoti
 9/10.leopard 2SM- sit -FV 17NCP- 9/10.bush
 ‘Leopards live in the bush.’ (HK-E)

472. *nandakúmmona*

ni- anda- ku- mu- bon -a
 1sSM- PRES.DJ- 15NCP- 1OM- see -FV
 ‘I see/meet him (often).’ (AK-E, Dahl 40¹¹⁶)

This TAM can also have future reference when used with an adverbial such as *maláabo* ‘tomorrow’.

¹¹⁶ [Q: Do you know my brother?] (Yes,) I MEET him often (up to now)

473. *tubónagana maláabu*

tu- bonagan -a malaabu
 1pSM- meet -FV tomorrow
 ‘We will meet tomorrow.’ (HK-E)

The following example is indicated by the speaker as having the same meaning as the sentence with the verb form in the future (see example (503)).

474. *agéni ábılı baisesa maláabu*

ageni a- bílı ba- is -a malaabu
 2.guests 2Cd- two 2SM- come -FV tomorrow
 ‘Two guests will come tomorrow.’ (AK-E)

The present is frequently used in descriptive narratives, wherein the speaker is explaining a certain procedure, e.g. how to cook a dish. The perfective is used in the first sentence of a series, mostly preceded by *mana* ‘after’. The following sentences are all in the present (conjoint or disjoint), as this small piece of such a narrative shows.

475. *Maná nibwii nondópolwa waa mpóonga. Mana níyómwiile kupólwa nondópeeta.*

mana ni- búi ni- ondo- pulo -a u- aa mponga
 after 1sSM- return.PFV 1sSM- PRES.DJ- thresh -FV 3Cd- that 3.rice

mana ni- yomo-iile kupolwa ni- ondo- pet -a
 after 1sSM- finish-PFV to.thresh 1sSM- PRES.DJ- winnow -FV

‘When I have returned I thresh the rice. When I’m finished threshing I winnow.’
 (HN-D)

This is a different strategy from narratives such as stories, told about the past, whereby the present is only used in direct speech (quotes).

476. *Polisi batekwábakiya: aga mayígíyo twénga, tugáwésa kwáako muyende mahakamááni.*

polisi ba- te- ku- a- bakiy -a aga mayígíyo
 police 2SM- COMPL- 15NCP- 2OM- tell -FV 6.these 6.words

twenga tu- ga- wes -a kwakú mu- yend -e mahakamani
 we 1pSM- 6OM- can -FV NEG 2pSM-go -SUBJ in.the.court

‘The police told them: this argument, we we can't deal with it, you have to go to court.’ (TO-S)

The adjectival semantic value ‘bad’ is expressed with a verb in Ndengeleko, as well as ‘bitter’ and ‘heavy’. These verbs can be inflected in the present disjoint.

477. *nnwáwa oyó aandoákala*

nnwawa oyó a- ando- akal -a
 1.woman 1.this 1SM- PRES.DJ- be.bad -FV
 ‘This woman is bad.’ (HK-E)

478. *wandóákala*

u- ando- akal -a
 3SM- PRES.DJ- be.bad -FV
 ‘You are bad.’ (HK-E)

479. *lawa yíno yandóbaba*

lawa yí- no i- ando- bab -a
 9/10.medicine 9/10Cd- this 9/10SM- PRES.DJ- be.bitter -FV
 ‘This medicine is bitter.’ (AK-E)

480. *múúndu aandótopa*

mundu a- ando- top -a
 1.person 1SM- PRES.DJ- be.heavy -FV
 ‘This person is heavy.’ (AK-E)

10.6.2 *Habitual*

In the habitual the situation is characteristic of an extended period of time (Comrie 1976:27). The habitual occurs in a conjoint and a disjoint form.

Conjoint form: SM-VB-aa

In the conjoint, the verbal base is followed by the habitual suffix *-a* in the pre-final slot, and the final vowel *-a*.

Disjoint form: SM-andaa-VB-FV

This TAM is built up of several morphemes: the disjoint *and-* (see 10.9), followed by habitual *-a*, and the final vowel *-a*. Further investigation will need to show if a form *endaa-* is possible, in analogy with other disjoint forms. There is no such example in the data.

Function

The suffix is used when it is necessary to indicate that a situation is habitual, or is something that carries on and on. It is not frequently occurring in the data. AK thinks it is ‘more Matuumbi’ to use this TAM. It is, however, not found in Odden (1996).

481. *andaálíma*

a- andaa- lm -a
1SM- HAB.DJ- cultivate-FV
‘He cultivates (habitually).’ (AK-E)

482. *Uténdekáa mpaka líno,*

u- tendek -aa mpaka líno
2sSM- let.do -HAB until today
‘You didn’t bother until today,’ (TO-S)

The difference between the present and the habitual is illustrated with the following examples:

483. *alíma kwááko*

a- lm -a kwako
1SM- cultivate -FV NEG
‘He does not cultivate (now).’ (AK-E)

484. *almaa kwááko*

a- lim -aa kwako
1SM- cultivate -HAB NEG
'He does not cultivate (habitually).'

 (AK-E)

10.6.3 *Imperfective*

Conjoint form: SM-VB-aga

This TAM consists of the suffix *-ag*, followed by the final vowel *-a*, together in the IFS. The suffix *-ag* is a reflex of **-a(n)g-*, which is often the source of what is called imperfectives in Bantu (Rose et al. 2002:41).

Disjoint form: SM-endaga/andaga-VB

This TAM is built up of two morphemes: the disjoint *end-/and-*, followed by imperfective *-ag* in the pre-final slot, and the final vowel *-a*. The form is grammaticalised and used in combination with the verb stem.

485. *wandagátyaanga*

u- andaga- tyang -a
2sSM- IPFV.DJ- walk -FV
'You usually walk.'

 (AK-E)

It is, however, also possible to use the infinitive with this form, with the prefix *u-*.

486. *nandagá ulíma*

ni- andaga- ulíma
1sSM- HAB- to.cultivate
'I usually cultivate.'

 (AK-E)

Function

The imperfective represents any situation that the speaker wants to show as lasting over a period of time, a situation that is typically unbounded, where neither beginning nor end are mentioned, relevant, or known. (Nurse 2008:136). It expresses both ongoing progressive action and habitual occurrence.

487. *aándíkaga balúa*

a- andik -aga balua
1SM- write -IPFV 9/10.letter(Sw)
'He usually writes letters.' (AK-E, Dahl 18 & 19¹¹⁷)

488. *uyéndaga ní magoló*

u- yend -aga ni magoló
2sSM- go -IPFV with 6.legs
'You often walk/tend to walk.' (AK-E)

10.7 *Indicative Future*

Future time reference is expressed in a number of ways in Ndengeleko. The most commonly heard form, at least with younger speakers, is with the auxiliary *-pala* 'want', a common strategy for forming the future in the world's languages (Heine and Kuteva 2002:310). This construction appears to be on its way to being grammaticalised (see 10.9).

The future can also be expressed by using the present followed by a temporal adverb, e.g. *maláabv* 'tomorrow' in (474)

In the current study, some differences between the uses of the future TAMs have become apparent (see below), but more research is needed in order to corroborate these hypotheses. Moreover, for some speakers at least, it is plausible that the future with *-pala* is replacing the older TAM *a-/e-*.

10.7.1 *The future with -pala*

Form: SM-pala Infinitive

The future with *-pala* 'want' is a periphrastic construction (see section 10.9).

489. *apala utíkwa*

a- pal -a utíkwa
1SM- want -FV to.break
'He is going to/wants to break it.' (HK-E)

¹¹⁷ [Q: 'What your brother usually DO after breakfast?' A: He WRITE (a) letter(s)]

With an object, the OM precedes the infinitival verb stem. In these cases, the infinitive prefix is *u-* or *ku-*.

490. *apala ukitíkwa*

a- pal -a u- ki- tɪkw -a
 1SM- want -FV 15NCP- 7OM- break(tr) -FV
 ‘He wants to break it.’ (HK-E)

491. *Upala kumpátá kwáakɔ?*

u- pal -a ku- mu- pat -a kwakɔ
 2sSM- want -FV 15NCP- 1OM- get -FV where
 ‘Where are you going to get him?’ (TO-S)

Function

As Dahl (1985:140) points out, a periphrastic construction may belong to the core categories of a TAM system if it is used in an obligatory or systematic way. This is the case with the Ndengeleko future with *-pala*. At least for some speakers, this construction is the only means of expressing future.

The verb *-pala* can also be used together with an infinitive to express intention and wish, rather than future.

492. *nipála upíma lubánja ibíli*

ni- pal -a upíma lubanza i- bíli
 1sSM- want -FV to.buy 11.plot 8Cd- two
 ‘I want to buy two plots.’ (HK-E)

In its function as a TAM, the semantic range of this future form is wide. Apart from intention, it also expresses predictions about the future.

493. *umánde upala uyóngেকেকা*

umande u- pal -a uyongেকেকা
 14.cold 14SM- want -FV to.be(come).increased
 ‘It will become colder.’ (AK-E)

The language consultant indicates that a future with *e-* (*umánde weyóngেকেকা*) has the same meaning as example (493).

In Dahl’s prototypical sentence for the prospective future, given in example (494), only the example with *-pala* is mentioned by the consultant. The prospective

corresponds to English ‘going to’ (Dahl 1985:111). We might also consider this construction to be intentional, or a form of immediate future.

494. *mbala kwáandika balúa*

ni- pal -a kuandika balua
 1sSM- want -FV to.write 9/10.letter(Sw)
 ‘I want/will write a letter.’ (AK-E, Dahl 22 & 23¹¹⁸)

The following is another example of the verb *-pala* ‘want, look for’, when not used as a future:

495. *banipála née au bakupála wée?*

ba- ni- pal -a nee au ba- ku- pal -a wee
 2SM- 1sOM- want -FV me or 2SM- 2sOM- want -FV you
 ‘Are they looking for me or for you?’ (HK-E)

The *-pala* construction can be used in combination with the future prefix *a-/e-*. A prototypical sentence for predicted events, question 81 (Dahl 1985:201) can be translated using the future in *-epala*.

496. *weepála uwáa*

u- e- pal -a uwa
 2sSM- FUT- want -FV to.die
 ‘You will die.’ (AK-E, Dahl 81¹¹⁹)

This sentence can also be translated with the future prefix *e-*: *weewáa* (see example (505)).

10.7.2 Future with *a-/e-*

Form: SM-a-VB-a

A vowel *a-* follows the subject marker in the post-initial slot and precedes the verbal base. The vowel of the SM *ni-* coalesces with the future TAM.

¹¹⁸ [Q: What are you planning to do right now? A:] I WRITE (a) letter(s)

¹¹⁹ [Q: What HAPPEN if I eat this mushroom?] You DIE

497. *nakááliya*

ni- a- kaaliy -a
 1sSM- FUT- be.angry -FV
 ‘I will be angry.’ (AK-E)

This is optional and appears to be down to individual variation. In the speech of language consultant SM, there is no coalescence.

498. *nyakéketa ni kyíimbe*

ni- a- keket -a ni kimbe
 1sSM- FUT- cut.around -FV with 7.knife
 ‘I will cut (it) with knife.’ (SM-E)

Form: SM-e-VB-a

In the third person singular, the SM *a-* assimilates to the future *e-* with a resulting long *ee-* (see example (500)).

Function

This TAM is used for intention, possibility, and events which are planned by the agent and supposed to occur at any time in the future.

499. *nebapáya nkéka béembe*

ni- a- a- paɪ -a nkeka bembe
 1sSM- FUT- 2OM- give.to-FV 3.mat they
 ‘I will give them a mat.’ (AK-E)

There is no known distinction between the form *a-* and the form *e-*, for example distance in time. According to language consultant AK, the future with *a-* indicates a lower degree of certainty than with the prefix *e-*. This has not been systematically tested, however.

