# Koromfe

John R. Rennison

# Koromfe

Strong linguistic and ecological pressures are gradually pushing Koromfe, a local language spoken in the north of Burkina Faso, West Africa, towards extinction. Spoken by, at the most, 10,000 people, Koromfe has defied political and cultural domination by other local languages.

Few other researchers have studied Koromfe in such depth and this is the first detailed linguistical analysis of its kind, consequently providing data which sheds light on many previously unanswered questions concerning both Koromfe and genetic and general linguistic issues. The information which constitutes this Descriptive Grammar is based on field work conducted by the author. As a Gur or Voltaic language, the author shows how Koromfe shares many phonological, lexical, morphological and syntactic affinities with other such languages.

**John R. Rennison** is currently Senior Lecturer in Linguistics at the University of Vienna. He has worked extensively on the theory of phonology and morphology, and has worked on Koromfe for sixteen years.

# Descriptive Grammars
## Series Editor: Bernard Comrie
*University of Southern California*

# Editorial statement

Until quite recently, work on theoretical linguistics and work on language description proceeded almost entirely in isolation from one another. Work on theoretical linguistics, especially in syntax, concentrated primarily on English, and its results were felt to be inapplicable to those interested in describing other languages. Work on describing individual languages was almost deliberately isolationist, with the development of a different framework and terminology for each language or language group, and no feeding of the achievements of language description into linguistic theory. Within the last few years, however, a major rapprochement has taken place between theoretical and descriptive linguistics. In particular, the rise of language typology and the study of language universals have produced a large number of theoreticians who require accurate, well-formulated descriptive data from a wide range of languages, and have shown descriptive linguists that they can both derive benefit from and contribute to the development of linguistic theory. Even within generative syntax, long the bastion of linguistic anglo-centrism, there is an increased interest in the relation between syntactic theory and a wide range of language types.

For a really fruitful interaction between theoretical and descriptive linguistics, it is essential that descriptions of different languages should be comparable. The *Questionnaire* of the present series (originally published as *Lingua*, vol. 42 (1977), no. 1) provides a framework for the description of a language that is (a) sufficiently comprehensive to cover the major structures of any language that are likely to be of theoretical interest; (b) sufficiently explicit to make cross-language comparisons a feasible undertaking (in particular, through the detailed numbering key); and (c) sufficiently flexible to encompass the range of variety that is found in human language. The volumes that were published in the predecessor to the present series, the *Lingua Descriptive Studies* (now available from Routledge), succeeded in bridging the gap between theory and description: authors include both theoreticians who are also interested in description and field workers with an interest in theory.

*Editorial statement*

The aim of the Descriptive Grammars is thus to provide descriptions of a wide range of languages according to the format set out in the *Questionnaire*. Each language will be covered in a single volume. The first priority of the series is grammars of languages for which detailed descriptions are not at present available. However, the series will also encompass descriptions of better-known languages with the series framework providing more detailed descriptions of such languages than are currently available (as with the monographs on West Greenlandic and Kannada).

*Bernard Comrie*

# Koromfe

John R. Rennison

For Gerlinde, Barbara, Jennifer, Christina and Julia
because I love them

and for the Koromba
with deep respect.

*This page intentionally left blank*

# Contents

# Contents

*Contents*

Contents

# Contents

# Contents

# Contents

# Contents

# Contents

# Contents

*This page intentionally left blank*

# Preface

This book is the result of 16 years of work on Koromfe, alongside other linguistic interests. It would not have been possible without the active and passive support of several people. I would especially like to thank my family, who increased during those years from 2 to 5 (other) members, for their active interest in the early stages and for their patience during the final stages.

Annemarie Schweeger-Hefel (†) put her house in Tulfes, Tyrol at my disposal for my first informant sessions and provided me with background information on the culture of the Koromba without which I would have been lost.

A grammar of this kind is never 'finished', especially for a perfectionist like myself, and writing it has raised many further questions which I wish I had the time and resources to try to answer. I thank my informants for their help and Bernard Comrie, the series editor, for his extremely attentive inspection of the manuscript and suggestions for revisions, which were always to the point and well-received. Special thanks go to Oskar Pfeiffer for his diligent proofreading of the manuscript. Of course, the entire responsibility for what is written here is my own, and I absolve all others from any part of the blame for the faults that may remain.

I would welcome feedback from anyone working on related languages (e-mail: *john@ling.univie.ac.at*).

Vienna, October 1996

(2)  *Maps of the Koromfe-speaking area, based on Schweeger-Hefel & Staude*
     *(1972) and Prost (1980).*
     a)  *Africa and Burkina Faso (capital Ouagadougou), with a box indicating the*
         *location of map b).*
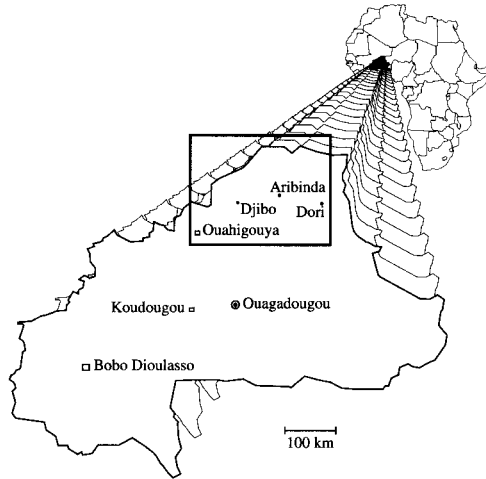


     b)  *The area where Koromfe is spoken (alongside other indigenous languages).*
         *The dots for Mengao and Aribinda are enlarged for better visibility, and*
         *therefore do not correspond to their actual size.)*
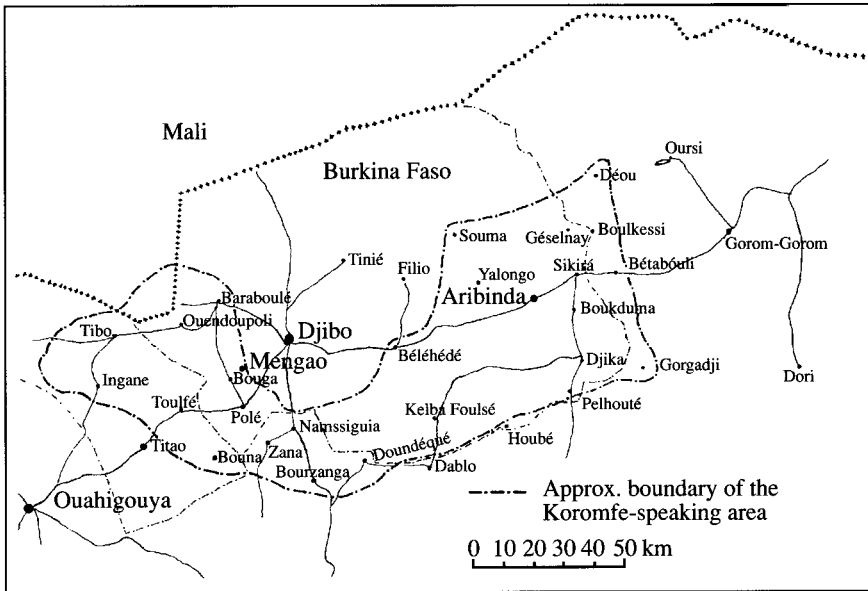
# Introduction

## The language

The name of the language described here is pronounced [koromfe] by its speakers. Since the vowels [u,ʊ,o] are distinctive, the printed names 'Kurumfe', 'Kurumfé' etc. which have been used in the past are inaccurate: I have therefore taken the liberty of replacing the printed name of the language with the more accurate form 'Koromfe'. The same phonetic inaccuracy applies to the printed name of the speakers, who call themselves [koromdo] (SG.) / [korombʌ] (PL.). I use the printed forms 'Koromdo' and 'Koromba' respectively. The regional variety described here is spoken in the village of Mengao.

## Speakers and genetic affiliation

Koromfe is a small, local language spoken in the north of Burkina Faso (formerly Upper Volta) in a U-shaped area which surrounds the town of Djibo to the west, south and east (see the maps in (1)). Other local languages are also spoken in this area, especially Mòoré (a Gur language), Fulfulde (Fula-Wolof) and Songhai (Nilo-Saharan). This is a part of the Sahel that is rapidly declining in population because of the rapid and unavoidable encroachment of the Sahara. In the area around the village of Mengao there are very few trees left, and it is only a matter of time until these, too, disappear forever. No newly planted tree can grow roots long enough to reach water before drying up; artificially watered trees rarely survive. This monograph is therefore a documentation of a language that is dying — not only from linguistic pressure (see below) but from ecological pressure. The Koromba who take the road south are unlikely to preserve their language for much longer than the present generation; and in Burkina Faso, one generation is about half as long as in Western Europe.

The area immediately surrounding Mengao is known as [lorom] (printed name 'Lurum'), and is documented ethnologically in Schweeger-Hefel & Staude (1972). The religious affiliation of the Koromba is given in the SIL Ethnologue database, based on Grimes (1992), as 70% traditional religion, 26% Muslim and 4% Christian. My informants think that

1

the percentage of Muslims is increasing and of adherents to the 'traditional religion' decreasing.

Koromfe is a Gur or Voltaic language, and, contrary to the judgement of Prost (1980) and the ethno-historical claims of Schweeger-Hefel & Staude (1972), it has clear phonological, lexical, morphological and syntactic affinities with the other Gur languages of that area — for example with Mòoré, which is the most widely-spoken Gur language (with several million speakers), and which enjoys high prestige among Koromfe speakers, most of whom also actively speak Mòoré. Manessy (1978) considered Koromfe to be an independent branch of Central Gur. The SIL Ethnologue database gives the exhaustive genetic affiliation: Niger-Congo, Atlantic-Congo, Volta-Congo, North, Gur, Central, Northern, Koromfe, and claims that there are some 100,000 Koromfe speakers. My own estimate, and that of Prost (1980) is far lower — at the most 10.000, though possibly as few as 2.000. Whatever the number, it is rapidly declining, and may reach zero within not much more than my lifetime.

The noun class system of Koromfe shows a striking resemblance to that of the Bantu languages, but uses suffixes instead of prefixes. I think that this resemblance is more than accidental.[1]

Prost (1980) says that there are very few Mòoré words in Koromfe. In my own experience this is untrue, both for obvious loans (see below on suffix vowels) and for cognates such as *kɔ̃brɛ* 'bone' (directly from Mòoré) vs. *kʊbrɛ* (Koromfe). The position of Schweeger-Hefel & Staude (1972) is that Koromfe is gradually being 'corrupted' by Mòoré infiltration. For them, Koromfe was the 'original' language of the area now inhabited by the Koromba, and they therefore never seriously entertained the idea that Mòoré and Koromfe are descended from a common ancestor. One problem for all three researchers was the identification of the inflectional suffixes, particularly the nasalized noun class suffixes, like the [Vŋ] variant of the *-gʊ* suffix (where V is a harmonized vowel). This superficial phonetic difference blurs the great morphological similarity between the inflections of Koromfe and those of Mòoré and other Gur languages.

## Previous research

Few other researchers have worked on Koromfe, and only one of them (Hans Mukarovsky, Professor of African Studies at the University of Vienna) was primarily a linguist.

Schweeger-Hefel & Mukarovsky (1961) is a first tentative analysis of the phonology and morphology of the language. Schweeger-Hefel & Staude (1972) is an ethnological study which includes a vocabulary (without details of the system of transcription used) but no other linguistically relevant information. Prost (1980) is a grammatical sketch of the language, including a few translated texts. It is difficult to use because the transcription is unreliable. None of these researchers discovered (or was prepared to accept) the great variety of phonetic vowels that exist. Nevertheless, both Schweeger-Hefel & Staude (1972) and Prost (1980) are interpretable to a large extent, and contribute to the general picture of the language.

My own research directly relating to Koromfe has been published in the form of a Koromfe-French dictionary (Rennison, 1986a) and a collection of texts translated into French (Rennison, 1986b). The inflectional categories in the verbs have been revised in the present monograph due to later research on tense and aspect, and a few minor phonetic details in the dictionary are not quite accurate.[2] Koromfe has also been the object of some of my more theoretical linguistic (particularly phonological) research; the relevant articles are given in the bibliography.

One point on which all researchers agree is that Koromfe has no tones, even though by rights it should have. This point is brought home by the anecdote about a whistling bird (A. Schweeger-Hefel, p.c.) who, the informant said, whistled a sentence in Mòoré. When asked what the bird was whistling in Koromfe, he replied: 'Nothing.'

# Field work

The field work which I carried out as the basis for this grammar began in 1980, when I spent 2 months 'interned' with Ousséini Badini in Tulfes (Tyrol, Austria), in the house of Annemarie Schweeger-Hefel, intending to collect, edit and publish the notes of the late Wilhelm Staude (whom I never met), and to transcribe and translate some of his recordings, archived by the Phonogrammarchiv (Sound Archives) of the Austrian Academy of Sciences. The former undertaking proved to be impossible because Staude's transcriptions were not sufficiently accurate. Instead, we translated the texts published as Rennison (1986b), then started a new dictionary from scratch, though based on the cultural terms collected by Staude,

and on Schweeger-Hefel & Staude (1972). This was the basis for Rennison (1986b).

Then, in the early 1980's, Annemarie Schweeger-Hefel discovered a Koromfe speaker in Vienna (an unimaginable piece of luck) — Kemde Abdoul Malick, who came to weekly informant sessions at my home over several years, and helped me finish the dictionary and texts, and provided the first information specifically elicited for the present grammar.

In February 1985 I made my (so far) only trip to Africa, namely to Ouagadougou, the capital of Burkina Faso, where I worked intensively for four weeks with Souleymane Sawadogo, who provided the rest of the information for this grammar, together with Ousséini and Kemde, who were also there for occasional consultation. I should perhaps mention that travelling to Mengao, the village whose variety of Koromfe is described here, is not easy, and my debt to those who did so to make the recordings which I used is high.

This grammar is therefore based on field work with three speakers only, and was never carried out in the village of Mengao. However, the tape recordings made there by Wilhelm Staude and Annemarie Schweeger-Hefel were also used and interpreted (with the help of my three informants), so that the number of speakers encompassed by my research is somewhat larger. Nevertheless, I admit that a study of this kind is less than complete without data on actual communication, especially of a day-to-day nature; this is particularly noticeable when it comes to ideophones and interjections in §4 below.

**'Dialects'**

The degree of divergence between the regional variants of Koromfe seems to be very small, and I therefore have no doubt that the language data which I collected is as homogeneous as linguistic data of this kind can be. Obviously, variations due to casualness and speech tempo are immanent in all language systems, and are also found in Koromfe. On the other hand, the kind of sociolinguistic variation corresponding to 'register' or 'dialect vs. standard language' in European languages is entirely missing in my corpus (barring polite plurals and lexical choice) — probably due to the field-work setting. A comparative word list, recorded by Wilhelm Staude, of Koromfe spoken in Mengao (in the west of the Koromfe-speaking area) with Aribinda (in the extreme north-east of the area) shows no significant

differences beyond a few different choices of lexical items by the Aribinda informant (mostly words which also exist in Mengao). The 'dialectological' data of Prost (1980: 107–110) shows the same pattern: no linguistically significant dialectal variation.[3]

## Informants

Precise data on my informants was not always available: none of them knew their precise date of birth.

**Ousséini Badini** was born and raised in Mengao, where he received primary school education. His parents, grandparents and all known ancestors came from Mengao. At the age of about 20 he went to Ouagadougou, where he works for the state-owned cotton monopoly. He was about 25 years old in 1980, when I worked with him.

**Kemde Abdoul Malick** was also born and raised in Mengao, where he received primary school education. His mother is a Koromba, with all known ancestors from Mengao, but his father is a Mossi with relatives in Ouagadougou. This enabled Kemde to receive further professional training in Vienna during the period when I worked with him. His age in 1982 was about 25 years. Kemde was also able to provide some invaluable data on Mòoré, since it was the language of his father. After returning to Burkina Faso in 1984 Kemde taught at the Austrian school in Ouagadougou.

**Souleymane Sawadogo** was born and raised in Donombéné, a smaller village north of Mengao. He received primary school education in Mengao and later trained as a primary school teacher (though I do not know where). He taught at the primary school in Mengao up to our informant sessions in 1985, when he was on leave in Ouagadougou for a few months. He later returned to Mengao. In 1985 he was about 25 years old (i.e. the youngest of my informants, by a few years).

All three informants spoke excellent French, though of course lexically and idiomatically West African French. Kemde also spoke very good German. As a slight token of their competence in French: All three used front rounded vowels in the right places, which is by no means usual in Burkina Faso. They were all three very quick to learn the linguistic categories that I was interested in, and developed an interest in the ongoing linguistic description, so that they were often able to volunteer relevant examples, counterexamples, irregularities etc. which I might otherwise not

have discovered. I thank them sincerely for their help in producing this grammar of their language. The faults that remain can only be my own.

## Presentation of the data

### Transcription

Koromfe has no written form, standardized or otherwise. The transcription used here (apart from §3, where everything is phonetically transcribed) is my own, and is phonetically/phonemically oriented. There is therefore no capitalization or punctuation in the examples given here apart from horizontal dashes to indicate a pause.

The only deviations from IPA transcription are given in the following list (and cf. §3.1.1–2):

- *g* is used for all realizations of /g/, including the automatic allophone [ɣ]; for /d/ on the other hand, the allophones [d] and [r] are distinguished.
- The automatic nasal allophones of *h* and *w* ([h̃] and [w̃] respectively) are never marked; the nasal allophone of *j* is transcribed *j̃* because these are the spurious 'palatal nasal stops' noted by other researchers.
- The vowel schwa ([ə]) occurs variably according to tempo and casualness, and is transcribed here as it occurred in the original utterance.
- Vowels given in parentheses are realized phonetically as schwa or zero; the form in parentheses would be audible in a phrase-final or pre-pausal realization of the word.
- Syllabic nasals are not specially marked because a) they can automatically be identified by the context in which they occur (post-pausally before a consonant), and b) they are non-syllabic in medial positions.
- The 2nd person singular clitic pronoun is transcribed only *m*, *n* or *ŋ*, and not in the full spectrum of its other automatic variants.

### Choice of examples

The example words, phrases and sentences given in this grammar were chosen according to the scale of preference given here (which I consider to reflect the naturalness of the language samples):

1. texts recorded by Wilhelm Staude (as interpreted by my informants);
2. data elicited by myself from my informants;
3. other sources (always explicitly mentioned).

I have tried to use as much material of the first type as possible, because I am convinced that it is the least influenced by linguistic methodology. This means that sometimes the presentation has rough edges or incomplete paradigms.

**Interlinear glosses and abbreviations**

The interlinear word-for-word glosses give (one of) the relevant meaning(s) of the word in normal type (if there is one) and grammatical information in SMALL CAPITALS. The use of a plus sign, as in '+ SG.' means that the morpheme SG. is replaceable by some other morpheme, whereas the use of parentheses, as in '(SG.)' means that the word is used in the category SG., but does not necessarily have any other inflectional forms. Other information is given in parentheses, e.g. (=RECIPROCAL) means 'is used as a reciprocal'. Such information which is not lexical or morphological in lowercase italics, e.g. (*proper name*), (*elided*), and should be self-explanatory. The glosses of UNMARKED form of verbs have no special abbreviation (since no morpheme is added to the bare verb stem) but just the lexical gloss, e.g. *bɛ* 'come' means 'the UNMARKED form of "come"'. All other verb forms are specifically mentioned in the glosses, e.g. *bɛnɛ* 'come + PAST'.

The abbreviations used in the interlinear glosses are given in (2) below. Note that a missing bottom line of a table means that it is continued on the next page, and a table with no number or caption is a continuation of the table on the previous page.