500. *eeándíka balúa*

a- e- andik -a balua
 1SM- FUT- write -FV 9/10.letter(Sw)
 ‘He writes/will write a letter.’ (AK-E, Dahl 81 & 82¹²⁰)

120 [Q: What your brother DO when we arrive, do you think? (=What activity will he be engaged in?)] He WRITE (a) letter(s)

501. *aándikya balúa*

a- a- andikı -a balua
1SM- FUT- write.to -FV 9/10.letter(Sw)
'He will write a letter (to me).' (AK-E, Dahl 15¹²¹)

In the context of Dahl's question 15, the speaker is unsure of what the brother will do, and is indicating a possibility. This is also evidenced by the preferred inclusion of *pmgi* 'maybe' preceding the verb, by language consultant AK.

The form with *a-* is used in what Dahl calls 'scheduling' (Dahl 1985:110):

502. *twaténda kwáákɔ kási maláabɔ*

tu- a- tend -a kwakɔ kasi malaabɔ
1pSM- FUT- do -FV NEG work tomorrow
'We will not work tomorrow.' (AK-E, Dahl 82¹²²)

The intended time can be specified with an adverb. Compare the following example with (474).

503. *agéni ábılı baáísa maláabɔ*

ageni a- bılı ba- a- is -a malaabɔ
2.guests 2Cd- two 2SM- FUT- come -FV tomorrow
'Two guests will come tomorrow.' (AK-E)

504. *maláabɔ twakwéla kitóombı*

malaabɔ tu- a- kwel -a kitombı
tomorrow 1pSM- FUT- climb -FV 7.hill
'Tomorrow we will climb the mountain.' (SM-E)

A prototypical sentence for predicted events, question 81 (Dahl 1985:201) is answered with the future prefix *e-* by the language consultant.

505. *weewáa*

u- e- w -a
2sSM- FUT- die -FV
'You will die.' (AK-E, Dahl 81¹²³)

121 [Q: What your brother DO if you don't go to see him today, do you think? A:] He WRITE a letter (to me)

122 (According to the contract) we not WORK tomorrow

123 [Q: What HAPPEN if I eat this mushroom?] You DIE

10.8 *Indicative Past/perfective*

10.8.1 *Completive*

Form: SM-te-VB-a

The completive is formed with the TAM marker *-te*. This marker occurs in the formative slot.

Function

This TAM is analysed as a completive, as there is an element of completeness in many examples in the data (i.e., the object of the action is totally affected, consumed or destroyed (Bybee et al. 1994:57)). Another sense which appears to be relevant for Ndengeleko, also described by Bybee et al. (1994), is that the action is reported with some emphasis or surprise value. See also 10.9 for a discussion of the origin of this TAM.

In elicitation, speakers often indicate that this verbal form is freely interchangeable with the perfective. The two forms do not occur in exactly the same contexts, however. In many examples with *te-*, we find the sense of being totally affected.

506. *langi yééne itébooka*

langi i- ene i- te- book -a
9/10.colour(Sw) 9/10Cd- self 9/10SM- COMPL- go -FV
'The colour is gone.' (HK-E)

507. *Nnwáwa, nnáloome, atékúŋŋaa.*

nnwawa nnáloome a- te- ku- mu- lí -a
1.woman 1.man 1SM- COMPL- 15NCP- 1OM- eat -FV
'Woman, man, he ate them.' (TO-S)

508. *kutépéngiile*

ku- te- pengile
17SM- COMPL- get.wet.PFV
'It has become wet.' (AK-E, Dahl 59¹²⁴)

¹²⁴ [Looking out of the window, seeing that the ground is wet] It RAIN (not long ago)

An adverb can be added for emphasis.

509. *atégolwa múno*

a- te- góló -a muno
1SM- COMP- wash -FV very
'He has cleaned much.' (SM-E)

Some further evidence for the completive sense comes from the following pair:

510. *ndélia*

ni- te- lí -a
1sSM- COMPL- eat -FV
'I have eaten.' (AK-E)

511. *ndíile*

ni- líile
1sSM- eat.PFV
'I have eaten.' (AK-E)

The perfective form *ndíile* 'I have eaten' can, according to language consultant AK, be given as the answer to 'come and eat', meaning 'I'm not hungry, I have eaten'. On the other hand, the completive *ndélia* 'I have eaten', can be the answer to 'where are the cashews?', meaning 'I have eaten, they are finished'. Focus is on the completeness of the action. More systematic testing is needed to properly establish this correspondence, however.

In narratives, *te-* is found in stories, where it often seems to occur at the completion of events, as in the following example, where the person in question has been looking for a healer in many villages.

512. *kwíka kólyó, atékúmpata ñhángá.*

kuika kó- lyó a- te- ku- mu- pat -a ñhángá
to.arrive 17Cd- that 1SM- COMPL- 15NCP- 1OM- get -FV 1.healer
'When he arrived there, he found a healer.' (TO-S)

10.8.2 *Past Completive*

Form: SM-a-/e-te-VB-a

The prefix *a-* or *e-* precedes the completive prefix, followed in turn by the verbal base.

Function

This TAM is used for past completive reference. It has the same areas of use as the completive, which is also often translated in the past. Adding the *a-* or *e-* for deictic distance gives greater emphasis to the past reference.

513. *moóto wetéimiywa*

mooto u- e- te- imiyw -a
 3.fire 3SM- PST- COMPL- be.put.out -FV
 ‘The fire was put out.’ (AK-E)

514. *aatépomonda kwa makákála*

a- a- te- pomond-a ku- a makakala
 1SM- PST- COMPL- hit -FV 15Cd- of hard
 ‘He hit hard.’ (SM-E)

10.8.3 Perfective

Ndengeleko has a number of perfective suffixes. Table 56 gives an overview of all the different forms of the perfective TAM in Ndengeleko. The suffixes are selected on phonological grounds. For some verbs, however, there is a short form *-i* and a longer form in one of the other suffixes.

The different forms are treated separately in what follows. The function of the perfective is discussed following the presentation of all the different forms. Furthermore, the interaction of these different forms and the conjoint/disjoint distinction is analysed in 10.9.

Table 56 Overview of Ndengeleko perfective affixes

Form of affix	Used with bases	Example
SM-VB- <i>i</i>	all bases ¹²⁵	-yów-a ‘hear’ > -yów-i
SM-VB- <i>ike</i>	CV(N)(V)C - canonical bases	-sók-a ‘wash’ > sók-ike
SM-VB- <i>iile</i>	extended bases, including the applicative	-yípw-a ‘take off from fire’ > -yípw-iile
SM-VB- <i>iiCe</i> , imbrication	extended bases, including causative and passive	-téléka ‘cook’ >- tél-ii-k-e

¹²⁵ Certain bases become modified in this form (see below).

There is no vowel harmony affecting the perfective suffixes in Ndengeleko, and also no nasal assimilation (which would in that case affect the *-iile* suffix).

Form: SM-VB-i

The following table presents verbs which add *-i* to the verbal base without any stem modification. Certain verbs appear to have a distinction between a conjoint and a disjoint form (see 10.9). If there is more than one perfective form in the data, this will be given in the fourth column.

Table 57 Perfective suffix *-i*

Verb stem	English	Perfective in <i>-i</i>	Longer form
<i>-kóm-a</i>	‘rain (heavily)’	<i>-kóm-i</i>	<i>-kóm-ike</i>
<i>-kém-a</i>	‘call’	<i>-kém-i</i>	<i>-kém-ike</i>
<i>-tám-a</i>	‘stay, sit’	<i>-tám-i</i>	
<i>-yáák-a</i>	‘burn’ (intr)	<i>-yáák-i</i>	<i>-yák-ike</i>
<i>-yóow-a</i>	‘hear’	<i>-yóow-i</i>	<i>-yówiine</i>
<i>-ís-a</i>	‘arrive’	<i>-ís-i</i>	
<i>-káláng-a</i>	‘fry’	<i>-káláng-i</i>	
<i>-língaan-a</i>	‘be(come) enough’	<i>-língaan-i</i>	
<i>-páya /-pai-a/</i>	‘give to’	<i>-páy-i</i>	<i>-páy-iile</i>
<i>-pótwa /-potu-a/</i>	‘carry’	<i>-pótw-i</i>	<i>-pótw-iile</i>
<i>-yókwa /-yoko-a/</i>	‘be(come) satisfied’	<i>-yókw-i</i>	

The following table presents verb forms in which the addition of the suffix *-i* causes consonant loss. The result is a synchronic alternation between C, in the present, and \emptyset in the perfective, as for example with *-póla* ‘cool down’ with the consonant *l*, which has the perfective *-póoi* without the consonant. For further discussion of spirantisation and consonant loss in Ndengeleko, see 3.4. It can be noticed that these forms are mostly intransitive, and that they all result in a long vowel.

Table 58 Perfective suffix *-i* with consonant loss

Verb stem	English	Perfective <i>-i</i>	Longer form
<i>-ból-a</i>	‘rot’	<i>-bóói/-bóli</i> ¹²⁶	
<i>-pól-a</i>	‘cool down’	<i>-póói</i>	
<i>-lól-a</i>	‘rise (of bread)’	<i>-lóói</i>	
<i>-bíl-a</i>	‘boil’ (intr)	<i>-bííi</i>	
<i>-bíík-a</i>	‘put’ (intr)	<i>-bííi</i>	<i>-bíík-ike</i>
<i>-kwél-a</i>	‘climb’	<i>-kwééi</i>	
<i>-lék-a</i>	‘leave (s.o)’	<i>-lééi</i>	
<i>-bóók-a</i>	‘go (away)’	<i>-bóói</i>	
<i>-níl-a</i>	‘rain’	<i>-nííi</i>	
<i>-yéenda /-yend-a/</i>	‘go’	<i>-yééi</i>	

515. *nzáti abóói*

nzati a- buoi
 9/10.buffalo 1SM- go(away).PFV
 ‘The buffalo is gone.’ (HK-E)

Monosyllabic stems replace the final vowel *-a* with *-i* in the perfective. The vowel is long.¹²⁷ All of the following verbs also occur with the perfective form *-iile*.

Table 59 Monosyllabic perfective stems

Verb stem	English	Perfective <i>-i</i>	Perfective <i>-iile</i>
<i>-báa /-b-a/</i>	‘be’	<i>-b-íi</i>	<i>-b-íile</i>
<i>-páa /-p-a/</i>	‘give’	<i>-p-íi</i>	<i>-p-íile</i>
<i>-wáa /-w-a/</i>	‘die,fall’	<i>-w-íi</i>	<i>-w-íile</i>
<i>-lyáa /-lɪ-a/</i>	‘eat’	<i>-l-íi</i>	<i>-l-íile</i>

Finally, there are two frequently used verbs which undergo stem modification when the perfective suffix *-i* is attached. They only have one form.

Table 60 Stem modification in the perfective

Verb stem	English	Perfective
<i>-tól-a</i>	take	<i>-twééti</i>
<i>-bón-a</i>	see	<i>-bwééni</i>

¹²⁶ Both forms are possible.

¹²⁷ For the length of monosyllabic stems, see 4.2.

Form: SM-VB-ike

CV(V)C bases take the suffix *-ike*.

Table 61 Perfective suffix *-ike*

Verb stem	English	Perfective form	Short form when present in data
-óm-a	‘gather’	-óm-ike	
-yáák-a	‘burn’	-yák-ike	-yáák-i
-kém-a	‘call’ (s.o)	-kém-ike	-kém-i
-sók-a	‘wash’	-sók-ike	
-pít-a	‘pass’	-pít-ike	
-lóm-a	‘bite’	-lóm-ike	
-kún-a	‘grate’	-kún-ike	
-pém-a	‘buy’	-pém-ike	
-péenda /-pend-a/	‘wish, like’	-pend-ike	
-káanza /-kanz-a/	‘break’ (tr)	-kanz-ike	
-góonza /-gonz-a/	‘sleep’	-gonz-ike	
-léenga /-leng-a/	‘peel’	-leng-ike	
-bíik-a	‘put’	-bíik-ike	-bíii
-sóoy-a	‘strain’	-sóoy-ike	
-pómóonda /-pomond-a/	‘beat’	-pómónd-ike	

Form: SM-VB-iile

Certain verbal bases ending in a vowel take the suffix *-iile*. These are mostly extended verbs, with, for example, the applicative extension. Monosyllabic stems also take the suffix *-iile*.

Table 62 Perfective suffix *-iile*

Verb stem	English	Perfective form	Short form when present in data
-pótwa /-puto-a/	‘carry’	-pótw-iile	-pótw-i
-gómokwa /-gomoko-a/	‘uncover’	-gómokw-iile	
-yíiy-a	‘put into’	-yíiy-iile	-yíiy-i
-yípw-a /-yipw-a/	‘take off’	-yípw-iile	
-pákwa /-pako-a/	‘serve’	-pákwa-iile	

-yómwa /-yomo-a/	‘finish’	-yómw-iile	-yómw-i
-yómlyá /-yomlɪ-a/	‘dry up’	-yómɪl-iile	
-páa /-p-a/	‘give’	-p-iile	-p-ii
-báa /-b-a/	‘be’	-b-iile	-b-ii
-wáa /-w-a/	‘die’	-w-iile	-w-ii
-lyáa /-lɪ-a/	‘eat’	-l-iile	-l-ii

Form: SM-VB-iiCe: Imbrication

This suffix fuses with the verb base so that the vowel *ii* is infixes before the last consonant of the verbal base. The consonant in *-iiCe* is capitalised in the following example:

516. -yomoK-a ‘be finished’ > -yomo-ii-K-e > -yomwiiKe

517. ugímbɪ gólyɔ uyómwiike

ugɪmbɪ gɔ- lyɔ u- yomwiike
 14.beer 14Cd- that 14SM- be.finished.PFV
 ‘That beer is finished.’ (AK-E)

This morpho-phonological process is commonly referred to as *imbrication* in Bantu linguistics, following Bastin (1983). Imbrication takes place with polysyllabic verbal bases CV(N)(CV)CVC, wherein the last vowel is short. These bases are mostly extended, with the extension *-ik-* for example (see section 8.6). Moreover, verbal bases with the causative or passive extension use the imbricated form of the perfective, e.g. *-tíníy-a* /-tin-i-i-a/ ‘burn’ > *-tin-ii-y-e*, and *-bélékwa* /-belek-ɔ-a/ ‘be(come) born’ > *-bél-ii-kw-e*.

An exception to the polysyllabic requirement is the verb *-ik-a* ‘arrive’ with the imbricated perfective form *-iike* ‘has arrived’. The following examples from Ndengeleko show this regular base modification:

Table 63 Imbricated perfective verb forms

Verb stem	English	Imbricated form
-kúngaŋ-a	‘light’ (fire)	-kúng-ii-ŋ-e
-kómbal-a	‘be thin’	-kómb-ii-l-e
-bónáŋa-a	‘meet’	-bónag-ii-n-e
-kólog-a	‘stir’	-kólw-ii-g-e
-bólag-a	‘kill’	-ból-ii-g-e
-ik-a	‘arrive’	-ii-k-e

<i>-tómbok-a</i>	‘fall’	<i>-tómbw-ii-k-e</i>
<i>-kómbok-a</i>	‘give birth’	<i>-kómbw-ii-k-e</i>
<i>-tólik-a</i>	‘break’ (intr)	<i>-tól-ii-k-e</i>
<i>-tínik-a</i>	‘become burnt’	<i>-tín-ii-k-e</i>
<i>-kúsánik-a</i>	‘gather’ (intr)	<i>-kúsán-ii-k-e</i>
<i>-góbik-a</i>	‘cover’	<i>-gób-ii-k-e</i>
<i>-yánik-a</i>	‘put out to dry’	<i>-yán-ii-k-e</i>
<i>-bélek-a</i>	‘give birth’	<i>-bél-ii-k-e</i>
<i>-télek-a</i>	‘cook’	<i>-tél-ii-k-e</i>
<i>-nének-a</i>	‘put on fire’	<i>-nén-ii-k-e</i>
<i>-álibik-a</i>	‘break’ (tr) (Sw)	<i>-álib-ii-k-e</i>
<i>-ándik-a</i>	‘write’ (Sw)	<i>-ánd-ii-k-e</i>
<i>-bákiy-a</i>	‘tell’	<i>-bák-ii-y-e</i>
<i>-tíniy-a</i>	‘singe’	<i>-tín-ii-y-e</i>
<i>-kááliy-a</i>	‘be(come) angry’	<i>-kál-ii-y-e</i>
<i>-bélékw-a</i>	‘be(come) born’	<i>-bél-ii-kw-e</i>
<i>-télekw-a</i>	‘be(come) cooked’	<i>-tél-ii-kw-e</i>

Two verbs in the Ndengeleko data appear to have a suffix *-iine*. The perfective form given for *tíkwa* ‘break’ (tr) is *tíkw-iine*. There is also an intransitive form *-tíkoka* ‘break’ (intr).

518. *atíkwíine lupaba lwáangũ*

a- tíkwine lupaba lu- angũ
 1SM- break.PFV 11.spoon 11Cd- 1sPOSS
 ‘S/he broke (the stick of) the spoon.’ (HK-E)

The perfective form given for *-yówa* ‘hear’ is *-yówine*, also heard as *-yógwine*.

519. *wee mwipwa wáangũ uyówíine?*

weenga mwipwa u- angũ u- yowine
 you(sg) 1.nephew 1Cd- 1sPOSS 2sSM- hear.PFV
 ‘You my nephew have you heard?’ (TO-S)

I propose that these forms are imbricated from longer forms of the verb, which have for some reason not been recorded or are no longer used in Ndengeleko. In Matumbi, there is a verb *-tikwana* ‘break’, and Matengo has *-jowana* for ‘hear’¹²⁸.

In Eastern Bantu languages the reflex of Proto-Bantu **-ide* is often *-ile*, with or without imbrication. Certain languages have a much wider range of suffixes which are or seem related and which are used in similar contexts (e.g. Hehe and

¹²⁸ I thank Gérard Philippon for pointing this out to me.

Matuumbi) (Bastin 1983:56). In Matuumbi, the basic suffix following a CVC root is *-ite* (Odden 1996:51).

The basic form of the suffix in a given Bantu language appears following a CVC root (Bastin 1983:10). In Ndengeleko, this is *-ike* or *-i*. I do not know of any other Bantu language with a perfective suffix *-ike*. A possible explanation for the relatedness of **-ide* and *-ike* is the following: *-ile* is the suffix originally used for the perfective in Ndengeleko. This assumption is based on the commonness of *-ile* in Bantu. The suffix *-ile* can be used with imbrication. This is a fairly wide-spread phenomenon in Bantu languages. Imbrication in Ndengeleko happens with certain extended verbal bases, as we have seen. As these polysyllabic bases often end in *k* (see Table 63), the outcome of imbrication is *-ike*. I propose that this suffix has come to be ‘over-used’ in Ndengeleko, so much in fact that it is now added to canonical bases.

The two forms differ phonologically in that the imbricated suffix *-iike* has a long first vowel, and the basic suffix *-ike* not. Compare the imbricated form, *-téliike* (from *-téleka* ‘cook’), with the perfective *-sók-ike* (from *-sóka* ‘cook’).

Function

Perfectives signal that the situation is viewed as temporally bounded, and often refers to situations that occurred in the past (Bybee et al. 1994:54). In examples with the perfective in Ndengeleko, the results of those situations are mostly of present relevance, meaning that the perfective TAM also covers anterior aspect. There is no separate anterior in Ndengeleko.

520. *koloóso ikálángiike*

koloso i- kalangiike
 9/10.cashew 9/10SM- be.fried.PFV
 ‘The cashew is (ready) roasted.’ (HK-E)

The situations expressed by this TAM are not always relevant at the reference time. Moreover, they occur with temporal adverbs, which is not commonly so with anteriors (Bybee et al. 1994:62). See also example (528).

521. *niyániike pyáa*

ni- yaniike pyaa
 1sSM- put.out.to.dry.PFV already
 ‘I already put (it) out to dry.’ (HK-E)

Mostly, this TAM is used for situations which took place rather recently.

522. *nimbólige ywaa ngóle*

ni- mu- bølge yo- aa ngóle
1sSM- 1OM- kill.PFV 1Cd- that 9/10.rat
'I killed that rat.'

523. *abélike mwana nnwáwa*

a- belike mwaana nnwawa
1SM- give birth.PFV 1.child 1.woman
'She gave birth to a girl.'

524. *anilómike mbwáa*

a- ni- lom -ike mbwaa
1SM- 1sOM- bite -PFV 9/10.dog
'The dog bit me.' (HK-E)

525. *lutéela lwa ñjéni lutómbwiike*

luteela lu- a ñjéni lu- tombwiike
11.stick 11Cd- of 1.visitor 11SM- fall.PFV
'The visitor's tree fell.'

526. *nibíi panáani*

ni- bíi panaani
1sSM- put.PFV 16.on top
'I (have) put it on top.' (AK-E)

A dynamic verb like *-bona* 'see' is also used in the perfective, while the action is still ongoing. The following example can be the answer to 'do you see her?'

527. *nimmwéeni*

ni- mu- bweni
1sSM- 1OM- see.PFV
'I see/have seen him/her.' (SS-E)

With an adverb, the same phrase can refer to a situation in the past. Compare this with example (538) with the past TAM.

528. *nimmwéeni líiso*

ni- mu- bweni líiso
1sSM- 1OM- see.PFV 5.yesterday
'I saw him/her yesterday.' (SS-E)

The perfective is often used for a state, something which is valid at the present moment.

529. *gapóoi*

ga- pooi
 6SM- be(come).cool.PFV
 ‘(The water) is cool.’ (AK-E, Dahl 30 & 31¹²⁹)

There is no adjective ‘cold’ in Ndengeleko; the perfective form of the verb *-pola* ‘be(come) cool’ can be used instead. The form in example (529) is used whether the water is cold only today or whether it is usually cold.

The perfective of *-ba* ‘be’, which is *-bii* or *-biile*, is mostly used for present states. The form *a-biile*, for example, means ‘s/he’s here’. The following can mean ‘he is an old man’ or ‘there was an old man’. See also 12.1.

530. *abii múundu ηηóoi*

a- bii mundu ηηoi
 1SM- be.PFV 1.person 1.old.person
 ‘He is an old man/there was an old man.’ (HK-E)

531. *gabii mabago mabiíli*

ga- bii mabago mabiíli
 6SM- be.PFV 6.axes 6.two
 ‘There are two axes.’ (HK-E)

The perfective is often used in narratives.

532. *ηηánga ammakíye utéselewaa*

ηηanga a- mu- bakiye u- te- selew -a
 1.healer 1SM- 1OM- tell.PFV 2sSM- COMPL- be.late(Sw) -FV
 ‘The healer told him, you are late.’ (TO-S)

533. *Nitwéti niléngike.*

ni- tweti ni- leng -ike
 1sSM- take.PFV 1sSM- peel -PFV
 ‘I take (it) and peel (it).’ (HN-D)

¹²⁹ [Talking of the water in a lake which is visible to the speaker and the hearer:] (The water is usually warm, but today) it BE COLD, and [Of a visible lake, what the water is usually like] It BE COLD

Adjectival concepts expressed by verbs in Ndengeleko can be inflected for the perfective. These verbs can also be used in the infinitive (see section 10.3).

534. *kutola nnwáwa kunógike*

kutola nnwawa ku- nogike
to.take 1.woman 15SM- be.beautiful.PFV
'Marrying a wife is good.' (SS-E)

535. *bana báno banógike*

baana ba- no ba- nogike
2.children 2Cd- this 2SM- be.beautiful.PFV
'These small babies are beautiful.' (SS-E)

10.8.4 Past

Form: SM-a-/e-VB-ile

Past tense in Ndengeleko is expressed by combining the perfective with a prefix *a-* or *e-*.

Function

The form is used for a state which is no longer valid. Compare the following example with the perfective example in (529).

536. *gepóói*

ga- e- pooi
6SM- PST- cool.down.PFV
'(The water) was cold.' (AK-E, Dahl 32 & 33¹³⁰)

The following translation was given for the context 'yesterday', as well as 'many years ago':

537. *twaakwéi kitóombi*

tu- a- kwei kitombi
1pSM- PST- climb.PFV 7.hill
'We climbed the mountain.' (SM-E)

¹³⁰ [Of a visible lake, in which the speaker swam yesterday] (Today the water is warm, but yesterday) it BE COLD and [Of a visible lake] (The first time I swam in this water many years ago) it BE COLD

The following phrase refers to earlier in the day, yesterday, or before that, according to the speaker. Compare with the perfective in examples (527) and (528).