(2)    *Abbreviations used in the interlinear glosses, diagrams and tables*

| abbr. | meaning | abbr. | meaning |
|---|---|---|---|
| ? | uncertain | N | noun |
| ?? | unknown | NEG. | negative |
| 1PL. | 1st person plural | NOM. | nominal |
| 1SG. | 1st person singular | NON-HUM. | non-human |
| 2PL. | 2nd person plural | NON-SPEC. | non-specific |
| 2SG. | 2nd person singular | NP | noun phrase |
| 3PL. | 3rd person plural | OBJ. | object |
| 3SG. | 3rd person singular | PARTIC. | participial (adjective) |
| ADJ. | adjective | PL. | plural |
| ADV. | adverb | POSS. | possessive |
| ART. | article | POSTCLIT. | postclitic |
| AUX. | auxiliary | POSTNOM. | postnominal |
| CL. | class suffix | POSTPOS. | postposition |
| COLL. | collective | PP | pre-/postpositional phrase |
| CONJ. | conjunction | PREP. | preposition |
| DESCR. | descriptive (adjective) | PROG. | progressive aspect |
| DEMONST. | demonstrative | PRON. | pronoun |
| DET. | determiner | QU. | question word |
| DIMIN. | diminutive | QUANT. | quantifier |
| DISJ. | disjunctive (free word form) | QUEST. | question particle |
| DUR. | durative aspect | REL. | relative (pronoun or particle) |
| EMPH. | emphatic particle | SENT. | sentential |
| EXCL. | exclamation | SINGULAT. | singulative |
| FUT. | Future auxiliary use | SG. | singular |
| HUM. | Human | TRANS. | transitive |
| IDEOPH. | ideophone | UNM. | unmarked verb form |
| INDECL. | indeclinable | V | vowel whose quality is determined by vowel harmony |
| INTERROG. | interrogative | v | verb |
| INTRANS. | intransitive | VP | verb phrase |

# Notes to the Introduction

[1]  Half in fun, I reconstruct the word Bantu itself (*ba-ntu* 'people') as being the Koromfe word *dɔɔ-ba* 'peasants'. All Koromba are peasants. The stem *dɔ(ɔ)* probably historically meant 'being' in Koromfe, and can be found in *dɔɔ*, PL. *dɔɔfi* 'animal' and in *dɔfrɛ*, PL. *dɔfia* 'god'. The *ba* plural morpheme of the human noun class is identical in Bantu languages and Koromfe.

[2]  For example, I did not distinguish 'epenthetic' from lexical final vowels, and had some other full vowels for what I now know are schwas.

[3]  In this context I must add that I have worked extensively on dialectal variation in (one variety of Austrian) German, cf. Rennison (1981), and had hoped to find something similar in Koromfe — but did not. Some differences in the numerals described by Prost (1980) are discussed in §2.1.6 below.

*This page intentionally left blank*

# 1 Syntax

## 1.1 General questions

### 1.1.1 Sentence-types

#### 1.1.1.1 Direct and indirect speech

Speech that is quoted, whether directly or indirectly, is usually introduced
with the conjunction *ke*, which corresponds roughly to English *that* (and
also *because*). Rarely, both direct and indirect quoted speech can be found
without an introductory *ke*. It seems that the omission of *ke* is facilitated
by a) change of the narrator's current rôle (e.g. to an animal's voice in a
fable), b) change of the pace of narration ('excitement'), and c) the pres-
ence of another *ke* within the quoted speech itself. Examples are given in
(3)–(4). Note that <u>underlining</u> is used here in word-for-word glosses to
mark both directly and indirectly quoted speech.

(3)　 kɔ　a　jemdi　　　bole　ke　　hãĩ
　　　then　ART.　hippopotamus + SG.　say + PAST　that (CONJ.)　EXCL.

　　　ase　　la　da　ŋkɔ　　　nɛŋ　n　　sɪb　jereŋa
　　　<u>what (QU.)</u>　<u>EMPH.</u>　<u>win</u>　<u>DISJ. PRON. 2SG.</u>　<u>thus</u>　<u>PRON. 2SG.</u>　<u>die</u>　<u>here</u>

　　　n　　　josə　nɛŋ
　　　<u>PRON. 2SG</u>　<u>rot</u>　<u>thus</u>

　　　'Then Hippo said "Hey! What's happened to you to make you die here and rot
　　　like that?"'

(4)　kɔ　(a)[1]　　　jemdi　　　mɔ̃　bole　də
　　　then　ART. (*elided*)　hippopotamus + SG.　also　say + PAST　PRON. 3SG. HUM.

　　　zakə　mɔ̃　ke　　　mə　　　bɛ　la　　mə　　　bi
　　　<u>cheat</u>　<u>also</u>　<u>that (CONJ.)</u>　<u>PRON. 1SG.</u>　<u>come</u>　<u>with (CONJ.)</u>　<u>PRON. 1SG.</u>　<u>child</u>

　　　ja　də　　　　ja　verə　selle　də　　　　pa
　　　<u>EMPH.</u>　<u>PRON. 3SG. HUM.</u>　<u>go</u>　<u>raise</u>　<u>outdoors</u>　<u>PRON. 3SG. HUM.</u>　<u>give.</u>

　　　'Then Hippo also said: "He cheated me too, telling me to bring my child, and
　　　saying that he would raise him outdoors (=on land), (and) he would give (him
　　　back to me)."'

In sentence (3) the conjunction *ke* is used immediately before an ex-
clamation which is a part of the directly quoted speech; in (4), on the other
hand, there is no *ke* even though the immediately following sentence is a
part of Hippo's speech (being directly quoted by the narrator). The *ke* of

11

the following clause is analysable as introducing either embedded indirectly quoted speech (what Rabbit had said to Hippo), or an indirect imperative (*'I ought to bring my child'*).

The quoted speech itself is not marked morphologically or syntactically except by the usual 'deictic shifts' of pronouns, adverbials, etc. that are made in indirect speech. No significant changes of the verb form take place in directly or indirectly quoted speech.

### 1.1.1.2 Interrogative sentences

The typical intonation pattern for all types of question in Koromfe is not normally distinct from that of statements (cf. §3.3.4.1.1–2 below), i.e. a high pitch at the beginning of the sentence, followed by a gradual fall of pitch up to the end of the question. This means that in general all question words at the beginning of a sentence are on a high pitch, and all yes-no question particles at the end of a sentence have a low pitch. In addition, the high pitch on the sentence-initial wh-element remains at a constant high pitch on the whole syntactic constituent.

Optionally, the sentence-final question particle can be on a high pitch or lengthened, in which case the question is especially emphasized.

### 1.1.1.2.1 Yes-no questions

### 1.1.1.2.1.1 Neutral

Neutral yes-no questions in Koromfe are formed by adding a sentence-final question particle (glossed as QUEST. below) to a (positive) declarative sentence. There is no inversion or other change in the linear order of the sentence constituents. A set of typical declarative sentences with varying numbers and types of noun phrases are given in (5)–(10), and the corresponding neutral yes-no questions in (11)–(16).

(5)  a       vɛŋa   koŋ                        nɛ̃naa
     ART.   rain   DET. NON-HUM. SG.   defecate + PROG.

     'It is raining.' *(Lit.:* 'The rain is defecating/urinating.'*)*[2]

(6)  a       vaga      koŋ                        bɛ
     ART.   dog + SG.   DET. NON-HUM. SG.   come

     'The dog came/comes (back).'

(7)    n           zɔmmaa      a    mũĩ
        PRON. 2SG.   want + PROG.   ART.   rice

        'You want some rice.'

(8)    də              bɛllaa      sã
        PRON. 3SG. HUM.   come + PROG.   tomorrow

        'He will come tomorrow.'

(9)    a    bɔrɔ      hoŋ           pa    də             kɛ̃ɔ̃       a
        ART.   man + SG.   DET. HUM. SG.   give   PRON. 3SG. HUM.   woman + SG.   ART.

        fãĩ
        porridge

        'The man gave/gives the porridge to his wife.'

(10)   a    kɛ̃ɔ̃        hoŋ           dogom   a     nɛmmɔ̃   koŋ
        ART.   woman + SG.   DET. HUM. SG.   cut     ART.   meat    DET. NON-HUM. SG.

        la    a    gabrɛ
        with   ART.   knife + SG.

        'The woman cuts the meat with the knife.'

In sentences (11)–(16) the question particle *bɪ* is shown as containing a short vowel, although the vowel is usually lengthened phonetically — often to a quite considerable extent. However, I consider this lengthening to be a prosodic manifestation (or at least accompaniment) of question intonation; lengthening does not always take place, and is never distinctive.

(11)   a    vɛŋa   koŋ               nɛ̃naa         bɪ
        ART.   rain   DET. NON-HUM. SG.   defecate + PROG.   QUEST.

        'Is it raining?'

(12)   a    vaga      koŋ            bɛ   bɪ
        ART.   dog + SG.   DET. NON-HUM. SG.   come   QUEST.

        'Has the dog come (back)?'

(13)   n           zɔmmaa      a    mũĩ   bɪ
        PRON. 2SG.   want + PROG.   ART.   rice   QUEST.

        'Do you want some rice?'

(14) də               bɛllaa      sã       bɪ
     PRON. 3SG. HUM.   come + PROG.   tomorrow   QUEST.
     'Will he come tomorrow?'

(15) a     bɔrɔ      hoŋ        pa   də            kɛ̃ɔ̃       a
     ART.   man + SG.   DET. HUM. SG.   give   PRON. 3SG. HUM.   woman + SG.   ART.

     fãĩ     bɪ
     porridge   QUEST.

     'Did the man give the porridge to his wife?'

(16) a     kɛ̃ɔ̃       hoŋ          dogom   a     nɛmmɔ̃  koŋ
     ART.   woman + SG.   DET. HUM. SG.   cut     ART.   meat   DET. NON-HUM. SG.

     la     a     gabrɛ     bɪ
     with   ART.   knife + SG.   QUEST.

     'Did the woman cut the meat with the knife?'

### 1.1.1.2.1.2 Leading

### 1.1.1.2.1.2.1 Expecting the answer yes

The yes-no questions suggesting a positive response are formed syntactically in an identical way to the neutral yes-no questions (i.e. positive declarative sentence plus sentence-final question particle), but use different question particles. There are two particles, *kaɪ* and *dɔ* which are used in this type of yes-no question. Both particles are also words in their own right: *kaɪ* is a comparative particle meaning 'rather' or 'more (than)', and *dɔ* is the negative copula or emphatic particle (corresponding to the positive particle *la*). The examples given in (17)–(22) correspond to those in the (positive) declarative sentences (5)–(10) and the neutral questions (11)–(16). Note that the position of the question particle (always sentence-final) is the same in all types of yes-no questions. Here, only examples with *kaɪ* have been given; the examples with *dɔ* are identical when the question particle is switched.

(17) a     vɛŋa   koŋ          nẽnaa         kaɪ
     ART.   rain   DET. NON-HUM. SG.   defecate + PROG.   QUEST.

     'It's raining, isn't it?'

(18)　a　　vaga　　koŋ　　　　　　　bɛ　　kaɪ
　　　　ART.　dog + SG.　DET. NON-HUM. SG.　come　QUEST.

　　　'The dog has come (back), hasn't it?'

(19)　n　　　　　zɔmmaa　　　a　　mũĩ　kaɪ
　　　　PRON. 2SG.　want + PROG.　ART.　rice　QUEST.

　　　'You want some rice, don't you?'

(20)　də　　　　　　　bɛllaa　　　　sã　　　　kaɪ
　　　　PRON. 3SG. HUM.　come + PROG.　tomorrow　QUEST.

　　　'He will come tomorrow, won't he?'

(21)　a　　bɔrɔ　　hoŋ　　　　　pa　　də　　　　　　kɛ̃ɔ̃　　　a
　　　　ART.　man + SG.　DET. HUM. SG.　give　PRON. 3SG. HUM.　woman + SG.　ART.

　　　fãĩ　　kaɪ
　　　porridge　QUEST.

　　　'The man gave the porridge to his wife, didn't he?'

(22)　a　　kɛ̃ɔ̃　　　hoŋ　　　　　dogom　a　　nɛmmɔ̃　koŋ
　　　　ART.　woman + SG.　DET. HUM. SG.　cut　　ART.　meat　DET. NON-HUM. SG.

　　　la　　a　　gabrɛ　　　kaɪ
　　　with　ART.　knife + SG.　QUEST.

　　　'The woman cut the meat with the knife, didn't she?'

### 1.1.1.2.1.2.2 Expecting the answer no

Yes-no questions which expect the answer no have the structure of a negative declarative sentence, plus a sentence-final question particle. The question particles, *kaɪ* and *dɔ*, are identical with those of the correspond-ing yes-no questions that expect the answer yes. Since the correspondence is so regular, only a single example is given here, in (23).

(23)　a　　vɛŋa　koŋ　　　　　　ba　　nɛ̃na　　　　kaɪ
　　　　ART.　rain　DET. NON-HUM. SG.　NEG.　defecate + PROG.　QUEST.

　　　'It isn't raining, is it?'

### 1.1.1.2.1.3 Alternative

The only alternative yes-no questions that exist in Koromfe involve repe-tition of the finite verb with a negative pronominal subject (and optionally some pronominal objects). There exists no corresponding structure with a

negated main verb and non-negated repeated verb. Examples are given in (24)–(29).

(24)  a        vɛŋa         koŋ                    nɛ̃naa            bɪ
      ART.  rain + SG.  DET. SG. NON-HUM.  defecate + PROG.  QUEST.

      gaa                            nɛ̃na
      NEG. PRON. 3SG. NON-HUM.  defecate + PROG.

      'Is it raining or not?'

(25)  a        vaga         koŋ                    bɛ      bɪ
      ART.  dog + SG.  DET. NON-HUM. SG.  come  QUEST.

      gaa                            bɛnɛ
      NEG. PRON. 3SG. NON-HUM.  come + PAST

      'Has the dog come (back) or not?'

(26)  n              zɔmmaa          a      mũĩ   bɪ        m         ba      boŋ
      PRON. 2SG.  want + PROG.  ART.  rice  QUEST.  PRON. 2SG.  NEG.  like

      'Do you want some rice or not?'

(27)  də              bɛllaa            sã           bɪ
      PRON. 3SG. HUM.  come + PROG.  tomorrow  QUEST.

      daa                            bɛlla
      NEG. PRON. 3SG. NON-HUM.  come + PROG.

      'Will he come tomorrow or not?'

(28)  a        bɔrɔ         hoŋ                    pa    də                      kɛ̃ɔ̃            a
      ART.  man + SG.  DET. HUM. SG.  give  PRON. 3SG. HUM.  woman + SG.  ART.

      fãĩ        bɪ        daa                            panɛ              dɪ
      porridge  QUEST.  NEG. PRON. 3SG. HUM.  give + PAST  PRON. 3SG. HUM.

      'Did the man give the porridge to his wife or not?'

(29)  a        kɛ̃ɔ̃          hoŋ                    dogom  a      nɛ̃mmɔ̃  koŋ
      ART.  woman + SG.  DET. HUM. SG.  cut       ART.  meat    DET. NON-HUM. SG.

      la      a      gabrɛ           bɪ        daa                            dogome
      with  ART.  knife + SG.  QUEST.  NEG. PRON. 3SG. NON-HUM.  cut + PAST

      'Did the woman cut the meat with the knife or not?'

In these alternative yes-no questions, the question particle *bɪ* is always on a high pitch. (NB: Unlike other Gur languages, Koromfe has no tones.) Also, there is a slight pause, or pause effect, after *bɪ*. Note the variations (all optional) in the tense of the repeated verb and even in the choice of

lexical verb (*boŋ* for *zɔmmaa*), which indicate that this construction is not as grammaticalized as, say, tag questions in English.

There also exists an optional coordinating element *jaa* which, if used, is positioned at the beginning of the second clause (i.e. after the short pause after *bɪ*). An example is given in (30).

(30)    bʌdini        bɛllaa        sã        bɪ     jaa
         (*proper name*)  come + PROG.  tomorrow  QUEST.  or

         daa                      bɛlla
         NEG. PRON. 3SG. NON-HUM.  come + PROG.

         'Will Badini come tomorrow or not?'

### 1.1.1.2.2 Question-word questions

There are two basic types of wh-questions: those in which the (constituent containing the) wh-element is moved to the beginning of the clause (main or embedded), and those in which the wh-element remains at its original position in the sentence (*in situ* wh-questions).

### 1.1.1.2.2.1 Elements of the sentence that can be questioned

Interrogative main clauses in Koromfe normally have the wh-word or phrase in initial position, and no overt marking of the position which it would occupy in the corresponding indicative sentence. The wh-word or phrase is optionally followed by the emphatic particle *la*. I have found no case where the presence or absence of *la* is obligatory. The negative emphatic particle *dɔ* cannot be used in this way.

Interrogative main clauses with the wh-element *in situ* are rare except in echo-questions (see §1.1.1.2.3. below).

### 1.1.1.2.2.1.1 Constituents of the main clause

Any NP or PP of a main clause can be questioned. The verb or VP can only be questioned indirectly (see (39) below). Adverbial questions are restricted to 'where', 'when' and 'how', plus the questioning of the post-position in a PP. Other adverbial questions such as 'why' involve questioned NPs.

The following examples show the questioning of a whole noun-phrase as subject (31), direct object (32)–(33) and indirect object (34).

(31)  alama        pa    (a)           vaga       koŋ               a
      who (QU. PL.)  give  ART. (*elided*)  dog + SG.  DET. NON-HUM. SG.  ART.

      mũĩ
      rice

      'Who (pl.) gave the dog rice?'

(32)  ase           na           zɔ̃mmɔ̃
      what (QU.)  PRON. 2PL.  want + DUR.

      'What do you (pl.) want?'

(33)  ase        a  kɛ̃ɔ̃       hoŋ          panɛ      a     vaga
      what (QU.)  ART.  woman + SG.  DET. HUM. SG.  give + PAST  ART.  dog + SG.

      koŋ
      DET. NON-HUM. SG.

      'What did the woman give to the dog?'

(34)  ala        də             panɛ      a    fãĩ     koŋ
      who (SG.)  PRON. 3SG. HUM.  give + PAST  ART.  porridge  DET. NON-HUM. SG.

      'Who did she give the porridge to?'

Examples (35)–(38) show the questioning of an adverbial (here: time, manner, place and cause respectively).

(35)  sefu       də             na   a     manɛ
      when (QU.)  PRON. 3SG. HUM.  see  ART.  money (COLL./ PL.)

      hɛ̃ŋ
      DET. NON-HUM. PL.

      'When did he find the money?'

(36)  nãŋkãã    də             leb   a    dãŋ      koŋ
      how (QU.)  PRON. 3SG. HUM.  build  ART.  house + SG.  DET. NON-HUM. SG.

      'How did he build the house?'

(37)  nde        də             na  mə     sundu
      where (QU.)  PRON. 3SG. HUM.  see  PRON. 1SG.  horse + SG.

      koŋ
      DET. NON-HUM. SG.

      'Where did he see my horse?'

(38)   ase      la      pa   daa                 panε       a
        what (QU.)  EMPH.  give  NEG. PRON. 3SG. HUM.  give + PAST  ART.

        gabrε       koŋ                 də               jĩmde
        knife + SG.  DET. NON-HUM. SG.  PRON. 3SG. HUM.  younger sibling + SG.

        hoŋ
        DET. HUM. SG.

        'Why didn't he give the knife to his younger brother?' (*Lit.*: 'What resulted in
        (the fact that) he didn't give the knife to his younger brother/sister?')

A verb phrase cannot be questioned directly in Koromfe. The workaround
construction that is used is similar to that of English: the verb 'do' is used
with a questioned NP object, as shown in (39).

(39)    ase      la     də              bakε
        what (QU.)  EMPH.  PRON. 3SG. HUM.  do + PAST
        'What did he do?'

### 1.1.1.2.2.1.2 Constituents of subordinate clauses

In subordinate clauses, it is possible, and usual, to question *in situ* those
words and phrases which in single-clause questions must occur sentence-
initially (see the 'a' examples in (40)–(43) below). However, it is also
possible to move the wh-word or phrase from an embedded non-subject
position to the embedded-clause-initial position (see the 'b' forms of (40)–
(43)), or to the matrix-clause-initial position the (the 'c' forms of (40)–
(43)) — except for the embedded subject, which can only be questioned in
subordinate-clause-initial position (which is also *in situ*). In other words,
an embedded subject NP cannot be moved at all. If an ambiguous se-
quence of constituents results from wh-movement, the wh-word is inter-
preted with the matrix, not the embedded sentence, e.g. in (42b).

    Recall that the emphatic particle *la*, which is found in many of these
examples, is optional in all question-word clauses. However, since it only
occurs in 'clause-second' position, it can never follow an *in situ* wh-word
that is located to the right of the verb (e.g. an unmoved direct or indirect
object).

(40)  a.   də      bo ke     də      pa a

     PRON. 3SG. HUM. say that (CONJ.) PRON. 3SG. HUM. give ART.

     gabrɛ   koŋ       ala

     knife + SG.  DET. NON-HUM. SG. who (QU.)

     'Who did he say he gave the knife to?'

       b.   də      bo ke    ala    la   də

     PRON. 3SG. HUM. say that (CONJ.) who (QU.) EMPH. PRON. 3SG. HUM.

     pa a gabrɛ   koŋ

     give ART. knife + SG. DET. NON-HUM. SG.

     'Who did he say he gave the knife to?'

       c.   ala      la   də      bo ke

     who (SG., QU.) EMPH. PRON. 3SG. HUM. say that (CONJ.)

     də       pa a gabrɛ   koŋ

     PRON. 3SG. HUM. give ART. knife + SG. DET. NON-HUM. SG.

     'Who did he say he gave the knife to?'

(41)  a.   də      hamandaa  ke    də      na

     PRON. 3SG. HUM. think + DUR. that (CONJ.) PRON. 3SG. HUM. see

     mə    sundu   koŋ       nde

     PRON. 1SG. horse + SG. DET. NON-HUM. SG. where (QU.)

     'Where does he think he saw my horse?'

       b.   də      hamandaa  ke    nde

     PRON. 3SG. HUM. think + PROG. that (CONJ.) where (QU.)

     də       na mə   sundu   koŋ

     PRON. 3SG. HUM. see PRON. 1SG. horse + SG. DET. NON-HUM. SG.

     'Where does he think he saw my horse?'

       c.   nde     də      hamand(ı)  ke    də

     where (QU.) PRON. 3SG. HUM. think + DUR. that (CONJ.) PRON. 3SG. HUM.

     na mə   sundu   koŋ

     see PRON. 1SG. horse + SG. DET. NON-HUM. SG.

     'Where does he think he saw my horse?'

(42)  a.  də                     bo  ke            də              na  a
          PRON. 3SG. HUM.   say  that (CONJ.)  PRON. 3SG. HUM.  see  ART.

          manɛ                   hɛ̃ŋ             sefu
          money (COLL./ PL.)   DET. NON-HUM. SG.   when (QU.)

          'When did he say that he saw the money?' (*Reading*: 'When did he see it?'
          *but not*: 'When did he say it?')

      b.  də                     bo  ke            sefu         də              na
          PRON. 3SG. HUM.   say  that (CONJ.)  when (QU.)  PRON. 3SG. HUM.  see

          a      manɛ
          ART.   money (COLL./ PL.)

          'When did he say that he saw the money?' (*Reading*: 'When did he see it?'
          *but not*: 'When did he say it?')

      c.  sefu         də              bole         ke             də
          when (QU.)  PRON. 3SG. HUM.  say + PAST  that (CONJ.)  PRON. 3SG. HUM.

          na    a      manɛ
          see   ART.   money (COLL./ PL.)

          'When did he say that he saw the money?' (*Reading*: 'When did he say it?'
          *but not*: 'When did he see it?')

The questioning of the first (i.e. embedded) NP of a compound
(NP+N) NP in example (43) requires a pronoun in the subordinate clause
position when the wh-word is matrix-sentence-initial (in (43b)), but not
when it remains *in situ* within the subordinate clause (in (43a)). For clarity,
the full structure of (43a) is given in (44). In (43b) it is the encircled NP of
(44) which is moved to matrix-clause-initial position and replaced with the
pronoun *gʊ*; the emphatic particle *la* is omitted to preserve the reading of
the sentence (although it would still be structurally permissible, but would
be taken to modify *lebʌm* in the changed structure).

(43)  a.  də                    bole         ke             ase          lebʌm
          PRON. 3SG. HUM.   say + PAST  that (CONJ.)  what (QU.)  build + GERUND

          la       kãŋa
          EMPH.   be hard

          'What did he say is difficult to build?' *(Wh-word in situ.)*

b. ase        dǝ               bole      ke
   what (QU.)  PRON. 3SG. HUM.  say + PAST  that (CONJ.)

   gʊ                    lebʌm       kãŋa
   PRON. 3SG. NON-HUM.  build + GERUND  be hard

   'What did he say is difficult to build?' *(Wh-word sentence initial.)*

(44)   a.
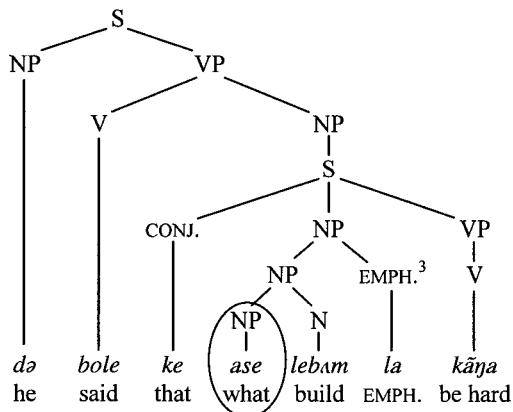


   'What did he say is difficult to build?' *(Wh-word in situ.)*

The element which normally appears in the position next to a subordinating conjunction is the subject of the subordinate clause, since most subordinating conjunctions are located at the beginning of the subordinate clause. There is no restriction on the *in situ* questioning of this element (cf. (43a)), but when it is questioned in main-clause-initial position, a pronoun copy must occupy its 'original' position in the subordinate clause (cf. (43b)). There are also pragmatically/semantically non-preferred constellations of pronouns, probably due to ambiguity of reference.

With the subordinating conjunction *kɔ̃N*,[4] on the other hand, only *in situ* questioning is allowed. This conjunction is located between the subject NP and the finite verb of the subordinate clause (when the subject NP is not a pronoun), and so the *in situ* question structure happens to have the questioned element in main-clause-initial position when the order of clauses is 'subordinate — main'. In other words, (45c) derives from (45a) but not from (45b). A sentence such as *\*ala ʊ kure (a) dɪʊ kɔ̃m bɛnɛ lɛ* derived from (45b) is quite impossible, as is any other question involving movement of the questioned element out of the *kɔ̃N*-clause to main-clause-initial position.

(45)  a.  mə          sa      kɔ̃m            bɛnɛ           lɛ      ʊ
          PRON. 1SG.  father  when (CONJ.)   come + PAST   thus   PRON. 1PL.

          kure            (a)             dɪʊ
          begin + PAST    ART. (*elided*)  eating

          'When my father arrived[5] we started eating.'

      b.  ʊ            kure           (a)             dɪʊ      mə           sa
          PRON. 1PL.   begin + PAST   ART. (*elided*) eating   PRON. 1SG.   father

          kɔ̃m            bɛnɛ           lɛ
          when (CONJ.)   come + PAST   thus

          'When my father arrived we started eating.'

      c.  ala          kɔ̃m            bɛnɛ          na           kure
          who (QU.)    when (CONJ.)   come + PAST   PRON. 2PL.   begin + PAST

          (a)             dɪʊ
          ART. (*elided*)  eating

          'When who arrived did you (pl.) start eating?' (='After whose arrival did
          you start to eat?')

Non-finite clauses and nominalized clauses (beyond 'NP+GERUND /
ACTION NOUN' constructions exemplified in (43)) do not exist and there-
fore have no elements that can be questioned. In NP+GERUND construc-
tions, as with all compound NPs, and irrespective of whether the gerund /
action noun can be considered the rendition of a full clause, only the NP
which precedes the gerund or action noun can be questioned, and this NP
is always the direct object of the verb, as exemplified in (43) above. When
the action noun has taken on a more concrete nominal (i.e. non-actional)
meaning, it can be combined with an actor noun in a genitival construction
such as *a dɔfrɛ pãũ* 'a gift from God' or *dombʌ pãũ* '(their) gifts to/for one
another'. But in these phrases, if a verbal interpretation is forced, then the
first NP must be interpreted as the direct object (giving some very strange
readings!).

## 1.1.1.2.2.1.3 Constituents of noun phrases

The selective interrogative adjective 'which' in Koromfe always follows
the noun which it qualifies, as do all other (nominal) adjectives. Example
(46) shows the construction in a direct object NP, and (47) in an indirect
object NP.

(46)    fãĩ      ndeŋgʋ     də            panɛ      a    bi
       porridge   which (QU.)   PRON. 3SG. HUM.   give + PAST   ART.   child + SG.

       hoŋ
       DET. HUM. SG.

       'Which porridge did she give to the child?'

(47)    dɔɔ          ndeeŋgʋ                     də                panɛ      a
       animal + SG.   which + NON-HUM. SG. (QU.)   PRON. 3SG. HUM.   give + PAST   ART.

       dɪʋ      koŋ
       food + SG.   DET. NON-HUM. SG.

       'Which animal did she give the food to?'

(48)    dãŋ         ndeeŋgo                   dugo          də
       house + SG.   which + NON-HUM. SG. (QU.)   kind + PL.[6]   PRON. 3SG. HUM.

       lebe
       build + PAST

       'What kind of house did he build?'

The selective adjectival wh-word *ndeeŋgʋ*[7] in (46)–(48) requires the omission of the (otherwise obligatory) article *a* before the noun which it qualifies (here: *fãĩ*, *dɔɔ* and *dãŋ* respectively). Also, this wh-word can be inflected with one of five morphemes for number-and-humanness (including diminutive).

     The structure of the NP in (48) is given in (49). The question word 'which' must go with the word 'house', and cannot be made to directly question the word *dugo* 'kinds (of)', as in *[dãŋ [dugo ndeehɛ̃]] or *[dãŋ [dugo ndeeŋgʋ]].

(49)     *The structure of the NP* dãŋ ndeeŋgʋ dugo



              *dãŋ*                  *ndeeŋgʋ*              *dugo*
         house + SG.   which + NON-HUM. SG.   kind + PL.
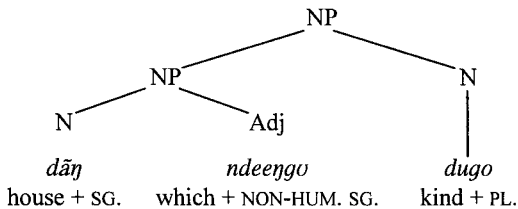
     The first part of a genitival NP+N compound NP can be a question word, as shown in (50) and (51), but the second cannot (e.g. a putative *a jãna (a)se* with the intended reading 'what (kind of food) made from millet'). Note that in (51) the second element of the NP+N compound NP is

an adjectival noun; in Koromfe no dummy noun like English 'thing' is needed.

(50)  ase       fãĩ      də                    panɛ       a     bi
      what (QU.) porridge PRON. 3SG. HUM.  give + PAST  ART.  child + SG.

      hoŋ
      DET. HUM. SG.

      'What kind of porridge did she give to the child?'

(51)  ase       jɔ̃ɔ̃ŋa     də                    panɛ       a     bi
      what (QU.) small + SG. PRON. 3SG. HUM.  give + PAST  ART.  child + SG.

      hoŋ
      DET. HUM. SG.

      'What small thing did he give to the child?'


*1.1.1.2.2.1.4 Elements of prepositional phrases*

A prepositional phrase may involve a preposition, as in (52), or a post-position, as in (53). The PP containing the question word occupies the first position within the sentence and all elements of a prepositional phrase are questioned *in situ* within the PP itself (including the preposition/postposition itself — cf. (55) below). Thus in examples (52)–(54), the question words *ase, ala* and *ndeeŋgʊ* occupy their normal position within their respective pre-/postpositional phrase.

(52)  la         (a)se       də                    dogome      a     nɛmmɔ̃
      with (PREP.) what (QU.)  PRON. 3SG. HUM.  cut + PAST  ART.  meat

      koŋ
      DET. NON-HUM. SG.

      'What did she cut the meat with?'

(53)  ala       nɪ              ŋ            kone       (a)          dɪʊ
      who (QU.)  for (POSTPOS.)  PRON. 2SG.  put + PAST  ART. (*elided*)  food

      koŋ
      DET. 3SG. NON-HUM.

      'Who did you put the food (down) for?'

(54) subre       ndeeŋʊ            joro          na
        cooking-pot + SG.   which + NON-HUM. SG.   inside (POSTPOS.)   PRON. 2PL.

        tɪgɛ       a       hem       koŋ
        put + PAST   ART.   water + SG.   DET. NON-HUM. SG.

        'Into which cooking-pot did you (pl.) put the water?'

Interestingly, a postposition can itself also be questioned, as shown in (55). A typical answer would then be 'in front of it' or 'behind it'.

(55) a     dãŋ       koŋ               nde         hĩ
        ART.   house + SG.   DET. 3SG. NON-HUM.   where (QU.)   direction

        də                tufu
        PRON. 3SG. HUM   sit + DUR.

        'In what direction to the house is he sitting?' *or* 'Which way to the house is he sitting?'

### 1.1.1.2.2.1.5 Elements of coordinate structures

The coordinating conjunction of Koromfe, *la*, is homophonous with the preposition 'with'. It is therefore almost a question of interpretational preference whether one considers sentences such as (56) to involve a co-ordinate structure (*la dəkɔ* 'and him/her') or a prepositional phrase (*la dəkɔ* 'with him/her'). The fact that *la dəkɔ* occurs in the position following the finite verb indicates to me that it is in fact a prepositional phrase. Sentences such as *\*ala la dəkɔ la bɛ* or *\*ala la la dəkɔ bɛ* are impossible. According to my informants, this case is not questioning within a coordinate structure, and other elements of coordinate structures cannot be questioned.

(56) ala       la      bɛ      la      dəkɔ
        who (QU.)   EMPH.   come   with   PRON. 3SG. HUM.

        'Who came with him/her?'

     Typical paraphrases for questioning elements of coordinate structures like (57) are given in (58)–(60). Sentence (58) questions the first of the conjoined NPs in (57), and (59)–(60) question the second.

(57) ba                wɔfaa        bɔnɛ      hĩĩ   la    wɔnɛ     hĩĩ
        PRON. 3PL. HUM.   have + PROG.   goat + PL.   two   and   hen + PL.   two

        'They have 2 goats and 2 hens.'

(58)　ase　　　　ba　　　　　　　　wɔfʊ　　　gʊ　　　　　　　　　dags　a
　　　what (QU.)　PRON. 3PL. HUM.　have + DUR.　PRON. 3SG. NON-HUM　add　　ART.

　　　wɔnɛ　hĩĩ　hɛ̃ŋgɛ
　　　hen + PL.　two　LONG DET. NON-HUM. PL.

　　　'What have they and 2 hens?' *(Lit.:* 'What have they, it is added (to) the two
　　　hens?')

(59)　ba　　　　　　　wɔfaa　　　　bɔnɛ　　　hĩĩ　la　　(a)se　　　　gɔɔɪnɛ
　　　PRON. 3PL. HUM.　have + PROG.　goat + PL.　two　and　what (QU.)　still (ADV.)

　　　'They have 2 goats and what else?'

(60)　ba　　　　　　　wɔfaa　　　　bɔnɛ　　　hĩĩ　n　　　　　dags　ase
　　　PRON. 3PL. HUM.　have + PROG.　goat + PL.　two　PRON. 2SG.　add　what (QU.)

　　　'They have 2 goats and you add what?'

## 1.1.1.2.2.1.6 Questioning more than one thing in a sentence

According to my informants, double questions within one clause are hy-
pothetically possible, but never used. In examples which they gave under
protest, of which two are given in (61)–(62), the question words remain *in
situ.*

(61)　ala　　　　la　　　dɪraa　　　　(a)se
　　　who (QU.)　EMPH.　eat + PROG.　what (QU.)

　　　'Who is eating what?'

(62)　nde　　　　　dǝ　　　　　　　　jakʊ　　　　sefu
　　　where (QU.)　PRON. 3SG. HUM.　walk + DUR.　when (QU.)

　　　'Where is he going (and) when?'

Double questions with a conjoined clause structure, as exemplified in
(63)–(64), are more usual.

(63)　nde　　　　　dǝ　　　　　　　　zɔmmǝ　　　　dǝ　　　　　　　　jaʊ　la
　　　where (QU.)　PRON. 3SG. HUM.　want + DUR.　PRON. 3SG. HUM.　walk　and

　　　sefu　　　　dǝ　　　　　　　　jakʊ
　　　when (QU.)　PRON. 3SG. HUM.　walk + DUR.

　　　'Where is he going (and) when?' *(More precisely:* 'Where does he want to go
　　　and when did he go?')

(64) nde       də                 zɔmmə        də               jaʊ   la
     where (QU.) PRON. 3SG. HUM.   want + DUR.   PRON. 3SG. HUM.   walk   and

     sefu      la       də              jabrɛ
     when (QU.) COPULA   PRON. 3SG. HUM.  walk (NOUN) + SG.

   'Where will he go and when?' *(More precisely:* 'Where does he want to go and
   when is his departure?'*)*

### 1.1.1.2.2.2 Changes to the questioned element

The questioned element is moved to sentence-initial position in normal
wh-questions (see examples (32)–(34) above), but can be left *in situ* in
embedded clauses (see the 'a' forms of (40)–(43) above) and echo-
questions (see §1.1.1.2.3. below). This sentence-initial position is then no
longer available for a topicalized element because the questioned element
occupies its structural position.

### 1.1.1.2.2.2.1 No change

The questioned element is left unchanged only in echo-questions (where it
is the only possible structure — cf. §1.1.1.2.3 below) and in parts of dou-
ble questions (cf. §1.1.1.2.2.1.6 above).

### 1.1.1.2.2.2.2 Movement to initial position

Movement to initial position is the normal case in non-embedded wh-
questions (see the examples in §1.1.1.2.2.1 above).

### 1.1.1.2.2.2.3 Movement to preverbal position

Movement to preverbal position as such does not occur. When a subject
NP is questioned, it *remains* in pre-verbal position, but is not moved there.

### 1.1.1.2.2.2.4 Clefting

The question structures involving the emphatic particle *la* might perhaps
be regarded as a kind of clefted structure if the *la* is interpreted as being
the copula. However, I do not consider them to be clefted. There is nothing
which corresponds to a relative pronoun or particle in this structure. Thus
parallel to (33), repeated here, we also have (65) with *la* intervening be-
tween the question-word and the rest of the sentence.

(33)  ase          a      kɛ̃ɔ̃                hoŋ                panɛ          a      vaga
      what (QU.)   ART.   woman + SG.        DET. HUM. SG.     give + PAST   ART.   dog + SG.

      koŋ
      DET. NON-HUM. SG.

      'What did the woman give to the dog?'

(65)  ase          la       a      kɛ̃ɔ̃            hoŋ                panɛ          a
      what (QU.)   EMPH.    ART.   woman + SG.    DET. HUM. SG.     give + PAST   ART.

      vaga          koŋ
      dog + SG.    DET. NON-HUM. SG.

      'What did the woman give to the dog?'

### 1.1.1.2.2.2.5 Intonation nucleus

In all wh-question structures discussed here the questioned element is usually the intonation nucleus, i.e. it is the highest pitch in the sentence — either by default, when sentence-initial, or by contrastive intonation when *in situ.*

### 1.1.1.2.2.2.6 Other possibilities

There are no other changes to the questioned element.

### 1.1.1.2.2.2.7 Movement of other elements of the clause together with the questioned element

When the questioned element is moved, no other parts of the sentence can be moved with it, except that a noun phrase or a prepositional phrase must be moved as a whole when any part of it is questioned. Thus pre-/postpositions cannot be stranded. A particularly striking example of this is (66), where the postposition of a PP is questioned:

(66)  a      dãŋ            koŋ                nde      hĩ           də
      ART.   house + SG.   DET. NON-HUM. SG.  where   direction   PRON. 3SG. HUM.

      tufu
      sit + DUR.