538. *naammwéeni*

ni- a- mu- bweni
 1sSM- PST- 1OM- see.PFV
 'I saw him/her.' (SS-E)

One language consultant (AK) prefers *e-* for yesterday, while *a-* can refer to earlier today, according to him.

539. *mana eepátike pwelá yááke líiso eeyéi kumpímya sawádi mwíinza*

mana a- e- pat -ike pwela i- ake líiso
 if 1SM- FUT- get -PFV 9/10.money 9/10Cd- 3sPOSS 5.yesterday

a- e- yeei ku- mu- pímrí -a sawadi mwíinza
 1SM- PST- go.PFV 15NCP- 1OM- buy.for -FV 9/10.present(Sw) 1.girl

'If he had got the money yesterday he would have bought a present for the girl.'
 (AK-E, Dahl 105¹³¹)

10.8.5 *Past imperfective*

Conjoint form: SM-VB-age

The IFS *-age* consists of *-ag* in the pre-final slot and the vowel *-e* in the final slot, and is attached to the verb base.

Disjoint form: SM-andage-VB-a

The disjoint morpheme *and/end* combines with *-age* for the past imperfective disjoint form. It is assumed here that this form is grammaticalised, as the verb is not used with an infinitive prefix. This TAM is sometimes also heard as *anage-*, which might be a further grammaticalisation of the prefix.

¹³¹ [The speaker knows the boy was expecting money, but he doesn't know if he got it] If the boy GET the money (yesterday), he BUY a present for the girl

Function

This TAM indicates an ongoing action in the past.

540. *aándíkage balúa*

a- andik -age balua
1SM- write- PAST.IPFV 9/10.letter(Sw)
'He was writing letters.' (AK-E, Dahl 9-12¹³²)

541. *liiso neendagélíma*

liiso ni- endage- lím -a
5.yesterday 1sSM- PST.IPFV.DJ- cultivate -FV
'Yesterday I was (busy) cultivating.' (AK-E)

In the first line of a story, the perfective can be used to introduce the situation, while the past imperfective indicates what was going on at the time, as in the following example.

542. *aabi múundu, alímage ηηóónda*

a- a- bii mundu a- lím -age ηηonda
1SM- PST- be.PFV 1.person 1SM- cultivate-PST.IPFV 3.field
'There was a man who was cultivating his field.' (TO-S)

As well as action, the TAM can refer to an ongoing state in the past.

543. *naaláangiya kolyo ndámage*¹³³

ni- a- a- langiy -a kó- lyo ni- tam -age
1sSM- FUT- 2OM- show -FV 17Cd- that 1sSM- sit -PST.IPFV
'I will show them where I lived.' (AK-E)

In combination with *-pala* 'want', *-age* indicates the future conditional. This construction is followed by an infinitive.

¹³² Q 9 & 10 [A: I went to see my brother yesterday. B: What he DO? (=What activity was he engaged in?)] He WRITE (a) letter(s) and Q11 & 12 [A: I talked to my brother on the phone yesterday. B: What he DO? (=What activity was he engaged in?)] He WRITE (a) letter(s)

¹³³ It is rare, but occurs more than once in the data that a conjoint form is phrase-final like in this example. This needs further investigation.

544. *nikabli ni pwéela nipalage upíma ligááli*

ni- ka- bii ni pwela ni- pal -age upíma ligali
1sSM- COND- be.PFV with 9/10.money 1sSM- want -IPFV to.buy 5.car
'If I had money I would buy a car.' (HK-E)

Further examples are the following:

545. *yínga yandágéyuguya*

yínga i- andage- yuguy -a
9/10.body 9/10SM- PST.IPFV.DJ- itch -FV
'The body was itching.' (HK-E)

546. *aandagekúnkema*

a- andage- ku- mu- kem -a
1SM- PST.IPFV.DJ- 15NCP- 1OM- call -FV
'S/he was calling him/her.' (HK-E)

The past imperfective is often used for a situation in process while something else is happening, which is viewed as bounded temporally ('I returned', in example (547)). For this purpose, the perfective or completive is used in the second clause.

547. *yaa nibóvi, nibwéni indagébóla*

yaa ni- bwii ni- bweni i- andage- bol -a
when 1sSM- return.PFV 1sSM- see.PFV 8SM- PST.IPFV.DJ- rot -FV
'When I returned I found it rotting.' (HK-E)

548. *nilímage ηηonda wáangv ovv aisi*

ni- lm -age ηηonda u- angv ovv a- isi
1sSM- cultivate -PST.IPFV 3.field 3Cd- 1sPOSS 3.this 1SM- come.PFV
'I was cultivating my farm when he arrived.'

549. *nendagelíma kigembe kitetikoka*

ni- endage- lm -a kigembeki- te- tikok -a
1sSM- PST.IPFV.DJ- cultivate-FV 7.hoe 7SM- COMPL- break(intr) -FV
'The hoe broke when I was cultivating.'

550. *nendagelima njonda wangu apaiike*

ni- endage- lim -a njonda
1sSM- PST.IPFV.DJ- cultivate -FV 3.cultivated ground

u- angu a- pa- iike
3Cd- 1sPOSS 1SM- 16NCP- arrive.PFV
'I was cultivating my farm when he arrived.'

10.9 The TAM system and the conjoint/disjoint distinction

The aim of this section is to give an overview of the different categories of indicative TAM in Ndengeleko in terms of their function and their relationship to each other. For some TAM categories, we will also discuss their possible origins, and we will come back to the conjoint/disjoint distinction.

Tense is associated with the sequence of events in real time, and aspect with the internal temporal 'structure' of a situation, while mood relates the speaker's attitude toward the situation or the speaker's commitment to the probability that the situation is true (Payne 1997:234). In certain cases, it might be difficult to tell these three apart. It is not uncommon, for instance, for categories that are usually regarded as aspectual to be constrained as to temporal reference (Dahl 1985:23).

The semantics of the Ndengeleko TAM system needs further study. For example, a habitual interpretation is found with the present (see example (472)), the habitual (see example (481)) and the imperfective (see example (487)). Moreover, it should be kept in mind that the interviews have been held in Swahili, and my understanding of the Ndengeleko phrases come from the translations by the language consultants. Interference is always a possibility. The questionnaire by Dahl (1985) is designed to avoid this problem by using the infinitive form of the verb. This, however, also poses a challenge.

A few general traits of the the Ndengeleko TAM can be noted. The following figure aims at illustrating the system, and will be dicussed below.

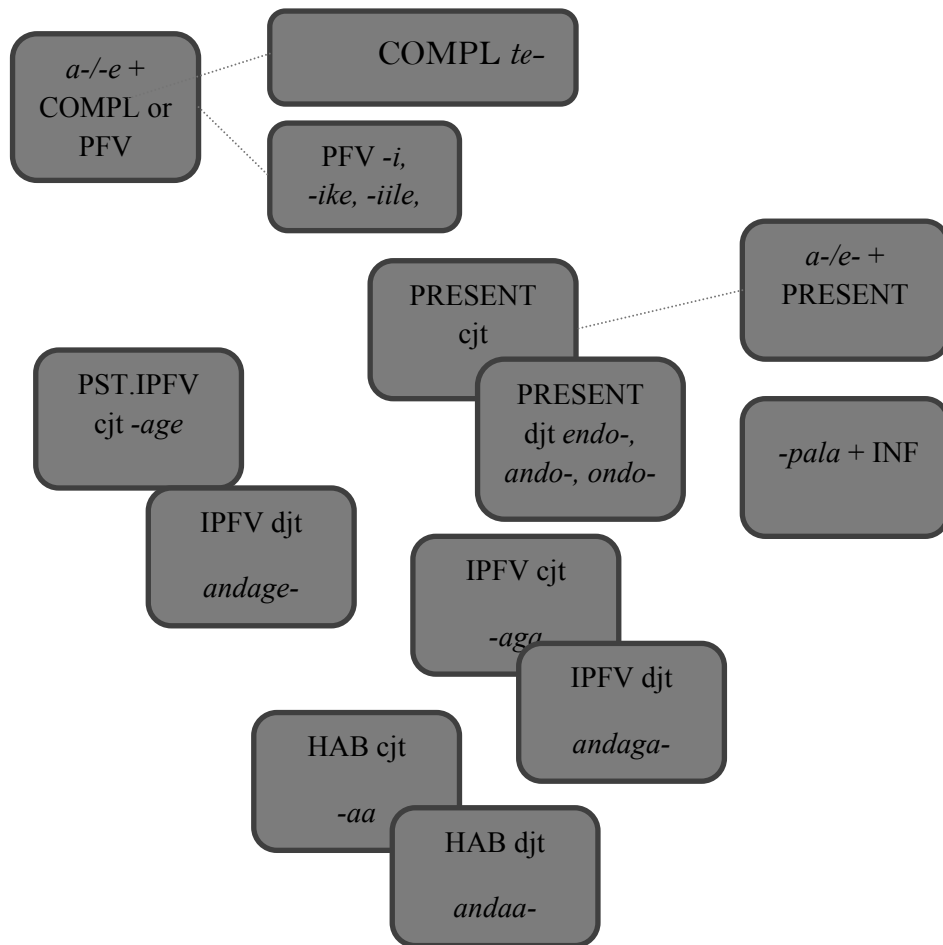


Figure 18 Overview of the Ndengeleko TAM categories

This figure implies a timeline, with past to the left and future to the right. However, the Ndengeleko TAM system appears largely aspectual and past as well as future is expressed by combinations of morphemes. It is built around the perfective and imperfective, as well as the present, which also expresses many aspectual senses.

It is common for prefixes and the IFS to combine to show tense-aspect in Bantu languages (Nurse 2003:93). The prefixes *a-* and *e-* signal deictic distance in Ndengeleko, and occur in the post-initial slot in combination with a pre-root or post-root TAM. In combination with the completive *te-* or the perfective, the meaning is past. When used together with a present, the meaning is future.

The future form with *a-* or *e-* in the TAM slot occurs much less in the data than the future in *-pala*. It is mainly recorded with older speakers. Due to this, and to the non-transparency of this morpheme, it is considered to be an older form of the future. Interestingly, *a-/e-* can also combine with *-pala* to form a future, as seen in section 10.7.1.

Speakers indicate that there is no difference in meaning between the different future forms (AK). As pointed out in Bybee et al. (1994:243), it is not uncommon for a language to have more than one TAM which has the future as a function. The independent development of TAM from different sources and at different periods of time results in layers of relatively old markers underlying layers of more recently evolved ones. If these multiple forms continue to be used in the language, there could come to be differences in the range of uses to which each may be put, such as immediate and far future, definite and indefinite.

It is assumed here that the future with *-pala* is on its way to being grammaticalised into a future TAM. The auxiliary and the main verb are tightly knit together prosodically, and one might consider analysing the construction as involving a TAM *-palau*. An argument for this is that the tone on *-pala* as a future auxiliary is LL, and as a verb it is HL, as seen in the following example where *-pala* ‘want/look for’ is used as a regular verb with the sense ‘look for’:

551. *bapála kibíga sáabe*

ba- pal -a kibíga si- abe
 2SM- look.for -FV 7.cooking.pot 7Cd- 3pPOSS
 ‘They are looking for their pot.’ (HK-E)

The future form *-pala* is still considered an auxiliary here, however, followed by the infinitive. The reason for this is that *-pala* has a final vowel (FV) and the main verb has an infinitive prefix, although it is the shorter form of this prefix. Moreover, if grammaticalisation to a future TAM was complete, we might expect the vowel sequence *au* to coalesce and the TAM to be **-palo*, in analogy with the grammaticalisation of the present DJ prefix *-endo/-ando/-ondo* (see below). Also, *-pala ku-* is occasionally heard, instead of *-pala u-*:

552. *mbala kwáandika balúa*

ni- pal -a kuandika balua
 1sSM- want -FV to.write 9/10.letter(Sw)
 ‘I want/will write a letter.’ (AK-E, Dahl 22 & 23¹³⁴)

The fact that *-pala* as a future auxiliary can be used together with the verb *-pala* ‘want, look for’ is another indication of its grammaticalisation.