      'In what direction to the house is he sitting?'

### 1.1.1.2.3 Echo-questions

Echo-questions usually take the same form as the corresponding direct yes-no and wh-questions. But also, the question particle (*bɪ* etc.) can be

omitted or the wh-word questioned *in situ*. An example of each type of these specific echo-questions is given in the following sub-sections.

The restrictions on the structure of echo-questions are the same as those on normal yes-no and wh-questions. There seem to be no additional restrictions on *in situ* echo-questions, so long as the corresponding normal wh-question (with movement) is also well-formed.

A strategy which my informants preferred was to avoid echo-questions by using a paraphrase involving the verb *say*, on the lines of 'Did you say: X?' or 'Where do you say you are going?'.

### 1.1.1.2.3.1 Yes-no echo-questions

(67)  a.  mə        jakaa       tubre              saŋkoŋ
          PRON. 1SG.  walk + DUR.  in(to) the bush (ADV.)  now

          'I'm going into the bush now.'

      b.  n           jakaa       tubre
          PRON. 2SG.  walk + DUR.  in(to) the bush (ADV.)

          'You are going into the bush?'

      c.  ǹhń  mə        jakaa       tubre
          yes  PRON. 1SG.  walk + DUR.  in(to) the bush (ADV.)

          'Yes, I'm going into the bush.'

(68)  a.  mə        vaɡa     ko  walən(ɛ)  tãã
          PRON. 1SG.  dog + SG.  kill  rat + PL  three

          'My dog has killed 3 rats.'

      b.  n          vaɡa     ko  walən(ɛ)  tãã
          PRON. 2SG.  dog + SG.  kill  rat + PL  three

          'Your dog has killed 3 rats?'

      c.  ŋɡje  walən(ɛ)  tãã
          yes  rat + PL  three

          'Yes, 3 rats.'

### 1.1.1.2.3.2 Question-word echo-questions

(69)  a.  sã        mə         jakaa        tubre
          tomorrow  PRON. 1SG.  walk + DUR.  in(to) the bush (ADV.)

      'I will leave for the bush tomorrow.'

      b.  n           jakaa        nde
          PRON. 2SG.   walk + DUR.  where (QU.)

      'Where will you leave for?'

      c.  tubre
          in(to) the bush (ADV.)

      'The bush.'

### 1.1.1.2.3.3 Yes-no question echo-questions

My informants were reluctant to form yes-no echo-questions without some introductory expression indicating 'Did you say X' or 'Do you mean X'. In examples (70)–(71) the first word, *handa*, is such an expression.

(70)  a.  n           jakaa        dããnɛ  sa    bɪ
          PRON. 2SG.   walk + DUR.  home   now   QUEST.

      'Are you going home now?'

      b.  handa   mə         jakaa        dããnɛ  sa    bɪ       — ŋgei
          truly   PRON. 1SG.  walk + DUR.  home   now   QUEST.  — yes

      'Am I going home now? — Yes.'

(71)  a.  na          na    a     tifefi          hɛ̃ŋgɛ
          PRON. 2PL.   see   ART.  elephant + PL.  LONG DET. NON-HUM. PL.

          dɛ̃ɛ̃       bɪ
          yesterday  QUEST.

      'Did you see the elephants yesterday?'

      b.  handa   ʊ           na    a     tifefi          hɛ̃ŋgɛ
          truly   PRON. 1PL.   see   ART.  elephant + PL.  LONG DET. NON-HUM. PL.

          bɪ       — ajɛj
          QUEST.  — No.

      'Did we see those elephants? — No.'

### 1.1.1.2.3.4 Question-word question echo-questions

(72)  a.  nde   n    jakʊ
     where (QU.) PRON. 2SG. walk + DUR.

     'Where are you going?'

   b.  handa  nde   mə   jakʊ   —  mɛŋgaʊ
     truly  where (QU.) PRON. 1SG. walk + DUR. —  *(name of a village)*

     'Where am I going? — To Mengao.'

(73)  a.  n     wɔlɔmaa   la  ala
     PRON. 2SG. speak + PROG. with  who (QU.)

     'Who are you talking to?'

   b.  handa  ala    la   mə    wɔlɔmɔ̃   —  la
     truly  who (QU.) EMPH. PRON. 1SG. speak + DUR. —  with

     mə    gɪllɛ
     PRON. 1SG. self + SG.

     'Who am I talking to? — To myself.'

### 1.1.1.2.3.5 The elements of the sentence which can be subject to echo-questioning

There are no restrictions on the elements of the sentence which can be echo-questioned; this is hardly surprising, considering that the structure of echo-questions repeats the original question verbatim.

### 1.1.1.2.3.6 Echo-questioning of more than one element at a time

It is possible to echo-question a double question only insofar as double or multiple questions are tolerated at all (cf. §1.1.1.2.2.1.6 above).

### 1.1.1.2.3.7 Questioning of the different elements (word-types)

The questioning of the various elements of the sentence, be they words, phrases or other structures, always involves repetition of the normal, non-echo question preceded by some introductory expression indicating 'Did you say X' or 'Do you mean X' (such as *handa* in the above examples).

### 1.1.1.2.4 Answers

Answers in Koromfe can take the form of full or incomplete sentences. The full sentence answers have the structure of the declarative sentence

corresponding to the question itself. In the following sub-sections, the incomplete answers are described in more detail.

### 1.1.1.2.4.1 Answers as a distinct speech act

Answers cannot be considered to be a distinct type of speech act from a structural point of view, i.e. there is no special structural distinction between indicative sentences and answers, except that answers can be elliptical (see §1.1.1.2.4.2. below). Typically, a reply to a question-word question will involve the topicalizing/emphatic particle *la*, and a reply to a yes-no question some kind of yes/no/maybe word (see §1.1.1.2.4.2.1.1. below).

### 1.1.1.2.4.2 Incomplete sentences as answers

### 1.1.1.2.4.2.1 Yes-no questions

### 1.1.1.2.4.2.1.1 Words for 'yes', 'no', 'maybe'

The words for 'yes' and 'no' in Koromfe vary slightly (stylistically?) in their phonetic realization — I have therefore transcribed them in greater phonetic detail than usual. Also, these words are accompanied by a distinctive intonation pattern, which I have marked with high and low tone marks, where appropriate, in the examples given here. It seems that the most important thing about these words is that when disyllabic, 'yes' always has a rising tone pattern (LH) and 'no' a falling pattern (HL).

(74)    *Words for 'yes', 'no' and 'maybe'*

| 'yes' | 'no' | 'maybe' |
|---|---|---|
| (ɲ)jẽ | n̂n̂ | ɡʊ dɛɪ *('it can')* |
| ŋɡjei | ʔɔ́ʔɔ̀ | |
| ŋɡje | ájò | |
| m̂hm̂ | ájɛ̀ɪ | |
| n̂hń | | |
| àhá | | |

### 1.1.1.2.4.2.1.2 The use of 'yes' and 'no' in reply to negative and other leading questions

The answer 'no' to a negative leading question such as (23), repeated here for convenience, means that the speaker agrees with the negated proposi-

tion (i.e., here, that it is not raining). The answer 'yes' was not accepted by my informants with any reading (i.e. agreement or disagreement).

(23)    a    vɛŋa koŋ             ba    nɛ̃na          kaɪ
        ART. rain  DET. NON-HUM. SG.  NEG.  defecate + PROG.  QUEST.

        'It isn't raining, is it?'

With the positive leading questions, 'yes' means agreement with the positive proposition and 'no' means disagreement.

In general, I have not noticed any unexpected use of 'yes' or 'no' in Koromfe vis-à-vis English usage.

### 1.1.1.2.4.2.2 Question-word questions

When considering the reduction of answers to wh-questions it is practical to treat questioned noun-phrases and prepositional phrases separately from questioned verbs.

### 1.1.1.2.4.2.2.1 Questioned noun phrases and prepositional phrases

As mentioned above, the answer to a wh-questioned noun-phrase normally involves emphasis with the emphatic particle *la* (or *dɔ*, if negative). If the answer is a full sentence, the answer element is emphasized (i.e. moved to the front of the main clause and followed by *la*). An example question is given in (75) and its full answer in (76).

(75)    ala        pa   (a)         vaga   koŋ                       a    mũĩ
        who (QU.)  give  ART. (*elided*)  dog + SG.  DET. NON-HUM. SG.  ART.  rice

        'Who gave the rice to the dog?'

(76)    a    bɔrɔ        hoŋ          la     pa   (a)          vaga
        ART.  man + SG.  DET. HUM. SG.  EMPH.  give  ART. (*elided*)  dog + SG.

        koŋ                a    mũĩ
        DET. NON-HUM. SG.  ART.  rice

        'The man gave the dog the rice.'

Reduced answers to wh-questions involve the omission of noun-phrases or prepositional phrases vis-à-vis the full answer, or the replacement of noun-phrases by pronouns, much the same as in English. However, the use of pronouns is not obligatory. In (78) and (79) (both sentences being typical reduced answers to question (75)), the direct object 'rice' is completely omitted.

(77)  a      bɔrɔ     hoŋ              la      pa    gʊ[8]                              a
      ART.   man + SG.   DET. HUM. SG.   EMPH.   give   PRON. 3SG. NON-HUM.   ART.

      mũĩ
      rice

      'The man gave him the rice.'

(78)  a      bɔrɔ     hoŋ              la      pa    (a)                vaga
      ART.   man + SG.   DET. HUM. SG.   EMPH.   give   ART. (*elided*)   dog + SG.

      koŋ
      DET. NON-HUM. SG.

      'The man gave (it) to the dog.'

(79)  a      bɔrɔ     hoŋ              la      pa    gʊ
      ART.   man + SG.   DET. HUM. SG.   EMPH.   give   PRON. 3SG. NON-HUM.

      'The man gave him (it).' *(where gʊ 'him' can only refer to the dog)*

Finally, a fully reduced (i.e. minimal) answer contains only an emphasized noun-phrase, as in (80), or the bare noun phrase (without *la*).

(80)  a      bɔrɔ     hoŋ              la
      ART.   man + SG.   DET. HUM. SG.   EMPH.

      '(It was) the man.'

Fully reduced answers of the form 'prepositional phrase', with or without *la*, are also possible, whether involving a postposition, as shown by the question in (81) and its minimal answer in (82), or a preposition as in (83) (in response to 'What did she cut the meat with?').

(81)  ala         nı                ŋ             kone        (a)
      who (QU.)   for (POSTPOS.)   PRON. 2SG.   put + PAST   ART. (*elided*)

      dıʊ          koŋ
      food (SG.)   DET. 3SG. NON-HUM.

      'Who did you put the porridge (down) for?'

(82)  a      luko      koŋ                    ne                 la
      ART.   cat + SG.   DET. NON-HUM. SG.   for (POSTPOS.)   EMPH.

      'For the cat.' *(= minimal answer)*

(83)  la            (a)                gabrε        koŋ                    la
      with (PREP.)   ART. (*elided*)   knife + SG.   DET. 3SG. NON-HUM.   EMPH.

      'With the knife.' *(= minimal answer)*

### 1.1.1.2.4.2.2.3 Questioned verbs

Remember that it is impossible to question a finite verb directly; as in English, the question must be formulated using a dummy object question word, as in (84).

(84)    ase         la      də             bakɛ
       what (QU.)   EMPH.   PRON. 3SG. HUM.   do + PAST

       'What did he do?'

(85)    də               gondu   la
       PRON. 3SG. HUM.   leave   EMPH.

       'He left.'

The minimal reply to such a question has the form 'NP verb *la*', as shown in (85), where NP is the subject noun phrase of the sentence (or, optionally, a pronoun substitute) and verb is finite. It is impossible to omit this subject NP in answer to a question such as (84) (e.g. *\*gondu la*). Note that in (85) the emphatic particle *la* qualifies a finite verb.

     If an embedded verb phrase is questioned, however, it is possible (marginally) to have a gerund (i.e. non-finite) verb form, as exemplified in the question-answer pair (86)–(87).

(86)    də              bo     ke          ase         la       də
       PRON. 3SG. HUM.   say   that (CONJ.)   what (QU.)   EMPH.   PRON. 3SG. HUM.

       zɔmmɔ̃
       want + DUR.

       'What did he say that he wanted? '

(87)    mə         naam
       PRON. 1SG.   see + GERUND

       'To see me.' *(Lit.: 'My sight.')*

### 1.1.1.3 Imperative sentences

There are two normal ways of forming an imperative sentence in Koromfe: either with a true imperative (which is restricted to the 2nd person, singular or plural) or with a full sentence (in all persons) introduced by the conjunction *ke*. In §1.1.1.3.1.1 a third possibility, with the omission of *ke*, is described; my informants never gave such imperative forms spontaneously. In effect, they are just declarative sentences used as imperatives.

Singular imperative sentences normally have no overt subject. The disjunctive 2nd person singular pronoun *ŋkɔ* can optionally precede the verb; but this could equally be construed as a separate, vocative element like English 'Hey, you, give me your hat!', which is not structurally a part of the imperative sentence. The superficial structure of singular imperatives consists of a finite verb (either the UNMARKED or the DURATIVE form), optionally followed by the same syntactic elements found in corresponding declarative sentences.

The plural (and respectful singular) imperative is formed by postposing the 2nd person plural clitic pronoun after the imperative verb form. This is the only construction in Koromfe with subject-verb inversion, i.e. where the finite verb precedes its subject; it occurs only with the clitic pronoun *na*, and not with its disjunctive form *nakɔ*. The plural disjunctive pronoun may also precede the verb, giving the structure *nakɔ* — verb — *na*.

If there is a distinction of degree among the imperatives, then only between the true positive imperatives and the clauses introduced by *ke* — the former being stronger.

### 1.1.1.3.1 The positive imperative forms

There exist two types of (positive) imperative, which we will call the normal and the durative imperative. Morphologically, each type of imperative has only one inflectional form, which is identical with the UNMARKED and DURATIVE verb form respectively.

Structurally, the normal imperative consists of the bare verb stem, with automatic phonological modifications where required (e.g. the appearance of a fully harmonized final vowel phrase-finally). The durative imperative consists of the DURATIVE stem of the verb (which itself is usually formed from the bare verb stem by the addition of the suffix /-d/ — see §2.1.3.3.2.1 on the formation of the DURATIVE).

The semantic distinction between the two types of imperative is one of duration: the durative imperative form is used to emphasize that the activity concerned ought to be carried out for a longer-than-usual period of time. This usage is thus similar to English imperatives using the progressive form, like *You be cleaning the windows while I wash up*. It is also typically used with the connotation 'do X while I'm away'.

## 1.1.1.3.1.1 Person/number combinations of the imperative

The normal imperative is possible only in the 2nd person singular and plural, as shown in (88)–(89).

(88)    pa    mɛ          n          jõ        tasgʋ        koŋ
         give  PRON. 1SG.  PRON. 2SG.  head (SG.)  basket + SG.  DET. NON-HUM. SG.

         'Give (sg.) me your (sg.) hat.'

(89)    pa    na          mɛ          na        jõ        tasfɪ
         give  PRON. 2PL.  PRON. 1SG.  PRON. 2PL.  head (SG.)  basket + PL.

         hɛ̃ŋgɛ
         LONG DET. NON-HUM. PL.

         'Give (pl.) me your (pl.) hats.'

The sentences (88)–(89) can each be preceded by the respective disjunctive pronoun, *ŋko* (2SG.) and *nakɔ* (2PL.).

With other persons, the imperative with *ke* is usual, where the normal (usually pronominal) subject must be overtly expressed. However, in my texts there are both 1st and 3rd person plural sentences with an overt subject (even with a full NP subject in the 3rd person in (91)) which are used as imperatives (although structurally they cannot be distinguished from indicative sentences). In (90), where the first verb 'come' has a (covert) 2nd person singular subject, and the second verb 'go' an overt 1st person plural subject. However, the reading could be non-imperative (i.e. 'Come — we're going!'.) In one of my texts, a sacrifice ceremony, the ancestors are constantly asked to grant gifts to the living with sentences such as (91).

(90)    kɔ           dǝ                  bole     ke          woodi
         then (CONJ.)  PRON. 3SG. HUM.  say + PAST  that (CONJ.)  EXCL.

         ke            bɛ    ʋ       jaʋ
         that (CONJ.)  come  PRON. 1PL.  go

         'Then he said: "Oh dear!" and: "Come, let's go!"'

(91)    a      sammã       namba         jɛ̃ŋsɪ  ba             soŋ   a
         ART.  father + PL.  DEICTIC 3PL. HUM.  rise  PRON. 3PL. HUM.  take  ART.

         hem
         water (SG.)

         'Let the ancestors rise up and take some water!'

Imperative sentences formed with the conjunction *ke* have the syntactic structure of normal indicative sentences, but with *ke* in sentence-initial position. Thus they show all person and number forms, some of which are exemplified in (92)–(95). It seems that this construction is considered by speakers to originate in reported speech, especially since there is no special verb corresponding to English 'command, order'; in Koromfe one can either 'say' or 'wish', and this is construed as a command. See §1.1.2.2.5. below on indirect commands.

(92)   ke            də              bɛ     jere
       that (CONJ.)   PRON. 3SG. HUM.   come   here

       'Let him come here!' *(Lit.:* 'That he come here!'*)*

(93)   ke            ba              bɛ     jere
       that (CONJ.)   PRON. 3PL. HUM.   come   here

       'Let them come here!' *(Lit.:* 'That they come here!'*)*

(94)   ke            ʊ               gondu
       that (CONJ.)   PRON. 1PL.      leave

       'Let's go!' *(Lit.:* 'That we leave!'*)*

(95)   ke            n               jom
       that (CONJ.)   PRON. 3PL. HUM.   follow

       'Follow!' *(Lit.:* 'That you follow!'*)*

### 1.1.1.3.1.2 Degrees of imperative

Although there are three structures for imperatives, these do not distinguish degrees. Thus there are no formally marked degrees of imperative, apart from the usual polite formulations such as 'Would you be so kind as to...'.

### 1.1.1.3.2 The negative imperative forms

The negative imperative is formed in the same way as the positive imperatives that use *ke*, but introduced by the negative conjunction *ka* instead of the *ke*; in this case, an overt 2nd person subject (proclitic or disjunctive) is obligatory and the 2PL. subject *na* must precede the verb (in contrast with the true positive imperative, where *na* follows the verb). This construction is identical with the indirect negative command (cf. §1.1.2.2.5. below).

Note the phonetic similarity in the *a* vowel between *ka* and the negative personal pronouns described in §2.1.2.1.10.

(96)  ka                          n                harı    mə              jõ      tasgυ
      that + NEG. (CONJ.)   PRON. 2SG.   touch   PRON. 1SG.   head   basket

'Don't (sg.) touch my hat!' *(Lit.:* 'Lest you touch my hat!'*)*

(97)  ka                          na              fυsυ
      that + NEG. (CONJ.)   PRON. 2SG.   move

'Don't (pl.) move!' *(Lit.:* 'Lest you move!'*)*

### *1.1.1.3.2.1 Person/number combinations of the negative imperative*

The person/number combinations are the same as with the positive imperatives using *ke* — i.e. all that can be expressed by the personal pronouns.

There are no different degrees of negative imperative, therefore §1.1.1.3.2.2 is inapplicable.

### *1.1.1.3.3 Other means of expressing the above types of imperative*

There are no other direct, structural means of expressing the above types of imperative, but see §1.1.2.2.5. below on indirect commands.

### *1.1.1.4 Other distinct sentence-types*

There are no other structurally distinct sentence-types.

### *1.1.1.5 Sentence-types used regularly in functions other than their normal ones*

One (rare) type of imperative sentence has the structure of a declarative sentence (cf. §1.1.1.3 and §1.1.1.3.1.1 above).

As in many other languages, an imperative clause can be used as a conditional clause, as shown in (98). In this construction in Koromfe, there is nothing at the clause boundary (here: between *tasgυ* and *mə*) which corresponds to the *and* of English (although there is a clear pause intonation). However, the juxtaposition of clauses with no overt coordinator is a normal construction (cf. §1.3 below).