¹³⁴ [Q: What are you planning to do right now? A:] I WRITE (a) letter(s)

553. *Upala upála ηηάnga?*

u- pal -a kupala ηηάnga
2sSM- want -FV to.look.for 1.healer
'Are you going to look for a healer?' (TO-S)

The Ndengeleko language does not make any distinction between recent and remote pasts, as in many Bantu languages (Nurse 2008:88). Remoteness in time has to be indicated by adverbials, e.g. *líiso* 'yesterday'.

Disjoint morpheme

The disjoint forms presented in this chapter, namely the present, the habitual, the imperfective and the past imperfective, share a common morpheme *end-* or *and-*.

In these forms, the morpheme is followed by the final vowel *-a* (in the present also *-o*) or the imperfective *-ag-*. This disjoint morpheme is analysed as being grammaticalised from a periphrastic construction with a semantically generic verb followed by a non-finite content verb (Güldemann 2003). It possibly has its origin in the PB verb **gènd* 'walk; travel; go; go away', or in **tend* 'act, make'. The following arguments point to this:

1. The imperfective *-ag-* is added to this morpheme to form the imperfective disjoint *andag-*. In the conjoint form, *-ag-* is added at the end of the verb root. Therefore, I assume that *end/and* was originally a verb root, to which *-ag-* has been added.
2. The present disjoint form ends in *-o*, which is argued in 10.6.1 to be a merger of the final vowel *-a* in *-enda* and the infinitive *u-* in a former auxiliary construction.
3. The disjoint forms with *end/and* insert the infinitive prefix *ku-* preceding vowel initial object markers and optionally preceding consonant initial object markers, see for examples section 9.2. This is evidence that the constructions with *end-/and-* are likely to have developed from auxiliary constructions with the infinitive form including the prefix *ku-*.
4. The occasional occurrence of such forms (see the imperfective in 10.6.3, example (486)) with the infinitive form of the verb rather than the verb stem, even when there is no object marker, is further evidence for this.

The reason for the variation in the first vowel is still unclear. Moreover, it remains to be explained why this variation is greater in the present TAM, which is

pronounced [endo], [ando] or [ondo], than with the other disjoint forms with this morpheme, where the variation is limited to [and] or [end].

Conjoint/disjoint in the completive and perfective?

In the completive and perfective TAMs, the distinction between conjoint and disjoint is an area which needs further research. There is evidence that the completive is a disjoint form, but it does not clearly pattern with a conjoint counterpart.

The completive TAM is proposed to have derived from PB **tì* ‘say, quote’. In Matuumbi, there is a prefix *ti-*¹³⁵, which is a verb-focal (i.e. disjoint) past non-progressive, in the analysis of Odden (1996:64). An example is *nitítuumbuká* ‘I just fell’ (Odden 1996:58). It is likely that *te-* in Ndengeleko is disjoint as well, as the verb form cannot be negated or followed by a question word. Moreover, it behaves like other disjoint forms in taking the infinitive prefix *ku-* preceding object markers (see section 9.2).

In the perfective, it appears that a distinction between conjoint and disjoint is sometimes made. When there is such a distinction, the conjoint form has the suffix *-i*, and the disjoint form is any of the suffixes *-ike*, *-iile* or *-iiCe*.

554. *niyíngii yñómba*

ni-	yingi	-i	mu-	N-	yomba
1sSM-	enter	-PFV	18NCP-	9/10NCP-	house

‘I have entered the house’ (HN-D)

555. *ayingiile*

a-	yingi-iile
1SM-	enter-PFV

‘He went in.’ (AK-E)

556. *uyówiine?*

u-	yowine
2sSM-	hear.PFV

‘Have you heard?’ (HK-D)

¹³⁵ With a variant *te-* for some speakers.

557. *weyúú! Niyowi kwáa.*

weyuu ni- yowi kwako
no! 1sSM- hear.PFV NEG
'No! I haven't heard.' (HK-D)

Not all verbs pattern this neatly, however. The verb *-teliike* 'have cooked', for example, occurs phrase-finally in (558). It also occurs in phrases where there is a focussed element in IAV, such as the question word in example (559). In fact, the suffix *-ike* is never involved in the pairs of perfective forms which appear to make a distinction between conjoint and disjoint. I propose that this perfective form is neutral as to the conjoint/disjoint distinction, following terminology by Odden (1996).

558. *ngítwee tutéliike*

ngi= twe tu- telike
and- we 1pSM- cook.PFV
'It's indeed us who have cooked.' (AK-E)

559. *ateliike náái bókobóko?*

a- telike naai bokoboko
1SM- cook.PFV who 9/10.bananastew
'Who cooked the banana stew?' (SM-E)

In what follows, some examples are given of verbs where the distinction is apparently made between a conjoint and a disjoint form:

560. *atúmbwi liníki kasi íyo?*

a- tumbu -i liniki kasi iyo
1SM- start -PFV when 9/10.work(Sw) 9/10.that(ref)
'When did he start that work?' (AK-E)

561. *atúmbwiile*

a- tumbu -iile
1SM- begin -PFV
'He has started.' (AK-E)

This disjoint form cannot be followed by a question-word:

562. **atumbwile liniki kasi ryo?*

a- tumbu -iile liniki kasi ryo
1SM- start -PFV when work 9/10.that(ref)
'When did he start that work?'

In the following two examples, the disjoint form *-iile* is phrase-final, and the conjoint form *-i* is followed by a question-word, inherently focussed in the IAV.

563. *ηηόόι awííle*

ηηοι a- w -iile
1.old.person 1SM- die -PFV
'The old person died.' (SM-E)

564. *awí lííni?*

a- w -ii líini
1SM- die -PFV when
'When did he die?' (SM-E)

The IAV can also contain an object, which is the logical subject in a sentence with locative inversion:

565. *pandu páno pawí íimba*

pandu pano pa- wi imba
16.place 16.here 16SM- fall/die.PFV 9/10.lion
'A lion has died at this place.' (AK-E)¹³⁶

Other examples with the conjoint form in the question, and the disjoint form in the answer, include the following:

566. *Stéfani abii kwáaku?*

Stefani a- bii kwaku
Stephanie 1SM- be.PFV where
'Where is Stephanie?' (TN-E)

567. *ywéembe abiile*

ywembe a- biile
s/he 1SM- be.PFV
'She is here.' (TN-E)

¹³⁶ According to the language consultant, the lion is still there. This can be compared with the past in example 370, where the lion is gone.

However, short forms are often phrase-final, which is not expected for conjoint forms. The verbs in such phrases are always intransitive.

568. *mwéei ukwéei*

mwei u- kwei
 3.moon 3SM- climb.PFV
 ‘The moon has climbed (is high in the sky).’ (AK-E)

569. *Aasha, bwémbe ulóóí?*

Aasha bwembe u- lóóí
 Aisha 14.flour 14SM-rise.PFV
 ‘Aisha, has the flour risen?’ (AK-E)

The interaction between the different perfective forms and the conjoint/disjoint distinction is an interesting area for further research.

10.10 *Conditional*

A verbal prefix *ka-* in the formative TAM-slot can be used to construct sentences with the conditional meaning ‘if’ (570) or the temporal meaning ‘when’ (571). In the present corpus, conditional *ka-* occurs in subordinate clauses, preceded or followed by another verb clause.

570. *nikabii ni pwéela nipalage upíma ligááli*

ni- ka- bii ni pwela ni- pal -age
 1sSM- COND- be.PFV with 9/10.money 1sSM- want -PST.IPFV

upíma ligaali
 to.buy 5.car(Sw)
 ‘If I had money I would buy a car.’ (HK-E)

571. *twandágélongeela kilwii nikabii mwana nsimáána*

tu- andage- longeel -a kilwii
 1pSM- PST.IPFV.DJ- talk -FV 7.vernacular

ni- ka- bii mwana nsimaana
 1sSM- COND- be.PFV 1.child 1.small.one
 ‘We spoke Ndengeleko when I was a small child.’ (HK-E)

572. *Ukaliisagé lyaa lísiku, ikalingááni, léelo, wisi límo...*

u- ka- li- is -age Ir- aa lisiku
2sSM- COND- 5OM- come -PAST.IPFV 5Cd- that 5.day(Sw)

i- ka- limgaan -i lelo u- is -i límo
9/10SM- COND- be.enough-PFV now 2sSM- come-PFV today
'If you had come that day, it would have been good, but now you came today..'
(TO-S)

Matuumbi has a similar conditional *ka-* (Odden 1996:67), as do several other Bantu languages (Nurse 2008:243). The conditional *ka-* is unrelated to the past/future/itive/distal *ka-* in Bantu languages (J. Maho, p.c. 2008). I presume this is also the case in Ndengeleko.

Condition can also be expressed by other means in Ndengeleko, for example by using *mana* 'when', together with the perfective. According to the speaker HK, there is more certainty that the condition will be fulfilled in this construction compared with example (570).

573. *mana nibíi ni pwéela nipala upíma baisikééli*

mana ni- bii ni pwela ni- pal -a upíma baisikeeli
when 1sSM- be.PFV with 9/10.money 1sSM- want -FV to.buy 9/10.bicycle(Sw)
'When I get enough money I will buy a bicycle.'

Temporal 'when' is also expressed with the perfective or the completive (see examples (547)-(550)). The conditional *ka-* can in fact also occur in the pre-initial slot, just like the distal *ka-* discussed below. However, it occurs in a periphrastic construction and not independently, as distal *ka-* does. This has not been systematically tested and needs further study.

574. *kigéembe kitétikoka kanílima*

kigembe ki- te- tikok -a ka- ni- lím -a
7.hoe 7SM- COMPL- break(intr)-FV COND- 1sSM- cultivate-FV
'The hoe broke when I was farming.' (AK-E)

10.11 *Itive/distal ka-*

There are two additional morphemes with the form *ka-* in Ndengeleko, supposedly unrelated to the conditional.

These two, analysed as an itive and as a distal prefix, have similar functions, but differ in morphological and syntactic distribution. In languages in general, itive

and distal markers are diachronically related, as distal markers tend to develop from itive markers ('to go' > itive 'go and' > distal 'there') (J.Maho, p.c. 2008).

Distal *ka-* has moreover extended its function further, to include a temporal reference.

10.11.1 *Itive*

Form: SM-ka-VB-e

This morpheme co-occurs only with the subjunctive. It occurs in the formative TAM slot. Itive *ka-* is the most widespread of the *ka-* forms across Bantu languages, according to Nurse and Philippson's (2006) study, occurring in at least 33% of their sample of 100 languages from all Guthrie's zones.

Function

The function of this morpheme is to indicate motion away from the deictic centre, which is the meaning added by an itive marker (Schadeberg 1990). The itive verb form with *ka-* in Ndengeleko is either preceded by a verb of motion, or itself contains a verb of motion such as 'bring', 'take (somewhere)'.

It should be noted that this is the same as what Botne (1999) calls a distal marker, although strictly speaking, itive and distal markers are different. Itive involves movement away, and distal does not. Distal refers to the location (not close to the deictic centre) where the 'action' of the verb takes place.

The subjunctive forms with *ka-* can occur independently, or be preceded by imperative, subjunctive and simple present forms. The following examples are from different narratives. However, the form is not frequent in such narratives, and is therefore not assumed to be a consecutive.

575. *Linda weété, tukulólé, lidungu lyááke libii kólyó!*

lɪnd -a weete tu- ka- lol -e lidungu li- ake
wait -FV you 1pSM- IT- look -SUBJ 5.house 5Cd- 3sPOSS

li- bii kólyó
5SM- be.PFV 17.there

'Wait a moment, let's (go and) have a look, his house was over there.' (TO-S)

576. *maná uyómwi kupóola ukátéke maasi*

mana ku- yomo -i ku- pol -a
 after 15NCP- finish -PFV 15NCP- pound -FV

u- ka- tek -e maasi
 2sSM- COND- take.a.bit -SUBJ 6.water

‘When you have finished pounding, go and fetch water.’ (AK-E)

In the following example, the distal (initial) *ka-*, which will be discussed in section 10.11.2, co-occurs with the itive *ka-*, which is bolded in the example.