(98)  har    mə          jõ           tasgu         mə           bollʌʌ
      touch  PRON. 1SG.  head (SG.)   basket + SG.  PRON. 1SG.   say + DUR.

      mə          sa            nɛ
      PRON. 1SG.  father (SG.)  to (PRON.)

'Touch my hat and I'll tell my father!' *(I.e. If you touch my hat, I'll tell my father.)*

## 1.1.2 Subordination

### 1.1.2.1 General markers of subordination

There are no general markers of subordination *per se* in Koromfe. There exist subordinating conjunctions, relative pronouns etc. which introduce subordinate clauses; but there are also subordinate clause types (conditional adverb clauses) with no marking at all except the form of the verb (which in the case of real conditions is also possible in a main clause).

### 1.1.2.2 Noun clauses

### 1.1.2.2.1 General properties of noun clauses

The usual marker of noun clauses in Koromfe is the conjunction *ke*, which (in this usage) corresponds to Engl. *that*, Ger. *daß* or Fr. *que* — cf. examples (99)–(100).

(99)  m            bi           hoŋ             n            nãã  dɪ
      PRON. 2SG.   child (SG.)  DET. HUM. SG.   PRON. 2SG.   see  PRON. 3SG. HUM.

      joote  m            ba    gellʌʌ         ke          dəkɔ
      today  PRON. 2SG.   NEG.  know + PROG.   that (CONJ.) DISJ. PRON. 3SG. HUM.

      la
      COPULA

'[He said]... "That child of yours — if you see him today you won't know that it's him."'

(100) mə           hamandaa        ke           sã         də           bɛllaa
      PRON. 1SG.   think + PROG.   that (CONJ.)  tomorrow   PRON. 3SG.   come + PROG.

'I think that he will come back tomorrow.'

### 1.1.2.2.2 Different types of noun clause

The use of the conjunction *ke* is not obligatory, especially for set phrases like *gu dɛɪ* 'it is possible', as shown in (101).[9]

(101)  gʊ              dɛɪ ʊ        leb   a     dãŋ        kaŋna
       PRON. 3SG. NON-HUM.  can   PRON. 1PL.  build  ART.  house + SG.  solid

       'It is possible for us to build a solid house.'

### 1.1.2.2.3 Indirect statements

Indirect statements are also usually (but not obligatorily) introduced by the conjunction *ke*. They are described in §1.1.1.1. above.

### 1.1.2.2.4 Indirect questions

Indirect questions are introduced either by the conjunction *ke* or by a caesura-inducing exclamatory particle such as *handa*. This is the same device that is used in one common type of echo-question (cf. §1.1.1.2.3 above).

Otherwise indirect questions are syntactically identical to direct questions, although my impression is that the optional emphatic particle *la* is used more frequently than in direct questions. In example (102), *handa* can be replaced with *ke* without altering the meaning of the sentence.

(102)  mə             zɪg(ɪ)  dɪ                handa ala       la
       PRON. 1SG.     ask    PRON. 3SG. HUM.  truly who (QU.)  EMPH.

       də             hẽmsɛ          a     bɔr(ʊ)  nɛ
       PRON. 3SG. HUM  meet + PAST    ART.  road    at (POSTPOS.)

       'I asked him whom he met on the way.'

### 1.1.2.2.5 Indirect commands

There exists a word *bɪ* whose function seems to be to introduce an indirect imperative clause within a (complex) sentence, especially within directly or indirectly quoted speech (cf. (103)–(105) below). The conjunction *ke*, which can be used for direct commands (cf. §1.1.1.3. above), is not used in this function, where it would often be ambiguous. (*ke* also introduces indirect speech, noun clauses and several types of adverb clause.) The distribution of (substitute imperative) *ke* and (this) *bɪ* is therefore complementary: *ke* occurs sentence-initially and *bɪ* sentence-internally. My informants were willing to accept a sentence-initial *bɪ* instead of *ke*, but never produced such sentences spontaneously.

(103)  n                    nãã   dɪ                     dʊrʊ   bɪ      n                    tabəgə
       PRON. 2SG.   see   PRON. 3SG. HUM.   all    CONJ.   PRON. 2SG.   trample

       dɪ                     ŋ                      kʊ
       PRON. 3SG. HUM.   PRON. 2SG.   kill

       'If you see him at all, then trample on him and kill him.'

(104)  də                          bo    ke              kãŋ              kɔ́                    wɛ̃
       PRON. 3SG. HUM.   say   that (CONJ.)   thing + SG.   NON-SPEC. REL.   be

       tike              dʊrʊ   bɪ      gʊ                          bɛ          dɪ
       place + SG.   all     CONJ.   PRON. 3SG. NON-HUM.   come   eat

       dɪ                          də                          sɪbʊ   də                          da
       PRON. 3SG. HUM.   PRON. 3SG. HUM.   die     PRON. 3SG. HUM.   win

       də                          gɪllɛ
       PRON. 3SG. HUM.   self

       'She said that (any) beast that exists anywhere should come and eat her (so
       that) she (would) die and have her peace.'

(105)  də                          kɔ́ndɛ         a       joroŋ   bĩnĩŋ         koŋ
       PRON. 3SG. HUM.   find + PAST   ART.   pot + SG.   black + SG.   DET. NON-HUM. SG.

       ja          bɪ      də                          sumbotu
       EXCL.   CONJ.   PRON. 3SG. HUM.   open

       '[He said] "...If he found the black pot, then he should take the lid off it."'

In some ways, this *bɪ* is similar to conjunctions such as Engl. *then*,
Ger. *dann*, and also to adverbs such as Engl. *just*, Ger. *nur*, but with the
distinction that the imperative clause still has to have an overt subject,
even in the 2nd person.

### 1.1.2.2.6 Non-finite versions of the above types of clause

Noun clauses with the appropriate structure can be replaced by a com-
pound noun consisting of a gerund or (if the verb has one) a deverbal ac-
tion noun as its second member and the direct object NP as its first mem-
ber, as exemplified in (106). Here it is only accidental that the beneficiary
of the hair-cutting is expressed in *də jõ* 'his head', because he happens to
be identical with the possessor of the head.

(106)  a     kiŋkirgʌ              kɛŋ              bo ja   ke
       ART.  spirit of the bush + SG.  DET. DIMIN. SG.  say EXCL.  that

       də               zoromʌʌ      də               jõ
       PRON. 3SG. HUM.  beg + PROG.  PRON. 3SG. HUM.  head + SG.

       põnam
       shave + GERUND

       'The spirit of the bush said that he would like his hair cut.' *(lit.:* '...his head-shaving'*)*

In one exceptional case, an informant even approved such a compound with an additional indirect object NP and a locative phrase — the sentence is given in (107).

(107)  a     gabrɛ          pãõ                  a     kɛ̃ɔ̃          a     kɛkʊ
       ART.  knife + SG.    give (ACTION NOUN)   ART.  woman + SG.  ART.  field + SG.

       joro            kaŋənaa
       in (POSTPOS.)   be hard + PROG.

       'It's hard to give a woman a knife in a field.'

### 1.1.2.3 Adjective clauses (relative clauses)

### 1.1.2.3.1 General properties of adjective clauses

Adjective clauses have no special marking apart from their position and their relative pronoun (etc.), as described below.

### 1.1.2.3.2 Restrictive and non-restrictive clauses

Non-restrictive relative clauses in the normal sense (though see the next paragraph) do not exist; instead, conjunction and apposition of clauses are used. The temporal adverb clauses (described in §1.1.2.4.2.1. below) bear a strong resemblance to relative clauses: the introductory conjunction *kɔ̃N* is homophonous with the non-specific relative pronoun, and both clause types show inversion with the subject NP (again, see §1.1.2.4.2.1). However, the temporal clauses always have an overt subject apart from *kɔ̃N*, while the restrictive relative clauses can have *kɔ̃N* itself as the subject of the relative clause.

The closest thing to a non-restrictive relative clause in Koromfe is the construction involving the relative word *kɔ*. This word (which I here call a sentential relative) refers to the previously uttered sentence (or longer discourse) in the same way as English *which* in: *It's raining — which is*

*why we're staying at home.* In example (108), *kɔ* is the subject of the following clause; in (109) it is the NP of a postpositional phrase (with the complex postposition *dɔba nɛ* 'on top of' used temporally in the sense of 'after').

(108)  dǝ                    ho   kesem    kɔ                    la    pa
       PRON. 3SG. HUM   run   much (ADV.)   which (SENT. REL.)   EMPH.   give

       dǝ                    wargɛ
       PRON. 3SG. HUM   be tired + PAST

       'He ran a lot — which resulted (in the fact that) he was tired.'

(109)  kɔ                         dɔba  nɛ              a      jemdi
       which (SENT. REL.)   top    at (POSTPOS.)   ART.   hippopotamus + SG.

       bɛnɛ                sɪrɪ   la          (a)            jɛ̃nɛ
       come + PAST   leave   with (PREP.)   ART. (*elided*)   night + SG.

       ke                   g(ʊ)                     zɔmmɔ̃         gʊ
       because (CONJ.)   PRON. 3SG. NON-HUM   want + DUR.   PRON. 3SG. NON-HUM

       wɔ̃m   a       jomu    a       hem            nɛ̃nɛ
       eat     ART.   grass   ART.   water (SG.)   mouth (POSTPOS.)

       'After that, Hippo went out during the night because he wanted to eat some grass at the edge of the river.'

The adverb *kɔ* 'then' may be a kind of absolute use of this sentential relative.

### 1.1.2.3.3 The position of the head noun

The NP containing the head noun always precedes the relative clause; the head noun is frequently qualified by a demonstrative, or in the singular by *dom*, the cardinal numeral 'one'. The whole 'NP + relative clause' structure is often followed by an (optionally additional) DETERMINER, as in (110), and also optionally reinforced with a following pronoun such as the *dǝ* in (110).

(110)  bɔrɔ          dom   kɔ̃n                    mǝ                hɛmsɛ           dɛ̃ɛ̃
       man + SG.   one    NON-SPEC. REL.   PRON. 1SG.   meet + PAST   yesterday

       hoŋgo                     dǝ                     gonde            joote
       LONG DET. HUM. SG.   PRON. 3SG. HUM.   leave + PAST   today

       'The man that I met yesterday left today.'

## 1.1.2.3.4 Treatment of the element in the relative clause corresponding to the head noun

The element in the relative clause corresponding to the head noun is replaced with a relative pronoun. There are two types of relative pronoun, which I will term specific and non-specific. The SPECIFIC relative pronouns are quite marginal: the two existing pronouns (*ala* SG., *bɛnəma* PL.) are restricted to human NPs. The singular is formally identical to the corresponding question word, but the plural question word, *alama*, bears no resemblance to the corresponding relative pronoun *bɛnəma*. The NON-SPECIFIC relative pronoun *kɔN* is used in these and all other cases. Examples of specific relative pronouns are given in (111)–(112) and their equivalents with the non-specific relative pronoun in (114)–(115).

## 1.1.2.3.5 Position of the relative pronoun

Except when the NON-SPECIFIC RELATIVE *kɔN* is involved (see immediately below), the relative pronoun always occurs in relative-clause-initial position (and therefore immediately following the head noun). Examples are given in (111)–(115). The second relative clause of (113) is headless (cf. §1.1.2.3.6 below).

(111)  ba                    jom     bɔrɔ      dom ala               məkɔ

       PRON. 3PL. HUM.  follow  man + SG.  one  who (SG. REL.)  DISJ. PRON. 1SG.

       panɛ          mə            sundu         hoŋgo

       give + PAST  PRON. 1SG.  horse + SG.  LONG DET. HUM. SG.

       'They followed the man to whom I gave my horse.'


(112)  a    beleʌ       bɛnəma         haŋsɛ        ba

       ART.  child + PL.  who (PL. REL.)  help + PAST  PRON. 3PL. HUM.

       ɟã             hoŋgo            da   (a)        pãõ

       mother + SG.  LONG DET. HUM. SG.  gain  ART. (*elided*)  gift (SG.)

       'The children who helped their mother have received a reward.'


(113)  a    beleʌ       bɛnəma         da   (a)        pãõ

       ART.  child + PL.  who (PL. REL.)  gain  ART. (*elided*)  gift (SG.)

       bɛŋ           bɛnəma         haŋsɛ       ba             ɟã

       DET. HUM. PL.  who (PL. REL.)  help + PAST  PRON. 3PL. HUM.  mother + SG.

       hoŋ          la

       DET. HUM. SG.  COPULA

       'The children who received a reward are (those) who helped their mother.'

(114)  ba                   jom    bɔrɔ       dom  kɔ̃(n)           məkɔ
        PRON. 3PL. HUM.  follow  man + SG.  one  NON-SPEC. REL.  DISJ. PRON. 1SG.

        panɛ         mə          sundu        hoŋgo
        give + PAST  PRON. 1SG.  horse + SG.  LONG DET. HUM. SG.

        'They followed the man to whom I gave my horse.'

(115)  a    beleʌ        kɔ̃               haŋsɛ       ba
        ART.  child + PL.  NON-SPEC. REL.  help + PAST  PRON. 3PL. HUM.

        ɉã         hoŋgo                 da  (a)        pãʊ̃
        mother + SG.  LONG DET. HUM. SG.  gain  ART. (*elided*)  gift (SG.)

        'The children who helped their mother have received a reward.'

The RELATIVE PRONOUN *kɔ̃N*, which I have termed NON-SPECIFIC be-
cause it does not inflect for number and humanness, is homophonous (and
probably syntactically identical) with the temporal conjunction *kɔ̃N* de-
scribed in §1.1.2.4.2.1 below. When it is not the subject of the relative
clause, it almost always inverts with a full NP subject of the relative
clause, optionally with a disjunctive (free) pronoun subject, but only rarely
with a clitic pronoun subject. An example of inversion with a full NP is
given in (116), and an example of optional inversion and non-inversion
with a disjunctive pronoun in (117), which is drawn from spontaneous but
formal speech. The first version of the headless relative clause, *kɔ̃ məkɔ
tıgɛ ɉıka nɛ sa nɛŋgɛ* contains (uninverted) *kɔ̃ məkɔ*; but when it is repeated
as *məkɔ kɔ̃m bakɛ* the order is (inverted) *məkɔ kɔ̃m.*

(116)  a    dãnakɔ̃na    pota    la    wɛ̃ dãŋ        dom    a    bɔrɔ
        ART.  mouse + PL.  many  EMPH.  be  house + SG.  one  ART.  man + SG.

        hoŋ           kɔ̃n              dole        joro
        DET. HUM. SG.  NON-SPEC. REL.  buy + PAST  in (POSTPOS.)

        'There are a lot of mice in the house that the man bought.'

(117)  a    tomʌ        la        pɔtʊ    la    kɔ̃           məkɔ
        ART.  work + PL.  COPULA  many  and  NON-SPEC. REL.  DISJ. PRON. 1SG.

        tıgɛ        ɉıka        nɛ          sa    nɛŋgɛ  məkɔ
        put/do + PAST  face + SG.  at (POSTPOS.)  now  thus  DISJ. PRON. 1SG.

        kɔ̃m          bakɛ        bakɔ             la    bakı
        NON-SPEC. REL.  do + PAST  DISJ. PRON. 3PL. HUM.  EMPH.  do

        'There is a lot of work, and what I have done now in front of you, what I have
        done, they have done.'[10]

There also exist rare cases of non-inversion with a full NP, of which an example is given in (118) (taken from the same text as (117)); here the order *a fo kɔ̃(nɔ̃)* would be expected instead of actual *kɔ̃nɔ̃ a fo*. However, the NP *a fo* is semantically quite pronoun-like, and is used in a similar way to French *on* or German *man*. Here *kɔ̃nɔ̃* is headless.

In (119), which immediately follows (118) in the text, the proclitic subject pronoun *ba* (attached to the adverb *mɔ̃*) and *kɔ̃N* are inverted. In this sentence *kɔ̃N* could be interpreted as a conjunction 'when/since' or as a relative pronoun.

(118)  ke              kɔ̃nɔ̃              a      fo          kɔ̃ndɛ
        because (CONJ.)   NON-SPEC. REL.   ART.   person + SG.   find + PAST

        gʊkɔ                    m                bakrɪ.
        PRON. 3SG. NON-HUM.   PRON. 2SG.[11]   do + DUR.

        'For what a person finds (at birth), that he does.'

(119)  ba                   mɔ̃      kɔ̃m                                      bɛnɛ
        PRON. 3PL. HUM   also   when/since (CONJ.) *or* NON-SPEC. REL.   come + PAST

        nɛŋgɛ  ʊ              ba      dɛɪ          ʊ              gɔm      ba
        thus    PRON. 1PL.   NEG.   be able   PRON. 1PL.   chase   PRON. 3PL. HUM

        sã
        tomorrow

        'Now that they too have come like this, we cannot chase them away tomorrow.'
        *or* 'Those who have come like this we cannot chase away tomorrow.'

This phenomenon involving *kɔ̃N* is the only case of conjunction-NP (or relative-NP) inversion that I know of in Koromfe. The relative order of the clauses is irrelevant. A further example of this inversion is given in (125). Note the similarity with the topicalized subject in (123), which seems to be the source of this inversion.

The relative pronoun may not be within a pre-/postpositional phrase in the relative clause (e.g. English *for whom* or *in which*). This means that (114) above is the only way to relativize a benefactive of a verb like 'give' (which optionally takes the postposition *nɛ*).

*1.1.2.3.6 Headless relative clauses*

Headless relative clauses occur both with the non-specific, e.g. (120), and the specific relative pronoun, e.g. (121).

(120)    mə        hɛ̃msɛ       ala              ba    boŋ   mɛ
         PRON. 1SG.   meet + PAST   who (SG. REL.)   NEG.   like   PRON. 1SG.
         'I met (someone) who doesn't like me.'

(121)    kɔ̃n            də           zɔmmɔ̃      koŋgo                kon
         NON-SPEC. REL.   PRON. 3SG.   want + DUR.   LONG DET. NON-HUM. SG.   put

         a      lurgo      koŋ               sɛ̃ŋa             nɛ
         ART.   wall + SG.   DET. NON-HUM. SG.   backside + SG.   at (POSTPOS.)

         'What he wants is leaning against the wall.' *(lit.:* '...has been put against the wall', *with a passive reading)*

Interestingly, a headless relative clause can also form the head of a noun-phrase that is further modified (e.g. in sentence (122) by the DETERMINER *beŋ* 'those' and the QUANTIFIER *durʊ* 'all')

(122)    bənəma        tufu      beŋ          durʊ   bo   ke          (...)
         who (PL. REL.)   sit + DUR.   DET. HUM. PL.   all    say   that (CONJ.)   (...)
         'All those who were sitting said (...).'

### 1.1.2.3.7 Elements that can be relativized

Only bare NPs (i.e. subject, direct and indirect object) can be relativized. I was unable to elicit or find a case where a pre-/postpositional phrase was cleanly or clearly relativized; the range of paraphrases is wide. Of course, the NP of a PP can contain a relative clause, as was seen in (116) above. Otherwise, any noun which is susceptible to a restrictive reading of the relative clause can be relativized (therefore, most proper nouns cannot). This applies to constituents of main clauses, subordinate clauses, noun phrases, prepositional phrases and elements of coordinate structures. It is also possible to relativize more than one thing in a sentence.

### 1.1.2.3.8 Other elements of the clause that can be moved with the relativized element

Nothing else can be moved to the clause-initial position along with the relativized element. Since no part of a prepositional phrase can be relativized, there are hardly any candidate elements for such movement.

### 1.1.2.3.9 Non-finite relative clauses

There are no non-finite relative clauses. The participial adjectives (cf. §2.1.4.3.1) come closest to relative clauses, but correspond to non-

restrictive relative clauses — which do not exist in Koromfe. A participial adjective never has any object or other element with which it could be considered to form a clause-like structure.