577. *Kaammakiya, maná upála oyo nkólóngwa nimmolagé, ubuyé ukááya, ukampále mwáána, unnééte páno.*

ka- a- mu- bakiy -a mana u- pal -a oyo nkolongwa
 DST- 1SM- 1OM- tell -FV if 2sSM- want -FV 1.that(ref) 1.man

ni- mu- bulag -e u- buy -e ukaya
 1sSM- 1OM- kill -SUBJ 2sSM- return -SUBJ 14.home

u- ka- mu- pal -e mwana u- mu- let -e pano
 2sSM- IT- 1OM- look.for -SUBJ 1.child 2sSM- 1OM- bring-SUBJ 16.here

‘He told him, if you want me to kill that man, go back home, (go and) look for a child and bring it here.’ (TO-S)

Some other examples are the following:

578. *óyo alingana kwááko! Ukantólé mwipwaagó!*

oyo a- limgaan -a kwakó
 1.that(ref) 1SM- be enough -FV NEG

u- ka- mu- tool -e mwipwa -go
 2sSM- IT- 1OM- take -SUBJ 1.nephew -your

‘That one is not enough! Go and take your nephew!’ (TO-S)

579. *Niyénda kúmigoonda ngákáté ngobo.*

ni- yend -a ku- migonda ni- ka- kat -e ngobo
 1sSM- go -FV 17NCP- 4.field 1SM- IT- cut -SUBJ 9/10.banana
 ‘I go to the field and cut the banana.’ (HN-D)

10.11.2 *Distal*

Form: ka-SM-VB-a

This TAM morpheme precedes the subject marker in the pre-initial slot. It occurs in the indicative only.

Function

The verb form is in most cases the only verb form in an utterance and does not co-occur with other clauses, often involving verbs of motion, as with itive *ka-*. The initial *ka-* appears to have a distal function. That is, the situation expressed by the verb takes place at a distance from the deictic centre, ‘there’. The distal meaning in Ndengeleko has been further extended to involve a temporal reference when appropriate: ‘then’. It mostly refers to past situations. The meaning and function of this morpheme needs further analysis.

One option is that initial *ka-* is a consecutive. Because the verb form with *ka-* is often the only one in a clause, and verb forms with *ka-* only exceptionally follow each other directly, this is not the position taken here. On the other hand, the verb form does occur a lot in narratives, so far only in traditional stories and not for example in explanations (‘how to...’). It is, however, not remarkable that a distal *ka-* occurs in narratives, when we consider the extended temporal meaning.

It is possible that consecutive *ka-* in Bantu languages has developed from itive markers. The itive meaning ‘go and’ extends via distal ‘there/then’ to a function involving ‘and then’.

The morpheme often co-occurs with verbs of motion.

580. *Ywaa nkólóngwa kaabóya ukááya,*

yú- aa nkulongwa ka- a- boy -a ukaaya
 1Cd- that 1.man DST- 1SM- return -FV 14.home
 ‘The man returned home.’ (TO-S)

581. *Kaánnéétya ywaa nkólongwa.*

ka- a- mu- leeti -a yu- aa nkolongwa
 DST- 1SM- 1OM- bring.for -FV 1Cd- that 1.man
 ‘He had the other guy brought to him.’ (TO-S)

Even when the morpheme does not occur with a verb of motion, reference is made to place, as to the field in the following example.

582. *ugo ηηónda, kuna nkólongwa ywíngíne abíi, ngiywémbe kaalíma páápaapó*

ugo ηηonda kuna nkolongwa yu- ingine a- bíi
 3.that(ref) 3.field there.is(Sw) 1.man 1Cd- another 1SM- be.PFV

ngi= ywembe ka- a- lím -a paapaapo
 and s/he DST- 1SM- cultivate -FV right.there
 ‘There was another man in that field, and he was also cultivating right there.’
 (TO-S)

Moreover, a temporal sense is sometimes covered by *ka-*, as in the following example ‘now you tell me’.

583. *Uténdékáa mpaka líno, kaúmbakíya, mwalo wa kili?*

u- tendek -aa mpaka líno
 2sSM- let.do -HAB until today

ka- u- ni- bakiy -a mwalo u- a kili
 DST- 2sSM- 1sOM- tell -FV 3.reason 3Cd- of what

‘You didn't bother until today, why do you tell me now?’ (TO-S)

10.12 Summary

This chapter has presented the many different inflectional verbal morphemes which indicate the TAM of a certain verb phrase. The TAM system appears largely aspectual, with a prefix *a-/e-* which signals deictic distance; together with a verb stem with the final vowel *-a* it forms the future, and together with a perfective stem it forms the past. The Ndengeleko language distinguishes between conjoint and disjoint forms of certain TAMs, namely the present, the habitual and the imperfective, as well as the past imperfective.

In the perfective, there are different forms of the suffix depending on the structure of the verb stem in question. Canonical verb stems select *-ike*, which is an unusual form of the perfective suffix in a Bantu comparative perspective. This

form is proposed to have developed through overuse of the imbricated suffix with verbs ending in *k*. Also in the perfective, there appears to be a distinction between conjoint and disjoint. However, the picture is not yet clear and needs further research.

The TAM system relies on inflection, and periphrastic constructions are not commonplace, apart from the future, which is mostly expressed by an auxiliary construction.

There is much variation in TAM-markers between Bantu languages due to the ‘constant rebuilding of the inflectional system’ (Schadeberg 2003b:151). We see traces of this rebuilding in Ndengeleko as well, where different TAM forms appear to be on the path to grammaticalisation. The auxiliary future form *-pala*, for example, is used with a reduced form of the infinitive, and the disjoint forms *and-/end-* are proposed to have derived from an auxiliary construction.

11. *Negation*

Negation in Ndengeleko is symmetrical. In the terminology of Miestamo (2005:52), this means there is a one-to-one correspondence between the members of affirmative and negative paradigms, much as in German, for example. There are no structural changes to the negative form, apart from the addition of a negative marker.

This is not unusual in a Bantu comparative perspective, although similar constructions are mostly found in other zones of the Bantu speaking area. However, Matuumbi (Odden 1996) also has a symmetrical negative construction as a standard sentential negator. Many other Bantu languages have asymmetric paradigms with complex series of negative verbal inflections (see for instance Kagulu (Petzell 2008:123)).

In Ndengeleko, a negative word is used immediately preceding or following the verb. Moreover, there is a very limited set of negative markers. In what follows, standard (section 11.1) as well as non-standard negation (section 11.2) will be discussed and the different negators presented. The etymology of the standard negator is reflected upon. There is no historical data for Ndengeleko. However, based on language-internal evidence and comparisons with other Bantu languages, it is hypothesised that the negative marker is grammaticalised from a locative interrogative.

11.1 *Standard negation*

Standard negation refers to the basic strategy(s) a language has for negating declarative verbal main clauses (Miestamo 2005:1). In Ndengeleko, there are two strategies for this. The most commonly used strategy is the addition, directly following the verb, of the negator *kwáako*, alternatively *kwáa*. The phrase in (584), in the perfective, is negated in (585).

584. *lino nzíbwike kitáábu*

lino ni- yíbwike kitaabu
today 1sSM- forget.PFV 7.book
'Today I have forgotten the book.' (AK-E)

585. *lino nzibwike kwáako kitáabu*

lino ni- yibwike kwako kitabu
today 1sSM- forget.PFV NEG 7.book
'Today I have not forgotten the book.' (AK-E)

All indicative verbal forms, as presented in Table 54, can be negated this way. However, because a negation marker is inherently focused, normally only the conjoint form of a particular TAM can be used (cf. 10.2.2).

586. *ngolwi kwáako*

ni- golo -ii kwako
1sSM- clean -PFV NEG
'I didn't clean.' (SM-E)

587. **ngolwile kwako*

ni- golo -iile kwako
1sSM- clean-PFV NEG
'I didn't clean.' (SM-E)

The perfective suffix *-ike* in examples (584) and (585) is neutral when it comes to the conjoint/disjoint distinction, and therefore occurs in affirmative as well as negated phrases. Below, negated forms of some of the TAMs are given as examples.

Present:

588. *alima kwáako*

a- lim -a kwako
1SM- cultivate -FV NEG
'He does not cultivate.' (AK-E)

Perfective:

589. *utyáangi kwáako?*

u- tyang -i kwako
2sSM- walk -PFV NEG
'Didn't you walk?' (SM-E)

Past Imperfective:

590. *abólagage kwáako?*

a- bolag -age kwako
1SM- kill -PST.IPFV NEG
'S/he was not killing (someone)?' (SM-E)

Past:

591. *mwaagónsike kwáakv?*

mu- a- gonz -ike kwakv
2pSM- PST- lie.down -PFV NEG
'Didn't you (pl) sleep?' (SM-E)

Habitual:

592. *alímaa kwáakv*

a- lím -aa kwakv
1SM- cultivate -HAB NEG
'He does not cultivate.' (AK-E)

11.1.1 *Form and origin of the negative marker kwakv*

The negative marker *kwáakv* is identical in form to the interrogative *kwáakv*, meaning 'where'. This interrogative consists of the class 17 locative concord *ku-*, followed by the stem *akv* 'which'. Literally, *kwáakv* therefore means 'which place'.

593. *Stéfani abii kwáakv?*

Stéfani a- bii kwakv
Stephanie 1SM- be.PFV where
'Where is Stephanie?' (SS-E)

The stem 'which' can be used in all other noun classes as well (594), including class 15 (595), where the form is identical to class 17:

594. *ywáakv*

yu- akv
1Cd- which
'Which one (person)?' (AK-E)

595. *kwáina kwáakv*

kuina ku- akv
to.dance 15Cd- which
'Which dancing?' (AK-E)

The proposal here is that the interrogative 'which place' in class 17 has become grammaticalised as a negative marker. This extension of the function of the locative interrogative *kwáakv* is not as far-fetched as it might seem. Locatives are sources of negative markers in other Bantu languages, such as Kanincin (Devos et

al. 2010). The grammaticalisation of class 16 and class 17 locative pronouns as post-verbal negative markers occurs in several Bantu languages (Devos et al. 2010:164). The motivation for this can be found in the non-locative semantics of originally locative morphemes - a partitive/minimising meaning in Kanincin, for example (Devos et al. 2010:165).

596. *dááŋ-âp*

eat.IMP-16OC¹³⁷

‘eat a little’

(Kanincin, Devos et al. 2010:165)

These morphemes can be used with inherently negative verbs for an emphatic reading: ‘(not) even a little’ leads to ‘completely’.

597. *lik-âp*

refuse.IMP-16OC

‘refuse completely!’

(Kanincin, Devos et al. 2010:165)

In Ndengeleko, the stem ‘which’ can, of course, also be used in the other locative classes: *páakv* cl.16 ‘where’ (specific location) and *mwáakv* cl.18 ‘where’ (inside). But the class 17 interrogative is the form which has developed into a negative marker. How did such a grammaticalisation process take place?

It is hypothesised here that the locative ‘which place’ has, at a certain point in time, been added to another existing strategy, in order to strengthen negation. As Miestamo (2005:209) explains, negatives often need extra emphasis as they typically contradict propositions whose content is supposed in the context. Now, this other strategy has been abandoned and the negative emphatic marker with locative origin is the only strategy left – it has become conventionalised and no longer has an emphatic meaning.

This means that Ndengeleko standard negation has reached the third stage of the ‘Jespersen Cycle’¹³⁸, which in short ‘describes how a negator may collocate with a strengthener, which may later become an additional exponent of negation and possibly the only one’ (van der Auwera 2009). This is comparable with the use of the French strengthener *pas* ‘step’ on its own in modern French, possibly leaving the doubling stage with *ne...pas* behind. In Ndengeleko, the only exponent

¹³⁷ OC stands for Object Concord.