### 1.1.2.4 Adverb clauses

### 1.1.2.4.1 General properties of adverb clauses and their position relative to their superordinate clause

Adverb clauses are generally introduced with a conjunction, though some are not — see the individual types given below for details. However, clause coordination (juxtaposition) also often express notions which in languages like English are expressed by adverb clauses, especially temporal adverb clauses. An adverb clause can precede or follow the main clause, but must follow a topic NP (if present) — compare (123), where *mə sa hoŋ* 'my father' is the topic NP, with (124).[12]

(123)　mə　　　　　sa　　　　hoŋ　　　　kɔ̃n　　do　　　　　　dɛ
　　　　PRON. 1SG.　father + SG.　DET. HUM. SG.　when　PRON. 3SG. HUM.　eat + PAST

　　　　do　　　　　　　kɛndɛ　　　lɛ　　do　　　　　　　wɔ̃faa
　　　　PRON. 3SG. HUM.　finish + PAST　thus　PRON. 3SG. HUM.　have + PROG.

　　　　(a)　　　　　gondʌm
　　　　ART. (*elided*)　leave + GERUND

　　　　'When **my father** had finished eating he left.'

### 1.1.2.4.2 Types of adverb clause

### 1.1.2.4.2.1 Time

In general, a temporal adverb clause is introduced with the conjunction *kɔ̃N* 'when' (which is homophonous with the non-specific relative pronoun). This is the usual construction for past-tense narrative type sentences like (124).

(124)　kɔ̃n　do　　　　　　dɛ　　　　do　　　　　　kɛndɛ　　　lɛ
　　　　when　PRON. 3SG. HUM.　eat + PAST　PRON. 3SG. HUM.　finish + PAST　thus

　　　　do　　　　　　　wɔ̃faa　　　　(a)　　　　　gondʌm
　　　　PRON. 3SG. HUM.　have + PROG.　ART. (*elided*)　leave + GERUND

　　　　'When he had finished eating he left.'

There exists a special variant of this construction in which the conjunction *kɔ̃N* and the subject of the temporal adverb clause are inverted if the subject is not a (clitic) pronoun. This inversion is the same one that

occurs with the homophonous relative pronoun *kɔN* described in §1.1.2.3.5 above. It is almost obligatory for non-pronominal NPs and for the determiners/demonstratives when used alone as an anaphoric pronoun (cf. §1.5.1.6 below), but it is quite rare for clitic pronouns, because they need something to cliticize to (cf. (119) above); the disjunctive pronouns can optionally invert or not. See §1.1.2.3.5 above for further details on this inversion.

(125)    mə        sa          kɔn          tɛrɛ            ʊ         dɪ
            PRON. 1SG.   father + SG.   when (CONJ.)   arrive + PAST   PRON. 1PL.   eat

            'When my father arrived we ate.'

The temporal clause construction is often replaced by the conditional adverb clause, as in (126), or a coordinate main clause, as in (127)–(129), particularly when the tense changes. Sentence (126) shows what in other languages is a 'future perfect' tense relationship, with the verb 'come' used as an auxiliary. The choice of the past tense for 'come' is dictated by the conditional construction (see §1.1.2.4.2.5 below). Sentences (127)–(128) show the use of a coordinate main clause when the durative or iterative aspect is involved ('while'); here the relative order of the clauses has no semantic effect, but the PROGRESSIVE has to be expressed on the verb of the first coordinated clause, and the second verb defaults to DURATIVE.

(126)    mə        bɛnɛ        dɪ   mə        kɛndɪ mə         gondrʌʌ
            PRON. 1SG.   come + PAST   eat   PRON. 1SG.   finish   PRON. 1SG.   leave + PROG.

            'When I will have finished eating I will leave.'

(127)    də              dɪraa        la   də            wɔlɔmɔ
            PRON. 3SG. HUM.   eat + PROG.   and   PRON. 3SG. HUM.   speak + DUR.

            'He spoke while he was eating.' *(Lit:* 'He was eating and he was speaking.'*)*

(128)    də              wɔlɔmaa     la   də            dɪrɪ
            PRON. 3SG. HUM.   speak + PROG.   and   PRON. 3SG. HUM.   eat + DUR.

            'He spoke while he was eating.' *(Lit.:* 'He was speaking and he was eating.'*)*

The use of the PROGRESSIVE aspect in (127)–(128) deserves further comment, since it shows that the temporal usage of this inflectional form for 'present and/or future', although statistically the most common, is only secondary.[13] Sentence (129) shows that the adverb *da* can be used for clarification.

(129)  də                    da                diraa          la   də
      PRON. 3SG. HUM.   in the past (ADV.)   eat + PROG.   and  PRON. 3SG. HUM.

      wɔlɔmɔ̃
      speak + DUR.

      'He spoke while he was eating.'

Koromfe does not have the variety of temporal conjunctions that can be found in other languages; if needed, nouns are used as temporal adverbs to specify the temporal relations more precisely, as shown in (130)–(132), where *sɔ̃ɔ̃nɛ* and *sɔ̃ɔ̃nɛ koŋgo* mean 'at that time' and *sɔ̃ɔ̃nɛ dʋrʋ* 'every time'.

(130)  kɔ̃n            də                    da                samma
      when (CONJ.)   PRON. 3SG. HUM.   in the past (ADV.)   wash + PROG.

      də                    wãna        sɔ̃ɔ̃nɛ       də                    kure
      PRON. 3SG. HUM.   hand + PL.   time + SG.   PRON. 3SG. HUM.   begin + PAST

      drʋ
      eating/food + SG.

      'The moment he had washed his hands he started eating.'

(131)  kɔ̃n            də                    dir(i)         sɔ̃ɔ̃nɛ
      when (CONJ.)   PRON. 3SG. HUM.   eat + DUR.     time + SG.

      koŋgo                        də                    wɔlɔmaa
      LONG DET. NON-HUM. SG.   PRON. 3SG. HUM.   speak + PROG.

      'He spoke while he was eating.'

(132)  kɔ̃n            də                    jɔ̃    (a)            hɛ̃nam
      when (CONJ.)   PRON. 3SG. HUM.   drink  ART. (*elided*)   millet beer (SG.)

      sɔ̃ɔ̃nɛ       dʋrʋ   də                    kirʌʌ
      time + SG.   every  PRON. 3SG. HUM.   go mad + PROG.

      'Whenever he drinks millet beer he gets violent.'

The only other temporal conjunction in Koromfe is *hal* 'until', and its usage is unspectacular. It does not support conjunction-NP inversion, as can be seen from example (133). In addition to this usage, *hal* can also be used as a temporal and local preposition with the meaning 'up to, as far as', also in conjunction with adverbs of quantity such as *wasi* and *kesem*.

(133)  dəkɔ                    tufʌʌ      jere  də                 gɔm   a
       DISJ. PRON. 3SG. HUM.   sit + PROG. here  PRON. 3SG. HUM.   chase  ART.

       gɪgaaja       la    kãŋ          kãã   hal    a      bara
       vulture + PL.  and   thing + SG.   every  until  ART.   husband + SG.

       hoŋ              wɔ̃ŋgʊ  də                 ja    kɛndɪ
       DET. HUM. SG.    rot      PRON. 3SG. HUM.   go    finish

       'She was going to sit here and chase away the vultures and all animals until the
       husband finished rotting.'

This paucity of temporal conjunctions means that the notions of 'before' and 'after', which in English or German are expressed by conjunctions or adverbs, are expressed by an auxiliary verb within a sequence of clauses coordinated by juxtaposition. Sentence (134) exemplifies *tɛ̃ŋsam* ('to do something later'). Similar usages can be found with verbs such as *faram* 'to do something first', *fɛ̃faa* 'continue',[14] *gɔɔm* '(come back and) do something again', *homsʌm, jãgam* 'to do something quickly', and the verbs of possession like *hɔ̃ŋ(ɔ̃)nam, wɔ̃faa* (meaning 'do something repeatedly').

Note that other verbs with similar lexical meanings to not have this kind of auxiliary function, e.g. *kurʌm* 'begin' and *kɛndam* 'finish'. Instead, *kurʌm* takes a gerund or verbal noun as its object, as in (130) above, and always means 'begin X-ing' (never 'be the first to X'), while *kɛndam* can be the last in a sequence of clauses and means 'finish X-ing', where X is the meaning of the verb of the previous clause(s), as shown in (133) above.

(134)  də                 sammaa       də                 wãna       la
       PRON. 3SG. HUM.    wash + PROG.  PRON. 3SG. HUM.   hand + PL.  and

       də                 tɛ̃ŋsɪ       də                 dɪ
       PRON. 3SG. HUM.    do later     PRON. 3SG. HUM.   eat

       'He washed his hands and then he ate.'

*1.1.2.4.2.2 Manner*

The most common adverb clauses of manner in Koromfe involve the equative particle (preposition?) *mbʌʌ* 'like, as' and/or the equative adverb *kãnã* 'like' in conjunction with a subordinate clause introduced by *kɔ̃N* (which might be interpreted as a generalized temporal clause). Full adverb clauses are given in (135)–(136).

(135)  bʌdini          bɛllaa          tau tau mbʌʌ kemde
       *(proper name)*  come + PROG. fast fast  like   *(proper name)*

       kɔ̃m      bɛ     lɛ    kãnã
       when (CONJ.)  come  thus  like

       'Badini comes fast, just as Kemde comes.'

(136)  də              dɪraa       kɔ̃n           də
       PRON. 3SG. HUM.  eat + PROG.  NON-SPEC. REL.  PRON. 3SG. HUM.

       zɔmmɔ̃      kãnã
       want + DUR.  like

       'He eats as he wants.' *(I.e. 'He has bad eating habits.')*

Very often, such clauses are abbreviated to *mbʌʌ* + SUBJECT-NP, since the verb (phrase) of the second clause is a repetition of that of the main clause. In such cases (exemplified in (137)–(138)) the word *mbʌʌ* behaves syntactically like a preposition.

(137)  bʌdini          bɛllaa          tau tau mbʌʌ kemde
       *(proper name)*  come + PROG. fast fast  like   *(proper name)*

       'Badini comes fast, like Kemde.'

(138)  də              horʌʌ       mbʌʌ  (a)           jergʌ
       PRON. 3SG. HUM.  run + PROG.  like   ART. *(elided)*  rabbit + SG.

       'He is running like a rabbit.'

Adverb clauses of this type are also used as equatives.

### 1.1.2.4.2.3 Purpose

The expression of adverb clauses of purpose in Koromfe can be quite simple (and parallel to English and German constructions) using the conjunctions *ke* (positive — example 139) or *ka* (negative — examples 140–141).

(139)  də              pa    a    jãna        a    kɛ̃ɔ̃
       PRON. 3SG. HUM.  give  ART. millet + PL.  ART. woman + SG.

       hoŋgo               ke          də              pa    a
       LONG DET. HUM. SG.  that (CONJ.)  PRON. 3SG. HUM.  give  ART.

       kaka              nɛ
       grandfather + SG.  to/for (POSTPOS.)

       'He gave the millet to the woman so that she give (it) to grandfather.'

(140) də          gondu ka         n
PRON. 3SG. HUM.   leave   that + NEG. (CONJ.)   PRON. 2SG. NON-SPEC.

tıkı       la      mə      sa      kɔ̃ndə dı           jere
do + DUR.   EMPH.   PRON. 1SG.   father + SG.   find    PRON. 3SG. HUM.   here

'He left to escape my father.' *(Lit.:* 'He left that it not be done that my father find him here'*)*

(141) də          horʌʌ      ka             (a)        dumdɛ
PRON. 3SG. HUM.   run + PROG.   that + NEG. (CONJ.)   ART. *(elided)*   lion + SG.

bɛ    jɛ̃ı̃    dı
come   catch   PRON. 3SG. HUM.

'He is fleeing so that the lion doesn't catch him.'

In addition, however, it is quite usual to find a simple juxtaposition of clauses used to express purpose, as shown in (142).[15]

(142) də          horʌʌ      də          zɔmmɔ̃
PRON. 3SG. HUM.   run + PROG.   PRON. 3SG. HUM.   want + DUR.

də           gıllɛ
PRON. 3SG. HUM.   self (SG.)

'He is running to save his life.' *(Lit.:* 'He is running, he wants his self'*)*.

Also, there are typical constructions for verbs of motion which do not require the conjunction *ke*. In (143) the purpose clause is apposed to the main clause, and contains a 'go do'-type verbal complex *ja bele* (similar to the *bɛ jɛ̃ı̃* 'come and catch' in (141) above), which here repeats the verb *jakaa* of the first clause, but in the unmarked form.

(143) ʊ         jakaa      daaga      nɛ          ʊ       ja   bele
PRON. 1PL.   go + PROG.   market + SG.   to (POSTPOS.)   PRON. 1PL.   go   sell

ʊ         jã̃na
PRON. 1PL.   millet + PL.

'We will go to the market to sell our millet.'

*1.1.2.4.2.4 Cause*

The conjunction *ke* is also used in the sense of 'because', as shown in (144).

(144)  də            horʌʌ        ke                    (a)              dʊmdɛ
       PRON. 3SG. HUM.  run + PROG.  that/because (CONJ.)  ART. (*elided*)  lion + SG.

       la      gɔmmə        dɪ
       EMPH.   chase + DUR.  PRON. 3SG. HUM.

       'He is running because a lion is chasing him.'

There also exist two special conjunctions *baadɪ* and *sabədɛ*, which are very rare and seem, phonologically, to be loans (because phonetic [d] never occurs in these contexts). The phonological similarity of these two forms is striking and probably indicates a common source. When they are used, the construction is the same as with *ke*. A single example is given below, taken from my Koromfe text collection. The word *sabədɛ* could be replaced with *baadɪ* or with *ke* without changing the sense of the sentence.

(145)  gʊ                 jãŋ    la      sabədɛ            mə
       PRON. 3SG. NON-HUM.  seem  EMPH.  because (CONJ.)   PRON. 1SG.

       barəkɛ̃ɔ              dono            hoŋ               mɔ̃    mə          dʊgə
       co-wife[16] + SG.  comrade + SG.  DET. HUM. SG.   also  PRON. 1SG.  leave

       dɪ                 də                 tufu          də                 hɛrga
       PRON. 3SG. HUM.   PRON. 3SG. HUM.   sit + DUR.    PRON. 3SG. HUM.   side + SG.

       ze
       there

       'It seems (to be so), because my co-wife, when I left him/her, was sitting there next to him.'[17]

### 1.1.2.4.2.5 Condition

There is no conditional conjunction in Koromfe corresponding to English *if*. Instead, the verbal inflection indicates that the clause is conditional. The pre-verbal adverb *maanɛ*, which occurs in some conditional clauses, cannot be considered to be a conjunction, since a) conjunctions do not occur in this position (pace the class of temporal adverb clauses described in §1.1.2.4.2.1, esp. example (125)), and b) this word is optional. I therefore gloss it as 'only' in example (146). In natural speech, a conditional clause usually precedes the main clause, but my informants were equally happy with the reversed order. Examples (149)–(150) below show both orders.

It is useful to consider conditional clauses under the sub-headings of 'real' and 'unreal' conditions,[18] since these have different verbal morphology.

## *1.1.2.4.2.5.1 Real conditions*

Real conditions are conditions which might imaginably still be fulfilled. In real conditions, no distinction is made within the conditional clause between future and present conditions. The conditional clause has a PAST verb form. In the main clause, however, time can be distinguished by the use of a PROGRESSIVE verb form to indicate future time, in examples (146)–(147) or an UNMARKED form, in example (148), to indicate general time (or timelessness).

(146)  dǝ                kɔ̃nnaa         dǝ                    maanɛ  zɔgɔlɛ
        PRON. 3SG. HUM.  escape + PROG.  PRON. 3SG. HUM.  only    climb + PAST

        (a)              fɛkʊ
        ART. (*elided*)  tree + SG.

        'He will escape if he only climbs a tree.'

(147)  m             bɛnɛ         sã         ʊ        jakaa       daaga
        PRON. 2SG.  come + PAST  tomorrow  PRON. 1PL.  go + PROG.  market + SG.

        'If you come tomorrow, we will go to the market.'

(148)  dǝ                zɔgɔlɛ      (a)        fɛkʊ      dǝ
        PRON. 3SG. HUM.  climb + PAST  ART. (*elided*)  tree + SG.  PRON. 3SG. HUM.

        da     dǝ            gɪllɛ
        gain  PRON. 3SG. HUM.  self (SG.)

        'If he climbs a tree he will save his life.' *or* 'If he climbed a tree he would save his life.'

## *1.1.2.4.2.5.2 Unreal conditions*

Unreal conditions can no longer imaginably be fulfilled. In Koromfe there is a special UNREAL verbal suffix *ŋaa*, which is always added to the DURATIVE form of the verb. Note that this suffix could not be an independent word because no word can begin with a velar nasal [ŋ] followed by a vowel (cf. §3.2.1.2.1 below). The verb of the main clause is always in the PROGRESSIVE form.

(149)  daa                   sɪbraa      dǝ            zɔgfǝŋaa
        NEG. PRON. 3SG. HUM.  die + PROG.  PRON. 3SG. HUM.  climb + UNREAL

        (a)              fɛkʊ
        ART. (*elided*)  tree + SG.

        'He would not have died if he had climbed a tree.'

(150)  də                    zɔgfəŋaa       (a)       fɛkʊ
       PRON. 3SG. HUM.  climb + UNREAL  ART. (*elided*)  tree + SG.

       daa                    sɪbraa
       NEG. PRON. 3SG. HUM.  die + PROG.

       'If he had climbed a tree, he would not have died.'


### 1.1.2.4.2.6 Result

Adverb clauses of result do not exist in their own right. Instead, the temporal conjunction *hal* 'until' can be used (as shown in (151), where *kesem* 'much' is usual, though not obligatory), or the result clause simply apposed to the 'main' clause (as shown in (152)).

(151)  də                ho   kesem       hal    də                wargɛ
       PRON. 3SG. HUM.  run  much (ADV.)  until  PRON. 3SG. HUM.  be tired + PAST

       'He ran so much that he was tired.' (*Lit.:* 'He ran much until he was tired.'*)*

(152)  a      senəbʌ            bɛŋ              wɔl   hal   kesem  ba
       ART.  young man + PL.   DET. HUM. PL.   work  until  much  PRON. 3PL. HUM.

       kɛndɪ  taʊ  taʊ
       finish fast fast

       'The young people worked so much that they were finished fast.'

But such clauses are also often not explicitly marked as being resultative within a sequence of clauses like example (153).

(153)  baa                  kɔ̃ndə  fãã       ba              wilet(i)
       NEG. PRON. 3PL. HUM.  find   anything  PRON. 3PL. HUM.  turn round

       ba               gondu
       PRON. 3PL. HUM.  leave

       'They didn't find anything so they turned round and left.'


### 1.1.2.4.2.7 Degree 1. Comparative, 2. Equative

Full adverb clauses of degree hardly occur in spontaneous speech. It is possible to construct full comparative adverb clauses in Koromfe, as shown in examples (154)–(155) below. However, these sentences all have a strong flavour of artificiality (e.g. *kɔ̃nɔ̃* in (154) instead of assimilated *kɔ̃m*, and the resumptive *gʊ* in (155)). The comparative part of these sentences is the verb *kɛ̃* 'exceed', which is used for all comparison in

Koromfe (i.e. also of adjectives); the compared clauses are simply head-less relative clauses.

(154)   kɔ̃nɔ̃          ba                 ŋgose   jere  kɛ̃     kɔ̃nɔ̃
        NON-SPEC. REL.   PRON. 3PL. HUM  be absent  here  exceed  NON-SPEC. REL.

        ba               wɛ̃  jere
        PRON. 3PL. HUM  be  here

        'They are absent more than they are present.'

(155)   mə         jɔ̃ɔ̃ndɔ            kɔ̃n           dɪrɪ        kɛlaa
        PRON. 1SG.  elder sibling + SG.  NON-SPEC. REL.  eat + DUR.  exceed + PROG.

        mə         jã          kɔ̃           hotu         go
        PRON. 1SG.  mother + SG.  NON-SPEC. REL.  cook + DUR.  PRON. 3SG. NON-HUM.

        'My brother eats more than my mother cooks.'

Equative adverb clauses such as (156) sound slightly less artificial, but never occurred in natural speech in my corpus. In this construction, only the equated clause is a headless relative clause, and there is a true main clause. The order of clauses cannot be reversed.

(156)   kɔ̃nɔ̃        mə        zɔmmɔ̃    mə        sa         lɛ    kãnã
        NON-SPEC. REL.  PRON. 1SG.  like + DUR.  PRON. 1SG.  father + SG.  thus  how

        mə        zɔmmɔ̃    mə        jã
        PRON. 1SG.  like + DUR.  PRON. 1SG.  mother + SG.

        'I love my father as much as I love my mother.'

On the other hand, adverb clauses of manner (as described in §1.1.2.4.2.2) are frequently used as equatives.

### 1.1.2.4.3 Non-finite adverb clauses

Non-finite adverb clauses only occur marginally: Adverb clauses of pur-pose can in many cases be replaced by a GERUND (or deverbal ACTION NOUN — cf. §2.2.1.2.0.2 for the relevant morphology) followed by the postposition *nɛ* in the meaning 'for'. A simple example is (157):

(157)   a    dɪo             nɛ             dɔ
        ART.  eat (ACTION NOUN)  for (POSTPOS.)  NEG. COPULA

        'It's not for eating.'

The gerund in this construction can also be the second member of a compound NP (with the structure NP+N), where the first member is the (former) direct object NP of the verb. In (158) the whole NP *a fãĩ koŋ* 'the

millet porridge' is the first member of the compound and the noun *konʌm* the second.

(158)  a        fãĩ                    koŋ                    konʌm
       ART.  millet porridge + SG.  DET. NON-HUM. SG.  put down + GERUND

       ne                da                  bɛnɛ
       for (POSTPOS.)  PRON. 3SG. HUM.  come + PAST

       'He/she came to put down the millet porridge.'

With verbs of motion it is possible, and quite usual, to omit the post-position *nɛ*. This is shown in example (159).[19]

(159)  ba               jaʊ  tubre                 a     toqre
       PRON. 3PL. HUM.  go   in(to) the bush (ADV.)  ART.  baobab + SG.

       kekʌm
       cut + GERUND

       'They went into the bush to cut baobab.'

Finally, for completeness' sake, §1.1.2.4.3.1–7 of the questionnaire are answered explicitly for this one construction in the following paragraph.

All verbal categories are lost. The finite verb is replaced by the gerund or (preferably, if there is one) deverbal action noun, e.g. *dɪʊ* 'eating' rather than *dɛɛm*, but always *lebʌm* 'build, construct' because this verb has no (other) action noun. All arguments of the verb must be omitted apart from the direct object, which can optionally be kept in the form of the first member of a compound noun-phrase (NP+N), of which the gerund / action noun is the second member. Adverbs do not occur in such constructions.

### 1.1.2.5 Sequence of tenses

There is no sequence of tenses as such (and therefore §1.1.2.5.1 is inapplicable), although it is rare to find a concatenation of PAST or PROGRESSIVE tenses in a complex sentence because of their aspectual incompatibility. The PAST defaults to the UNMARKED tense and the PROGRESSIVE to the DURATIVE. See §2.1.3.2 below on tense and §2.1.3.3 on aspect.

# 1.2 Structural questions

## 1.2.1 Internal structure of the sentence

### *1.2.1.1 Copular sentences*

### *1.2.1.1.1 Copular sentences with nominal complement*

### *1.2.1.1.1.1 The be-copulas*

There exist two overt be-copulas: *la* (positive) and *dɔ* (negative), and they are obligatory in copular sentences. These copulas have no other inflectional forms.

### *1.2.1.1.1.2 Marking of the predicate noun*

There is no special marking on the predicate noun.

### *1.2.1.1.1.3 The order of the constituents*

In a non-topicalized, non-emphatic sentence, the order of constituents is $NP_1$-copula-$NP_2$, whereby $NP_1$ is usually the subject of the copula and $NP_2$ its complement, as shown in (160). However, when the subject is a personal pronoun, the order of subject and complement can be reversed: (161) can just as easily be realized as (162).[20]

(160)  mə            segtʌ         la        sawadɔgɔ
       PRON. 1SG.    family name   COPULA    (*proper name*)

       'My family name is Sawadogo.'

(161)  mə            la        (a)          jɔ
       PRON. 1SG.    COPULA    ART. (*elided*)   chief + SG.

       'I am the chief.'

(162)  a       jɔ              la        mɛ
       ART.    chief + SG.     COPULA    PRON. 1SG.

       'I am the chief.' *(Lit.: 'The chief is me.')*

There also exists a special NEGATIVE COPULA, *dɔ*, exemplified in (163), which behaves syntactically in the same way as its positive counterpart. It is impossible to use a negative pronoun or the negative particle *ba* in conjunction with *la*; instead, *dɔ* must be used.

(163)  mə           bɔrɔ         dɔ           (a)         senəbʌ
       PRON. 1SG.   man + SG.   NEG. COPULA   ART. (*elided*)   young person + PL.

       jɔ
       chief + SG.

       'My friend is not the chief of the young people.'

It would be unfair not to mention here that these copula sentences could also be analysed as involving an emphasized NP (i.e. the structure NP-*la* or NP-*dɔ*) followed by an NP, with no copula at all. (The same words *la* and *dɔ* are used for positive and negative emphasis — cf. §1.11 below.) However, if this alternative analysis is correct, then we should expect to find somewhere in Koromfe a copula sentence with no overt copula; but this is precisely what we never find.

Moreover, this alternative analysis also has problems with topicalized copula sentences, which (I believe) have the structure NP$_{\text{TOP}}$ NP *la*.[21] Examples corresponding to (160)–(163) are given in (164)–(167). (Note that in (165) and (166) the disjunctive pronoun *məkɔ* must be used for the topicalized versions).

(164)  mə           segtʌ             sawadɔgɔ        la
       PRON. 1SG.   family name (*proper name*)   COPULA

       'My family name is Sawadogo.' *(Lit.:* '**My name** Sawadogo is.'*)*

(165)  məkɔ              (a)               jɔ           la
       DISJ. PRON. 1SG.   ART. (*elided*)   chief + SG.   COPULA

       'I am a chief.' *(Lit.:* '**I** the chief am.'*)*

(166)  a     jɔ              məkɔ              la
       ART.   chief + SG.   DISJ. PRON. 1SG.   COPULA

       'I am a chief.' *(Lit.:* '**The chief** I am.'*)*

(167)  mə           bɔrɔ         (a)               senəbʌ              jɔ
       PRON. 1SG.   man + SG.   ART. (*elided*)   young person + PL.   chief + SG.

       dɔ
       NEG. COPULA

       'My friend is not a "chief of the young people".' *(Lit.:* '**My friend** a "chief of the young people" is-not'*)*

The copulas *la* and *dɔ* have no other inflectional forms. However, it is possible to refer to past time by the addition of the adverb *a nɛ̃ɛ̃* 'the past', as shown in (168).[22]

(168)  mə          sa          a    jɔ          la      (a)           nɛ̃ɛ̃
      PRON. 1SG.  father + SG.  ART.  chief + SG.  COPULA  ART. (*elided*)  past
      'My father was chief.'

In addition to *la* and *dɔ*, the verb *tɩgam* 'put, do, be' can be used in the function of the copula in tenses other than the present. A selection of examples follows. In (169) the past tense is expressed by the adverb *da*, and the verb *tɩ* in the unmarked form, in (170) by both *da* and the PAST inflection on *tɩgɛ*. For the future copula either the auxiliary *bɛllaa* 'come + PROG.' with unmarked *tɩ* is used (example 171), or the progressive form of *tɩ*, namely *tɩkaa* (example 172).

(169)  mə          bɔrɔ        da                tɩ   a²³    senəbʌ
      PRON. 1SG.  man + SG.    in the past (ADV.)  be   ART.  young person + PL.

      jɔ
      chief + SG.

      'My friend was the chief of the young people.'

(170)  mə          sa          da          ba     tɩgɛ        (a)
      PRON. 1SG.  father + SG.  past (ADV.)  NEG.  be + PAST  ART. (*elided*)

      jɔ
      chief + SG.

      'My father was not chief.'

(171)  mə          sa          bɛllaa        tɩ   a²³   jɔ
      PRON. 1SG.  father + SG.  come + PROG.  be   ART.  chief + SG.
      'My father will be chief.'

(172)  mə          sa          ba    tɩkaa      (a)           jɔ
      PRON. 1SG.  father + SG.  NEG.  be + PROG.  ART. (*elided*)  chief + SG.
      'My father will not be chief.'

### 1.2.1.1.2 Copular sentences with adjectival complement

In Koromfe, adjectives are either nominal or verbal. The latter clearly cannot have a copula because they are themselves verbs. The following subsections therefore concern nominal adjective complements only.

### 1.2.1.1.2.1 The be-copula

Precisely the same obligatory be-copulas *la* (positive) and *dɔ* (negative) that are used with noun complements are also (obligatorily) used with adjectival complements. These copulas have no other inflectional forms.

### 1.2.1.1.2.2 Marking of the complement adjective

There is no special marking of the complement nominal adjective.

### 1.2.1.1.2.3 The order of the constituents

The nominal adjectives, being nouns, behave just like other nouns, except that they are more often found after the copula than before it, and the 'topicalized' word order is the most usual one. The order of constituents is therefore as described in §1.2.1.1.1.3 above. Number agreement is obligatory if the adjective inflects for number. Examples are given in (173)–(176).

(173)  dǝ                  luɲi      (a)          bĩnĩã          la
       PRON. 3SG. HUM.   cat + PL.  ART. (*elided*)  black + PL.   COPULA

       'His cats are black.'

(174)  mǝ       ɟɔ̃ɔ̃ndɔ              (a)          dɔɔrɛ       dɔ
       PRON. 1SG.  elder sibling + SG.  ART. (*elided*)  tall + SG.  NEG. COPULA

       'My brother is not tall.'

(175)  a       luko      koŋ                a       bĩnĩŋ       la        — a
       ART.   cat + SG.  DET. NON-HUM. SG.  ART.   black + SG.  COPULA    — ART.

       wãnãŋ              dɔ              go
       spotted + SG.  NEG. COPULA  PRON. 3SG. NON-HUM. SG.

       'That cat is black — it is not spotted.'

(176)  mǝ       ɟɔ̃ɔ̃ndɔ              da             ba    tɪg   a      dɔɔrɛ
       PRON. 1SG.  elder sibling + SG.  in the past  NEG.  be   ART.  tall + SG.

       'My brother wasn't tall.'

### 1.2.1.1.3 Copular sentences with adverbial complement

The only kind of sentence with an adverbial complement is that with a locative adverbial complement.

*1.2.1.1.3.1 The be-copula*

There exist different, but still obligatory be-copulas for adverbial local adverbial complements; the copulas *la* (positive) and *dɔ* (negative) cannot be used. Instead, the verb *wɛ̃* is used in the appropriate inflectional form. In contrast with *la* and *dɔ*, which have no other inflectional forms, this verb has all inflectional forms apart from a gerund, although the PAST and UNMARKED forms are homophonous (for quite regular phonological reasons: the *-ɛ* suffix merges with the stem vowel *ɛ̃*). The negative counterpart of *wɛ̃* is *ŋgo* or *ŋgose*, which has only these two forms (the first being UNMARKED and the second probably PAST). As with *la* and *dɔ*, the positive verb *wɛ̃* cannot be used with a negative pronoun or particle; instead, *ŋgo* must be used.

*1.2.1.1.3.2 Marking of the complement adverbial*

The complement adverbial has no special marking.

*1.2.1.1.3.3 The order of the constituents*

The order of constituents is NP-COPULA-ADVERBIAL, exemplified in (177)–(181). The adverbial can optionally be emphasized, giving the structure ADVERBIAL$_{EMPH}$-NP-COPULA, exemplified in (182).

(177)  də                          wɛ̃  dãã̃nɛ
       PRON. 3SG. HUM.  be   at home

       'He is at home.'

(178)  lugəni    ĵɔ̃ɔ̃nɛ       bĩnĩ̃ʌ       tãã   tam    hɛ̃ŋ
       cat + PL.  small + PL.  black + PL.  three  lose[24]  DET. NON-HUM. PL.

       wɛ̃naa      jere
       be + PROG.  here

       'Those three small lost black cats are here.'

(179)  də                          da              wɛ̃nɛ       jere  kɔ̃m              bakɪ
       PRON. 3SG. HUM.  in the past  be + DUR.  here  NON-SPEC. REL.  make

       lɛɛrəma    hĩ̃
       hour + PL.  two

       'He was here 2 hours ago.'

(180) | də | ŋgo | dããnɛ
--- | --- | --- | ---
 | PRON. 3SG. HUM. | not be | at home

'He isn't at home.'

(181) | də | ŋgose | kɛkʊ | nɛ
--- | --- | --- | --- | ---
 | PRON. 3SG. HUM. | not be | field + SG. | in (POSTPOS.)

'He wasn't in the field.'

(182) | məkɔ | dãŋ | jɪka | nɛ | də
--- | --- | --- | --- | --- | ---
 | PRON. 1SG. | house + SG. | face + SG. | at (POSTPOS.) | PRON. 3SG. HUM.

| dãŋ | wɛ̃
--- | ---
house + SG. | be

'My house is opposite his house.'

### 1.2.1.1.4 Copular sentences without an overt be-copula

There are no be-copular sentences without an overt copula in Koromfe, so §1.2.1.1.4–5 are inapplicable.

### 1.2.1.1.6 Different types of copula

The only distinction between the types of copula described above is that *wɛ̃* and its negative counterpart *ŋgo* must be used with a local adverbial complement. Otherwise, *la* and its negative counterpart *dɔ* are used for all copula functions, including defining, identity and role (i.e. §1.2.1.1.6.1–3).

In addition, there is a verb *kɪrɛtam* 'become', exemplified in (183)–(184), and a vast variety of adjectival verbs with the meaning 'be X' and derived verbs meaning 'be/become X', which are dealt with in the relevant parts of §2.1.3 below.

(183) | a | dããnɛ | koŋ | kɪrɛtə | mə | zããndɪ
--- | --- | --- | --- | --- | --- | ---
 | ART. | wood + SG. | DET. NON-HUM. SG. | become | PRON. 1SG. | club + SG.

'This stick has become my club.'

(184) | də | kɪrɛtɪ | jɪbrɛ | dom | sa
--- | --- | --- | --- | --- | ---
 | PRON. 3SG. HUM | become | eye + SG. | one | owner + SG.

'He became one-eyed.'

## 1.2.1.2 Verbal sentences

### 1.2.1.2.1 Verbs without subjects or with dummy subjects

Normally, every verb must have an overt subject. But in the short utterances of the type NP-*la* (185), PP-*dɔ* (186) or ADVERBIAL-*la* (the last 2 words of (187)) the emphatic particle *la* might be considered to be the copula. In this case, we would have to say that these sentences have no subject NP (at least for the second case). However, despite their full-sentence glosses, I do not consider these phrases to be full sentences of Koromfe, but either elliptical sentences or non-sentential exclamatory utterances akin to short answers to question-word questions.[25]

(185)  mǝkɔ        la
      PRON. 1SG.  EMPH.

      'It's me (who did it).'

(186)  a    dɪʊ                  nɛ               dɔ
      ART.  eat (ACTION NOUN)  for (POSTPOS.)  NEG. EMPH.

      'It's not for eating.'

(187)  dǝ                   ŋgo   (a)          dãŋ           joro
      PRON. 3SG. HUM.  not be  ART. (*elided*)  house + SG.  inside (POSTPOS.)

      selle    la
      outdoors  EMPH.

      'He isn't in the house, he's outdoors.'

One special type of subject is the word *kɔ̃N* when it is used to introduce a headless relative clause (cf. §1.1.2.3.6 above) or a 'subjectless' adverbial clause of time (cf. §2.1.1.6.4 below).

If the expressions *tɪgɛ X* 'as far as X is concerned' and *gaa tɪgɛ X* 'if it weren't for X' are full clauses (rather than petrified preposition-like phrases), then the former has no subject. Structurally, *tɪgɛ* is the PAST form of *tɪgam* 'put, be, do', and originates in the conditional adverb clause construction. Therefore *tɪgɛ X* literally means 'if (it) is X' or 'if (it) is X (we're talking about, then...)'. A dummy subject *gʊ* 'it' is not possible here. However, as far as I know there are no regular syntactic constructions of this type, apart from this one fixed expression. The second expression, *gaa tɪgɛ X* has a negative pronoun subject *gaa* 'it...not', as described below.

Apart from cases mentioned above, every verb must have an overt subject, which can be a dummy. The usual dummy subject is the 3rd person singular non-human pronoun *gʊ* (or its negative counterpart *gaa*). This is used in phrases like *gʊ jãŋ* 'it seems' or *gʊ dɛɪ* 'it is possible', which can be independent sentences, or be complemented with a noun clause (with or without the introductory conjunction *ke*). Examples are given in (188)–(190).

(188)  gʊ                         dɛɪ  də                   bɛ     sã
       PRON. 3SG. NON-HUM  can   PRON. 3SG. HUM  come   tomorrow

       'It is possible that he will come back tomorrow.'

(189)  gaa                         jãŋ    ke              sã          də
       NEG. PRON. 3SG. NON-HUM  appear  that (CONJ.)  tomorrow  PRON. 3SG. HUM

       bɛllaa
       come + PROG.

       'It seems that he will come back tomorrow.'

(190)  gʊ                         jãŋ    də                   jã            nɛ
       PRON. 3SG. NON-HUM  appear  PRON. 3SG. HUM  mother + SG.  for (POSTPOS.)

       ke              sã          də                   bɛllaa
       that (CONJ.)  tomorrow  PRON. 3SG. HUM  come + PROG.

       'It seems to his mother that he will come back tomorrow.'

I know of no Koromfe verb which requires a dummy subject to the exclusion of other subjects.

### 1.2.1.2.2 Verbs without direct objects

There are large classes of verbs which obligatorily have no direct object, and most (other) verbs can optionally be used without a direct object. Typical verbs which do not allow a direct object obligatorily are *wiletʌm* 'to turn round', *tamam* 'to be lost'.

The verbal adjectives also never have a direct object.

### 1.2.1.2.3 The category 'indirect object'

The indirect object in Koromfe is not definable in morphological terms, but is usually distinguishable from the direct object. Syntactically, if both object NPs are non-pronominal, the indirect object comes first, as can be seen in (191).

(191)  də              pa  a   kɛ̃ɔ̃       hoŋ        a    ɟãna
  PRON. 3SG. HUM.  give  ART.  woman + SG.  DET. HUM. SG.  ART.  millet + PL.

  'He gives some millet to the woman.'

But if the either of the objects is a pronoun, it comes first, as shown by (192)–(193), which are paraphrases of (191) but with a pronoun substitutes for 'millet' and 'woman' respectively.

(192)  də              pa  hɛ̃                      a    kɛ̃ɔ̃
  PRON. 3SG. HUM.  give  PRON. 3PL. NON-HUM.     ART.  woman + SG.

  hoŋ
  DET. HUM. SG.

  'He gives it (= millet) to the woman.'

(193)  də              pa  dɪ                a    ɟãna
  PRON. 3SG. HUM.  give  PRON. 3SG. HUM.     ART.  millet + PL.

  'He gives her some millet.'

If both objects are pronouns, then the indirect object comes first, as is shown by the second paraphrase (194), in which both 'woman' and 'millet' are replaced by pronouns.

(194)  də              pa  də                hɛ̃
  PRON. 3SG. HUM.  give  PRON. 3SG. HUM.   PRON. 3PL. NON-HUM.

  'He gives her it.'

As an additional complication, the indirect object of 'give' can optionally be expressed with the postposition *nɛ*, here meaning 'for', which is normally used for the benefactive argument of a verb. Here, the order of the constituents 'woman' and 'millet' is free: both (195) and (196) are equally good sentences.