¹³⁸ The term was coined by Dahl (1979).

of negation left is the strengthener *kwáako*, now ‘bleached’ (Devos and van der Auwera forthcoming) to be the neutral negator in the language. In Ndengeleko, no trace of a former preverbal negative marker has been found. In Kanincin, a previous stage of the Jespersen Cycle is evident in proverbs (Devos et al. 2010:173).

Ndengeleko might have reached this third stage relatively recently, as the marker is still intact: it has exactly the same form as the locative interrogative, and it has not been cliticised. However, there are signs of further grammaticalisation. Nothing can intervene between the verb and the negator. The negator can be shortened to *kwáa*. Interestingly, the interrogative ‘where’ can also be shortened to *kwáa*.

Another possible indication of cliticisation is the influence on prosody. For at least some speakers, or possibly in some contexts, the addition of the negative marker lowers a preceding H tone on the verb base.

598. *Niyɔwi kwáa.*

ni- yowi kwako
 1sSM- hear.PFV NEG
 ‘I haven’t heard.’ (HK-E)

599. *maílo gabɔka kwáa aíima*

maílo ga- bok -a kwako aiima
 6.soot 6SM- go -FV NEG easily
 ‘Soot is not easily removed.’ (HK-E)

600. *ammweni kwáako mwínja*

a- mu- bweni kwako mwínja
 1SM- 1OM- see.PFV NEG 1.girl
 ‘He does not see the girl.’ (SS-E)

This influence on prosody is just an observation at this point, and needs to be corroborated by further analysis of the speech of different language consultants.

Because of the homophony with the interrogative, the semantics of clauses with *kwáako* or *kwáa* are often ambiguous in meaning. Context will usually provide clues to the intended reading.

601. *ubii kwáakó*

u- bii kwakó
2sSM- put.PFV where
'You didn't put it?/Where did you put it?' (AK-E)

602. *apita kwáa*

a- pit -a kwakó
1SM- pass -FV NEG/17Cd.that
'S/he is not passing./She is passing over there.' (HK-E)

The cross-linguistic tendency is for negative markers to occur before the verb (Dryer 1988). The marker *kwáakó/kwáa* always follows directly after the verb, preceding any object.

603. *báantángike kwáakó oyó nnwáawa*

ba- mu- tang -ike kwakó oyó nnwawa
2SM- 1OM- know -PFV NEG this 1.woman
'They do not know the woman.' (SS-E)

11.2 *Other negation strategies*

The negative marker *kwáakó/kwáa* is also used in non-verbal (examples (604) and (605)) and existential clauses (606) in Ndengeleko, as is also the case in Kaninchin, for example (Devos et al. 2010:160).

604. *Ywáa mundu kwáa!*

yó- aa mundu kwakó
1Cd- that 1.person NEG
'That's not a person!' (HK-E)

605. *beembe kwáakó*

bembe kwakó
they NEG
'It's not them.' (AK-E)

606. *kundu kólyó kunogike kwáa*

kundu kó- lyó ku- nog -ike kwakó
17.place 17Cd- that 17SM- be.beautiful -PFV NEG
'That place is not nice.' (AK-E)

Negation of interrogatives can be expressed with the verb *-kana*, 'to refuse'. In the following example, 'you refuse (for) what' translates as 'why didn't you':

607. *ukáni kílí kumbákíya, kanítumbwa kulíma?*

u- kan -i kílí ku- ni- bakíy -a
2sSM- refuse -PFV what 15NCP- 1sOM-tell -FV

ka- ni- tumbu -a kulíma
IT- 1sSM- begin -FV to.cultivate

‘Why didn’t you tell me before I started cultivating?’ (TO-S)

The infinitive is also used in negative constructions with the auxiliary *-kana* ‘refuse’.

608. *ngááni uyéenda Bandalísalaam*

ni- kan -i uyenda Bandalísalaam
1sSM- refuse -PFV to.go Dar es Salaam
‘I don’t want to go to Dar es Salaam.’ (AK-E)

In negated commands, the negative marker *kene* is used together with the subjunctive. It always precedes the verb.

609. *tenda bwíisú kené ungóyógwe*

tend -a bwíisú kene u- ni- koyogo -e
do -FV carefully NEG 2sSM- 1sOM- poke -SUBJ
‘Be careful not to poke my eye.’ (HK-E)

610. *kené uyigalé*

kene u- yigal -e
NEG 2sSM- close -SUBJ
‘Don’t close.’ (AK-E)

This construction is also used for ‘should not’.

611. *kené mbóóke*

kene ni- bok -e
NEG 1sSM- go -SUBJ
‘Let me not go/I had better not go.’ (AK-E)

It seems likely that *-kana* ‘refuse’ and *kene* are related in some way in Ndengeleko. Further indication for this comes from Matuumbi, where *kana* is used for negated commands, as in *kaná upíme* ‘don’t buy’ (lit. ‘refuse that you buy’) (Odden 1996).

11.3 Summary

Negation in Ndengeleko is symmetrical and is expressed by negative markers. Declarative verbal main clauses are negated by means of *kwáa* or *kwááko*, directly following the verb in the IAV. The verb form is necessarily conjoint, or neutral as to the conjoint/disjoint distinction.

This negator is proposed to have derived from the locative interrogative with the same form, and to have originally been a strengthener of negation, but is now the only exponent of negation.

In negated commands, the negator is *kene* and precedes the subjunctive form.

12. *Copula constructions and non-verbal predication*

This section concerns a number of constructions whose main predicate is not a verb. In 12.1, copula constructions are discussed, together with other means of forming non-verbal predicates in Ndengeleko. This is followed by a discussion of existential clauses in 12.2 and the negated existential in 12.3.

12.1 *Copula constructions*

In order to link a subject to the predicate, the verb *-ba* ‘be’ is used in Ndengeleko, as it is many other Bantu languages (Rose et al. 2002). This verb is sometimes combined with *ni* ‘with’ (613).

612. *mwéenga mubi yíka*

mwéenga mu- bii yíka
you(pl) 2pSM- be.PFV alone
‘You (pl) are alone.’ (AK-E)

613. *mundu yólyo abíi ni nnáka*

mundu yó- lyo a- bii ni nnaka
1.person 1Cd- that 1SM- be.PFV with 3.anger
‘That man is angry/has anger.’ (AK-E)

Another example with the verb ‘to be’ is (614). The link between subject and predicate can be expressed without the verbal copula: with *ni* only (615); and with a juxtaposition of two nouns (616). The three constructions basically express the same meaning ‘he is an old person’.

614. *abíi mundu ηηóoi*

a- bii mundu ηηóoi
1SM- be.PFV 1.person 1.old.person
‘He is an old person.’ (HK-E)¹³⁹

615. *ywéembe ni ηηóoi*

ywembe ni nng’ooi
s/he and 1.old.person
‘He is an old person.’ (HK-E)

¹³⁹ This type of phrase often introduces narratives, and in that case means ‘there was an old man’.

616. *mundu ηηóoi*

mundu ηηóoi
1.person 1.old.person
'He is an old person.' (HK-E)

When no copula is used, non-verbal predication can also be expressed by using the associative.

617. *baa mbúsi ba amáηaati*

ba- aa mbusi ba- a amaηaati
2Cd- that 9/10.goat 2Cd- of 2.Barabaigs
'Those goats belong to the Barabaig people.' (HK-E)

As mentioned in 10.3, the infinitive can be used in non-verbal predication to express certain adjectival concepts, such as 'bad'. In such phrases, the infinitive can be used in an associative construction or preceded by a demonstrative (see 4.7.2 for illustration of the shortening processes at work here):

618. *miséengo ya kwákála*

misengo i- a kuakala
4.houses 4Cd- of to.be.bad
'bad houses' (HK-E)

619. *misengo yaa kwákála*

misengo yi- aa kuakala
4.houses 4Cd- that to.be.bad
'Those houses are bad.' (HK-E)

Concepts such as 'bitter' and 'heavy' can also be expressed in this way.

620. *lawa yíno kubába*

lawa yi- no kubaba
9/10.medicine 9/10Cd- this to.be.bitter
'This medicine is bitter.' (AK-E)

621. *mundu yóno kutópa*

mundu yo- no kutopa
1.person 1Cd- this to.be.heavy
'This person is heavy.' (AK-E)

In Ndengeleko there is no difference, whether segmental or prosodic, between the attributive and predicative usage of adjectives. Hence, there is no distinction

between ‘the big house’ and ‘the house is big’. Both translate as *jóomba ngólo*. Examples are given in Table 64.

Table 64 Adjectives in attributive/predicative use

Example	Translation
<i>ywaa múundu mpiili pii</i>	‘that very black person/that person is very black’
<i>báandu akólo</i>	‘big people/the people are big’
<i>nkebe ówo nsóno</i>	‘this small cup/this cup is small’
<i>mikongo yíno miláaso</i>	‘these tall trees/these trees are tall’
<i>liikótó lisápu</i>	‘dirty ear/the ear is dirty’
<i>mási mapóou</i>	‘cool water/the water is cool’
<i>masúngwa mabóou</i>	‘rotten oranges/the oranges are rotten’
<i>kiti síno kisíni</i>	‘this small chair/this chair is small’
<i>pwéla ndóondwa</i>	‘found money/the money is found’
<i>mbáá mbíi</i>	‘uncooked rice/the rice is uncooked’
<i>mbáá ngéele</i>	‘red rice/the rice is red’
<i>lukilí lupána</i>	‘broad ‘lukili’ (length of mat)/the lukili is broad’
<i>kapésa kaúu</i>	‘small white hare/the small hare is white’
<i>pandu páipi</i>	‘a short space’
<i>kukóto</i>	‘a nice place/the place is nice’
<i>Kibiti kutálu</i>	‘Kibiti is far’

To express a property of a person, a commonly used construction in Ndengeleko involves the subject marker followed by the vowel *a*, in turn followed by the adjective inflected for singular or plural. This construction is used for all persons, and is not possible in other classes than 1 and 2. Note that the *a* becomes lengthened preceding NC and following a glide.

Table 65 The adjective *-sini* used for persons

person	‘small’	Underlying	person	‘small’	Underlying
1SG	<i>naansíni</i>	/ni- a sini/	1PL	<i>twaasíni</i>	/tu- a sini/
2SG	<i>waánsni</i>	/u- a sini/	2PL	<i>mwaasíni</i>	/mu- a sini/
class 1	<i>nsíni</i>	/mu- sini/	class 2	<i>asíni</i>	/a- sini/

The element *a* is analysed here as a verbal morpheme used in a copular sense. These constructions translate as ‘I am small’, ‘you are small’ etc. and can be used with any adjective, if appropriate in the context. Other examples include *naankólo* /ni-a-mu-koló/ ‘I am big’, *twalaáso* ‘we are tall’, *naankéle* ‘I am red (= a white person)’. This construction is also the basis of the greeting system, where you ask *waankóto?* ‘are you fine?’ and answer *naankóto* ‘I am fine’.

12.2 *Existential constructions*

Existential constructions are introduced by the locative prefixes. The verb ‘to be’ is used in such constructions. Example (622) has the same meaning as the copular construction in (623).

622. *kubii ni múundu kuyéeto*

ku- bii ni mundu kuyeeto
17SM- be.PFV with 1.person 17.toilet
‘There’s someone in the toilet.’ (hK-E)

623. *muúndu abi kuyéeto*

mundu a- bii kuyeeto
1.person 1SM- be.PFV 17.toilet
‘Someone is in the toilet.’ (HK-E)

624. *kulwii kubii ni miséengo ya jánsima*

ku- lui ku- bii ni
17NCP- Rufiji.area 17SM- be.PFV with

misengo i- a jánsima
4.villages 4Cd- of a.lot
‘In Rufiji there are many villages.’ (AK-E)

12.3 *Negative non-verbal constructions*

The versatile adjective *ntópo* /mu-topo/ ‘empty’, preceding or following the noun, can be used to express the negative existential ‘there is no’. This adjective is inflected for singular and plural, or can be used with any of the locative prefixes (629). For PB, there is a reconstruction **tópo* ‘only, empty, vain’.

625. *ntópo ndoondwa*

ntopo ndondwa
there.is.no 10.stars
‘there are no stars’ (AK-E)

626. *ndoóndwa ntópo*

ndondwa ntopo
10.stars there.is.no
‘there are no stars’ (AK-E)

627. *oómba kulwii ntópó*

omba ku- lwii ntopo
 9/10.fish 17NCP- 11.river there.is.no
 ‘There is no fish in the river.’ (AK-E)

628. *ntópó oomba kulwii*

ntopo omba ku- lwii
 there.is.no 9/10.fish 17NCP- 11.river
 ‘There is no fish in the river.’ (AK-E)

629. *kutópó kilibe*

ku- topo kilibe
 17NCP- without 7.thing
 ‘there is nothing (there)’ (AK-E)

The adjective *-topo* can also be used as a negative copula for persons, to express ‘not have’, in line with the construction used with other adjectives (section 12.1). The subject marker is followed by a vowel *a*, followed in turn by the adjective, inflected for number.

Table 66 The use of *-topo* to express ‘not have’

person	‘without’	Underlying	person	‘without’	Underlying
1SG	<i>naa ntópo</i>	/ni- a mu-topo/	1PL	<i>twa atópo</i>	/tu- a a-topo/
2SG	<i>waa ntópo</i>	/u- a mu-topo/	2PL	<i>mwa atópo</i>	/mu- a a-topo/
class 1	<i>ntópo</i>	/mu-topo/	class 2	<i>atópo</i>	/a-topo/

630. *atópó kilibe*

a- topo kilibe
 2NCP- without 7.thing
 ‘They don’t have anything.’ (AK-E)

12.4 Summary

This chapter has shown how copular and existential constructions are formed in Ndengeleko. Such constructions are often expressed by means of the verb ‘to be’.

The Ndengeleko language exhibits interesting negated non-verbal constructions formed with the adjective *-topo*, sometimes preceded by a copula-like morpheme *a*.

13. *Summary and directions for further research*

The aim of this thesis has been to contribute to the knowledge of Ndengeleko, a Bantu language of the Rufiji region of Tanzania. The fact that the language was previously undescribed, that it is being influenced by the dominant language Swahili, and that most speakers use the language in limited domains, has contributed to the challenges of fieldwork and analysis. Within the limits of time, the thesis therefore focusses on the basic building blocks of language: the phonology and morphology.

I have argued in Chapter 1 that there is no distinct language variety ‘Rufiji’; rather, Ndengeleko and Rufiji are two names for the same language. The most closely related language variety is Matuumbi. Chapter 2 showed that, although there is still a considerable number of speakers, the fact that the language has low status and that it is not being transmitted to the next generation gives us reason to conclude that the Ndengeleko language is endangered.

The phonology is characterised by a relatively modest phoneme inventory, with 12 consonant and 7 vowel phonemes. The Ndengeleko phoneme inventory closely resembles the system reconstructed for Proto-Bantu. Moreover, as in the reconstructed proto-language, Ndengeleko distinguishes between short and long vowels. In this agglutinating Bantu language, morpho-phonological processes are important and blur the morpheme boundaries, especially where the various *mu-* and *ni-* prefixes are concerned. The resulting nasal and consonant combinations are analysed as sequences in this work, not as unit segments. The phonotactics of the language have been affected by the historical processes of spirantisation and consonant loss. This has resulted in many vowel-initial stems, and here again morpho-phonology plays a role when vowels meet across morpheme boundaries. Depending on the quality of the vowels involved, the outcomes are long vowels, vowel sequences and gliding, as well as assimilation in some cases. Long vowels can also be shortened, depending on the context. The interplay of underlying long vowels, lengthening and shortening is a fascinating area for further study.

In the nominal morphology, we find such typical Bantu traits as an elaborate noun class system, with 18 noun classes, and the possibility of deriving meanings by using noun stems in different classes. Apart from the regular system of pairing such noun classes into singular-plural combinations, alternative plurals are accepted for many nouns, leading to a striking flexibility in the pairings of singular and plural classes.

Modifying adnominals follow the noun, apart from the demonstrative which can also precede the noun. Further research is needed in order to understand the semantic and pragmatic properties of the numerous demonstratives in Ndengeleko.

Adjectives are few and are mainly from the semantic types ‘dimension’ and ‘physical property’. There are three adjectives for colour: black, white and red. The different modifiers, as well as the predicate, are in agreement with the noun class of the head noun. Apart from this grammatical agreement, there is a second classification in Ndengeleko, whereby animacy plays a role. In general, all animate nouns take agreement in classes 1 and 2, unless these animate nouns are derived diminutives or augmentatives. Interestingly, plural nouns with animal referents in classes 4 and 6 vary between formal and semantic agreement.

Adnominals do not show agreement with the class of a locative, but with the noun class of the noun to which the locative prefix is added. Locatives can be the preposed subject of the phrase; this is called locative inversion.

The Ndengeleko verb has a complex structure, whereby a verb root can be extended by means of suffixes to form new verbs. Such extensions derive, for instance, causative and applicative verbs, and alter the argument structure of the verb. Inflection concerns, for example, the marking of the subject – obligatorily on all inflected verb forms – on the verb. As a pro-drop language, subject and object NPs and pronouns are mostly omitted. The object is optionally marked. Object marking is an area of Ndengeleko grammar which needs further study.

In the inflectional verbal morphology we also find an abundance of tense-aspect-mood categories, which appear to be largely aspectual. There is a prefix *a-/e-* which signals deictic distance; together with a verb stem and the final vowel *-a* it forms the future, and together with a perfective stem it forms the past. The language distinguishes between conjoint and disjoint forms in certain of the TAM categories. The conjoint form implies that the following element is focussed to some extent, as opposed to the disjoint form where the verbal action itself is in focus. The present, the (past) imperfective and the habitual categories share a disjoint morpheme with the form *and-/end-*. The semantics of the TAM-system in combination with the conjoint/disjoint distinction is an interesting topic for further investigation. In the perfective, there are different forms of the suffix depending on the structure of the verb stem in question. Canonical verb stems select *-ike*, which is an unusual form of the perfective suffix in a Bantu comparative perspective. Also in the perfective, there appears to be a distinction between conjoint and disjoint, but a conclusive picture has so far not been obtained.

Ndengeleko speakers frequently borrow words from Swahili, and also code-switch to that language. The Swahili influence is noticeable in many aspects of the

language. For instance, several speakers do not make a distinction between the first degree and the second degree high vowels, or are inconsistent in their use of the vowels. It is expected that this will lead to a five vowel system much like that of Swahili. Moreover, we note interference from Swahili in the noun class system, where the Swahili class 8 *vi-* prefix replaces the Ndengeleko prefix *i-* in a number of examples in the data, and where the ‘wrong’ class is sometimes used for diminutive derivation. TAM prefixes from Swahili are also heard in the language, especially the present progressive *na-*. The Ndengeleko speakers have been bilingual in Ndengeleko and Swahili for decades. An analysis of the language contact situation and the influence of the Swahili language on Ndengeleko would be an interesting project to embark on.

Although there is clearly a language shift going on in the Ndengeleko speaking area, many speakers are interested in using the language and in preserving it for future generations. It is my hope that this thesis will increase their pride in their language and will contribute towards the use and further documentation of Ndengeleko.

Summary in Swedish

Denna avhandling beskriver Ndengelekospråkets fonologi samt morfologi i substantivfrasen och verbfrasen. Ndengeleko är ett bantuspråk som talas av ca 72 000 personer i sydöstra Tanzania. Det har inte tidigare varit föremål för någon grundlig språklig studie. Analysen är baserad på författarens egna inspelningar som transkriberats och översatts till Swahili. Arbetet med intervjuerna genomfördes under flera perioder i Rufijiregionen, med olika talare av språket. Dessutom redovisas en sociolingvistisk undersökning av Ndengelekospråkets status och utbredning. Undersökningen bygger på en enkät som fyllts i av skolbarn samt på intervjuer med personer på olika platser. Resultatet visar att Ndengelekospråket uppfyller många av UNESCOs kriterier på att vara ett hotat språk. Särskilt oroväckande är att språket bara förs över till nästa generation i mycket begränsad omfattning.

Ndengelekospråket använder sig av sju vokaler, som kan vara korta eller långa, och har ett relativt begränsat antal konsonanter. Ndengelekos olika fonem liknar i hög grad de som har rekonstruerats för proto-Bantu. Språkets fonotaktiska struktur har påverkats av en historisk ljudändring som kallas *spirantisation* och som har lett till en riklig förekomst av vokalinledda stavelser. Dessa sammansmälter ofta med vokalfinala prefix med olika realisering beroende på vilka vokaler som är inblandade. Morfo-fonologiska processer ligger även bakom de frekventa nasal-obstruent- och nasal-nasal-kombinationerna i Ndengeleko. Nasal-obstruent kombinationerna analyseras som sekvenser snarare än segment i denna avhandling.

Substantiven i Ndengeleko delas in i nominalklasser, vilket är typiskt för bantuspråk. I Ndengeleko finns 18 sådana klasser, varav åtta används för referenter i singularis, fem för referenter i pluralis, en innefattar abstrakta substantiv och en infinitiv. Dessutom finns tre lokativa klasser som refererar till platser. Vissa klasser används till att avleda ord, till exempel diminutiv.

Klasserna paras ihop i singular-plural-kombinationer enligt ett regelbundet mönster. Dessutom kan man konstatera att vissa pluralklasser i Ndengeleko kan användas som plural till nästan vilken singularklass som helst. Detta gör att antalet singular-plural-kombinationer i språket är ovanligt högt. Klassen som ett substantiv tillhör styr valet av kongruensmarkör i nominalfrasen samt i predikatet. Viktigare än denna princip är dock indelningen i animata och icke-animata substantiv. Substantiv som refererar till människor finns framförallt i klasserna 1 och 2. Sådana substantiv kan även finnas i andra klasser, men tar då ändå

kongruensmarkörer från klass 1 och 2. Detta gäller även substantiv som refererar till djur, men där finns fler undantag. För båda kategorierna gäller att avledda diminutiva och augmentativa ord är undantagna denna regel. För dessa avledda ord tar kongruensen bara hänsyn till grammatiken, inte till semantiken.

I nominalfrasen står bestämmningar normalt efter substantivet, förutom vissa demonstrativa pronomen som har en friare placering. Ndengeko har ett komplext system för att markera var referenterna befinner sig med två uttryck som refererar till en plats nära och två som refererar till en plats längre bort. De semantiska skillnaderna mellan dessa uttryck behöver utredas vidare. Ndengeleko har få adjektiv; mindre än 20 har påträffats i materialet. Egenskaper uttrycks snarare med verb eller med andra substantiv. Språket har bara tre adjektiv som anger färg; svart (mörkt), vitt (ljus) och rött.

Den agglutinerande morfologin spelar en stor roll i språkets verbfras och morfemen följer varandra i en viss fast ordning. Verb kan avledas från andra verb genom suffix som läggs till verbstammen. Många av dessa suffix är lexikaliserade; andra är produktiva och kan användas på ett stort antal verb. Subjektet markeras alltid på verbet genom ett prefix, förutom i imperativ. Ndengeleko är ett pro-drop-språk så det behövs inget substantiv eller pronomen som refererar till subjektet. Även objektet kan markeras på verbet genom ett prefix som följer subjektprefixet. Detta är inte obligatoriskt, inte heller för animata objekt vilket annars är vanligt i bantuspråk.

Verbet böjs efter tempus och aspekt. Ndengelekospråket analyseras i denna avhandling som huvudsakligen aspektuellt, eftersom det inte finns separata morfem som uttrycker dåtid och framtid. I stället används ett morfem som signalerar avstånd i tid. Det morfemet, i kombination med den korta presensformen, indikerar framtid. Samma morfem tillsammans med en perfektiv verbform indikerar dåtid.

I presens och imperfektiv skiljer språket mellan två olika former. Den ena används när det som följer verbet är i fokus, till exempel ett objekt. Den andra formen, som lägger till ett morfem och därigenom är längre, används när själva verbet är i fokus. Samspelet mellan tempus, aspekt och fokus är komplicerat och är ett område som lämpar sig väl för vidare analys av Ndengelekospråket.

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