(195)  də              pa  a   ɟãna       a    kɛ̃ɔ̃       hoŋ
  PRON. 3SG. HUM.  give  ART.  millet + PL.  ART.  woman + SG.  DET. HUM. SG.

  nɛ
  for (POSTPOS.)

  'He gives the millet to the woman.'

(196)  də                pa    a      kɛ̃ɔ̃         hoŋ            nɛ
       PRON. 3SG. HUM.   give  ART.   woman + SG.  DET. HUM. SG.  for (POSTPOS.)

       a      ɲ̃ana
       ART.   millet + PL.

       'He gives the millet to the woman.'

However, the indirect object with *nɛ* is not always available for pronoun objects. A sentence such as (197) cannot mean 'He gives it to him/her', but can only mean 'He gives it (to someone else) for him/her.' Also, this is the only possible order of verb arguments, since a true benefactive always follows both the direct and indirect object.

(197)  də                pa    hɛ̃                  dəkɔ
       PRON. 3SG. HUM.   give  PRON. 3PL. NON-HUM.  DISJ. PRON. 3SG. HUM.

       nɛ
       for (POSTPOS.)

       'He gave them (to someone) for him/her.'

Finally, it is possible to have a true benefactive argument in addition to a direct and indirect object, and still have an indirect object using post-position *nɛ*, as shown in (198),[26] although sentence (199) is more usual.

(198)  də                pa    a      ɲ̃ana          a      kɛ̃ɔ̃
       PRON. 3SG. HUM.   give  ART.   millet + PL.  ART.   woman + SG.

       nɛ               də                kaka               nɛ
       for (POSTPOS.)   PRON. 3SG. HUM.   grandfather + SG.  for (POSTPOS.)

       'He gave some millet to the woman for his/her[27] grandfather.'

(199)  də                pa    (a)           kɛ̃ɔ̃         hoŋ            a
       PRON. 3SG. HUM.   give  ART. (*elided*)  woman + SG.  DET. HUM. SG.  ART.

       ɲ̃ana          də                kaka               nɛ
       millet + PL.  PRON. 3SG. HUM.   grandfather + SG.  for (POSTPOS.)

       'He gave some millet to the woman for his/her grandfather.'

*1.2.1.2.4 Other kinds of arguments of verbs*

Apart from temporal and local adverbials, Koromfe has benefactive (optionally), comitative (optionally) and instrumental (optionally) arguments. The benefactive is expressed by the postposition *nɛ* (exemplified in the previous subsection), and the comitative and instrumental are both expressed with the preposition *la*. It is difficult to construct a sentence in which comitative and instrumental co-occur.

*1.2.1.2.5 Combinations of subject, direct object, indirect object, and other arguments*

Koromfe sentences require a subject, but are quite free in allowing (or allowing the omission of) all other verb arguments. In example (197) above we saw that a verb such as 'give' does not require a direct object even when an indirect object and benefactive are present (unlike English). I would go as far as to say that any semantically and pragmatically feasible combination of verb arguments is permissible in Koromfe (pace the obligatory status of the subject). In example (4) at the beginning of this chapter, the final word *pa* 'give' has no overt object of any kind.

Since the order of the constituents for the combination of verb, subject, and direct object is given in the relevant sections above, §1.2.1.2.6 is omitted.

*1.2.1.3 Adverbials*

*1.2.1.3.1 Occurring and non-occurring types of adverbial*

*1.2.1.3.1.1 Adverbs*

Adverbs occur, but they are only a small lexical class, since there is no class of adjectives from which they might be derived (as in English). Instead, there are nominal or verbal adjectives, neither of which permits the formation of or use as an adverb. Also, there is no clear boundary between adverbs and exclamations (including phonologically irregular elements). Many adverbs, particularly of manner, are typically repeated (sometimes more than once), such as *bɔɪ bɔɪ* 'slowly', *sɛ̃nɛ sɛ̃nɛ* 'at the bottom', *tau tau* 'fast', *wele wele* 'fast'. (Cf. §2.2.4.4 below on reduplication.)

*1.2.1.3.1.2 Prepositional or postpositional phrases*

Both occur. Prepositions are the more restricted class, being limited to *la* 'with' (COMITATIVE and INSTRUMENTAL) and *hal* 'up to, as far as'.

*1.2.1.3.1.3 Cases of noun phrases*

Koromfe has no cases. However, the universally quantified adverbs *tike dʊrʊ* 'everywhere' and *sɔ̃ɔ̃nɛ dʊrʊ* 'always, every time' are plain noun phrases (comprising the nouns *tike* 'place + SG.' and *sɔ̃ɔ̃nɛ* 'time + SG.' plus the quantifier *dʊrʊ* 'all') with no pre- or postposition. Other temporal adverbials derived from noun phrases, which normally take the preposition

*la*, may optionally omit this preposition; local adverbials, on the other hand, always keep their postposition.

### 1.2.1.3.1.4 Adverbial clauses

Finite adverbial clauses occur, and are described in §1.1.2.4.2 above. Non-finite adverbial clauses also occur, and are restricted to PPs containing gerunds or deverbal action nouns. They are described in §1.1.2.4.3 above.

### 1.2.1.3.2 The positional possibilities for adverbials within the sentence

### 1.2.1.3.2.1 Adverbs

Adverbs fall into three distinct classes on distributional grounds, and each class has related semantic characteristics. (Note that clause-final in the following sub-sections excludes the sentence-final yes-no question particles, which are always the very last thing in a sentence.)

### 1.2.1.3.2.1.1 Pre-verbal verbal adverbs

This class of adverbs includes the adverbs *da* 'in the past', *handa* 'truly',[28] and occurs before the (first) finite verb of a clause (with the exception of *handa* when used as an exclamation outside normal sentence structure — cf. the pre-sentential echo-question usage of *handa* in §1.1.1.2.3.3 above). This is also the position where the negative particle *ba* occurs when it qualifies the verb. In the rare event that more than one of these co-occur, they have the order *handa — da — ba*.

Sentence (201) below contains an example of *da*. The adverb *handa* is exemplified in (200).

(200)   də                handa  wẽ  də            wẽ
        PRON. 3SG. HUM.  really  be  PRON. 3SG. HUM.  be
        'He really existed, he existed!'

### 1.2.1.3.2.1.2 Other verbal adverbs

The majority of adverbs usually occur at the end of the clause to which they belong, as shown in (201)–(204), but can also occur in clause-initial position, as shown in (205). The exclamatory, probably onomatopoeic adverbial ideophone *tatãntãntãn* is supposed to represent the movements of two heavy animals fighting (cf. §4.1 below).

(201)  də          da    dig(i)  a     ɟãna        kallɛ      kallɛ
       PRON. 3SG. HUM.  past  sow   ART.  millet + PL.  repeatedly  repeatedly

'He sowed the millet repeatedly.'

(202)  a     senəbʌ          bɛŋ            wɔl   hal    kesem  ba
       ART.  young man + PL.  DET. HUM. PL.  work  until  much   PRON. 3PL. HUM.

kɛndɪ  tao   tao
finish  fast  fast

'The young people worked so much that they were finished fast.'

(203)  nɛŋgɛ  ɪ                 wɔfə         dombʌ           tatãntãntãn
       thus   PRON. 3PL. NON-HUM.  have + DUR.  comrades + PL.  IDEOPH. (ADV.)

'Thus they (fought) one another: *[tatãntãntãn].*'

(204)  mə         na   kemde          dɛ̃ɛ̃
       PRON. 1SG.  see  *(proper name)*  yesterday

'I saw Kemde yesterday.'

(205)  dɛ̃ɛ̃        mə         na   kemde
       yesterday  PRON. 1SG.  see  *(proper name)*

'Yesterday I saw Kemde.'

## *1.2.1.3.2.1.3* (a) nɛ̃ɛ̃

The 'adverb' (if such it is) *nɛ̃ɛ̃* 'past' always occurs immediately after the verb which it qualifies. This word seems to be derived from a noun *a nɛ̃ɛ̃* — but as a bare noun it has no place in constituent structure.

(206)  də          digrə        nɛ̃ɛ̃   a     ɟãna
       PRON. 3SG. HUM.  sow + DUR.  past  ART.  millet + PL.

'He sowed the millet.'

## *1.2.1.3.2.2 Prepositional or postpositional phrases*

The position of adverbial pre- and postpositional phrases is the same as that of true adverbs: normally at the end of their clause, but optionally at the beginning. Examples are given in (207)–(209).

(207)  a      kɛkʊ       nɛ              də                wɔllaa        a
       ART.   field + SG.  in (POSTPOS.)  PRON. 3SG. HUM.  work + PROG.  ART.

       wete    dʊrʊ
       day + SG.   every

       'He works in the field every day.' *(Lit.:* 'In the field he words every day.'*)*

(208)  a      wete      dʊrʊ   də                wɔllaa        (a)
       ART.   day + SG.   every  PRON. 3SG. HUM.  work + PROG.  ART. (*elided*)

       kɛkʊ       nɛ
       field + SG.   in (POSTPOS.)

       'Every day he works in the field.'

(209)  də                wɔllaa        (a)           kɛkʊ       nɛ
       PRON. 3SG. HUM.  work + PROG.  ART. (*elided*)  field + SG.   in (POSTPOS.)

       a      wete      dʊrʊ
       ART.   day + SG.   every

       'He works in the field every day.'

## *1.2.1.3.2.3 Adverbial clauses 1. finite, 2. non-finite*

The internal structure of adverbial clauses is described in detail in §1.1.2.4.2 above. The examples given there show that their position within the matrix sentence, no matter what type of adverbial clause is involved, is either final or initial, as with all other adverbs.

Although multiple adverbials are quite common, I have been unable to find or elicit a convincing example of two adverbial clauses of different types occurring in the same sentence, except when one type is a plain sequence of clauses (with no extra structure marking it as a subordinate clause).[29] This is hardly surprising in view of the general tendency in Koromfe to concatenate main clauses in sequences rather than use subordinate clauses.

## *1.2.1.3.3 Constructions with obligatory adverbials*

There are no constructions in which adverbials are obligatory, although some set phrases very frequently occur with an adverbial, e.g. 'return home', given in (210).

(210)  ʊ          wunnʌʌ              dã̄ãnɛ
       PRON. 1PL.  return home + PROG.  home (ADV.)

       'We will return home.'

## 1.2.2 Adjective phrase

In this section I disregard verbal adjectives and give details for nominal adjectives.

### *1.2.2.1 Operational definition for the adjective phrase*

There is no operational definition for the adjective phrase, but there is a *conditio sine qua non*, namely that an adjective phrase must follow the noun which it qualifies.

There are no adjectives that take arguments, occur in subjectless sentences, or with objects (direct, indirect or otherwise), therefore §1.2.2.2 is omitted.

### *1.2.2.3 Adverbials which can modify adjectives*

Verbal adjectives can be modified by the same adverbials as any verb. Nominal adjectives can be modified by the same modifiers as other nouns — including further nominal adjectives. Therefore §1.2.2.3.1–5 are inapplicable; §1.2.2.4 is inapplicable because adjectives do not take arguments.

## 1.2.3 Adverbial phrase

### *1.2.3.1 Operational definition for the adverbial phrase*

There is no general operational definition for the adverbial phrase as such.

### *1.2.3.2 Adverbials which can modify adverbials*

### *1.2.3.2.1 Adverbs*

Adverbs of degree can modify adverbials, as in (211).

(211)  bʌdini          bɛllaa         taʊ  taʊ  kesem
       (*proper name*)  come + PROG.  fast fast much

       'Badini comes very fast.'

*1.2.3.2.2 Prepositional or postpositional phrases*

The prepositional phrase *hal kesem* can modify other adverbials. Sentence (212) is a paraphrase of (211).

(212) bʌdini          bɛllaa           taʊ taʊ hal            kesem
     (*proper name*) come + PROG.  fast fast up to (PREP.) much

     'Badini comes very fast.'

*1.2.3.2.3 Cases of noun phrases*

There are no cases.

*1.2.3.2.4 Adverbial clauses 1. full, 2. reduced*

The adverbs of manner exemplified above in §1.1.2.4.2.2 above and repeated here as (213)–(214), can be regarded as full and reduced (respectively) adverbial clauses modifying the adverb *taʊ taʊ*.

(213) bʌdini          bɛllaa           taʊ taʊ mbʌʌ kemde          kɔm
     (*proper name*) come + PROG.  fast fast like  (*proper name*) when (CONJ.)

     bɛ     lɛ    kānā
     come  thus like

     'Badini comes fast, just as Kemde comes.'

(214) bʌdini          bɛllaa           taʊ taʊ mbʌʌ kemde
     (*proper name*) come + PROG.  fast fast like  (*proper name*)

     'Badini comes as fast as Kemde.'

*1.2.3.3 The relative order of the modifying and modified adverbials*

The modifying adverbial always follows the modified adverbial.

*1.2.3.4 Restrictions on the modification of adverbials by adverbials*

It seems that only adverbials of degree and manner (including equative usage) can modify other adverbials.

There exists one puzzling case. The deictic adverb *nɛŋ* 'thus' can be modified by a NON-HUMAN SINGULAR DETERMINER, either *koŋ* (short form) or *koŋgo* (long form), or by the NON-HUMAN SINGULAR DEICTIC *naŋgʊ*. This is the only case I know of an adverb taking a DETERMINER or any other kind of nominal modifier. An example is given in (215).

(215)  məkɔ            bara          hoŋ           kɔ̃          sɪbɛ
       DISJ. PRON. 1SG.  husband + SG.  DET. HUM. SG.  when (CONJ.)  die + PAST

       neŋ  koŋ                      məkɔ              ba    zɔmmaa       kãŋ
       thus  DET. NON-HUM. SG.        DISJ. PRON. 1SG.  NEG.  want + PROG.  thing + SG.

       kãã   gɔɔnɛ
       every  still (ADV.)

       'Now that my husband has died like this I don't want anything any more.'

### 1.2.4 Prepositional / postpositional phrase

Koromfe has both prepositional and postpositional phrases.

*1.2.4.1 Operational definition for the pre-/postpositional phrase*

There is no general operational definition for the prepositional or post-positional phrase beyond the existence of a preposition or postposition in initial or final position respectively. The class of prepositions seems to be quite well defined (i.e. *la* 'with' and *hal* 'up to'), but postpositions are more difficult to pin down because often normal common nouns are used postpositionally. (Cf. §2.1.5.1 below.)

*1.2.4.2 Pre-/postpositional phrases and their arguments*

*1.2.4.2.1 Pre-/postpositions without arguments (objects) as 'adverbs'*

Rarely, complex postpositions (cf. §2.1.5.1 below), which consist of a common noun followed by the simple postposition *nɛ*, are used as adverbs, as shown in (216), elicited with the implied reading 'at the back of the house'. However, it is also usual for them to have a pronoun as their head noun, as in (217). Note also that *bɛllɛ nɛ* is a perfectly good postpositional phrase (and therefore a good adverbial) in its own right; I therefore think that the occurrence of (what look like) complex postpositions without arguments in phrases of this type is only accidental. No simple postposition ever occurs without an argument NP.

(216)  də                hɪtɪ    bɛllɛ       nɛ
       PRON. 3SG. HUM.   stand   back (SG.)  at (POSTPOS.)

       'He stayed at the back.' (*Implied:* of something)

(217)  də                       hɪtɪ  gʊ                         bɛllɛ        nɛ
       PRON. 3SG. HUM.  stand  PRON. 3SG. NON-HUM.  back (SG.)  at (POSTPOS.)

       'He stayed at the back (of it).'

### 1.2.4.2.2 Pre-/postpositions with more than one argument

Almost by definition, the postposition *tʊllɛ* 'between, among' (which is
the noun 'middle'), can have more than one argument when used in the
sense of 'between'. The arguments are conjoined with *la,* as shown in
(218).

(218)  də                       tufʌʌ        a      dãŋ          koŋ                    la
       PRON. 3SG. HUM.  sit + PROG.  ART.  house + SG.  DET. NON-HUM. SG.  and

       (a)              fɛkʊ         koŋ                    tʊllɛ
       ART. (*elided*)  tree + SG.  DET. NON-HUM. SG.  middle + SG. (POSTPOS.)

       'He is sitting between the house and the tree.'

This postposition also occurs with a single argument both in the plural and
(perhaps unexpectedly) in the singular, as shown in (219)–(220).

(219)  də                       mɛŋ  fɛbɪ       hĩĩ   hɛ̃ŋ
       PRON. 3SG. HUM.  stay  tree + PL.  two  DET. NON-HUM. PL.

       tʊllɛ
       middle + SG. (POSTPOS.)

       'He stayed between the two trees.'

(220)  de                       jaʊ  kunne        tʊllɛ
       PRON. 3SG. HUM.  go    town + SG.  middle + SG. (POSTPOS.)

       'He went to the centre of town.'

### 1.2.4.2.3 Pre-/postpositions with arguments other than noun phrases

Apart from the question of the status of the common nouns used in com-
plex or 'secondary' postpositions, there are no cases of pre-/postpositions
which take any arguments other than noun phrases.

Some of the postpositions (derived from full nouns) can optionally be
compounded with the (non-nominal) simple postposition *nɛ,* e.g. *dɔba* 'top
(NOUN) / on top of (POSTPOS.)' and *dɔba nɛ* 'on top of (COMPOUND
POSTPOS.)'. In this case, arguably, the argument of the second postposition
is the first postposition (and not a noun phrase). However, I would say that
it is the noun *dɔba* (and not the postposition) which combines with *nɛ.* The

two types of postposition are exemplified in (221)–(222); for further details of the occurring types of simple and complex postpositions, see §2.1.5.1 below.

(221)   a        lembəgʌ   koŋ                         wãnaa      a        dãŋ
        ART.     bird + SG.  DET. NON-HUM. SG.   be + PROG.  ART.   house + SG.

        koŋ                        dɔba
        DET. NON-HUM. SG.   top

        'The bird is on (the) top of the house.'

(222)   a        lembəgʌ   koŋ                         wãnaa      a        dãŋ
        ART.     bird + SG.  DET. NON-HUM. SG.   be + PROG.  ART.   house + SG.

        koŋ                        dɔba   nɛ
        DET. NON-HUM. SG.   top    at (POSTPOS.)

        'The bird is on (the) top of the house.'

### *1.2.4.2.4 Stranding of pre-/postpositions if their noun phrase is moved*

Pre-/postposition stranding does not occur.

### *1.2.4.3 Elements that can modify pre-/postpositions*

Apart from the marginal case of the compound postpositions described in §1.2.4.2.3 above and §2.1.5.1 below, nothing can modify a preposition or postposition, and therefore §1.2.4.3.1–5 are inapplicable. Koromfe has no cases, therefore §1.2.4.4 is inapplicable.

### **1.2.5 Noun phrase (nominal constituent)**

### *1.2.5.1 Operational definition for the noun phrase*

Anything beginning with the article *a* is a noun phrase; there exists no other morpheme in Koromfe with the shape *a*. The article *a* can only stand at the beginning of an NP, no matter how complex that NP is (unless, of course, it includes independent NPs within a subordinate clause).

Anything followed by a demonstrative adjective (cf. §1.2.5.2.5 below) is an NP; that NP can be at any level within a complex NP (cf. §2.3.1.1 on compound NPs).

### *1.2.5.2 Occurring types of modifier*

Syntactic modifiers proper, apart from the article *a* or the possessive adjective, if present, always follow the noun which they modify; in morpho-

logical compounding of nouns and NPs, on the other hand, the first member is the modifier of the second in genitival complex NPs and nouns (cf. §2.3.1.1.1 and §2.3.1.1.3 below). Only the article *a* or a possessive adjective precede the noun. These two categories are in complementary distribution, and can only be present once in a simple NP.

### 1.2.5.2.1 Adjective

Nominal adjectives are morphologically very similar to nouns, and indeed can be used as independent nouns, e.g. the adjective *sɔmdɛ* 'red', which is used as a noun meaning 'white person'.

### 1.2.5.2.2 Relative clause

Relative clauses are described in §1.1.2.3 above.

### 1.2.5.2.3 Possessive 'adjective'

The (positive) personal pronouns, including the disjunctive ones, can all be used as possessive[30] adjective prefixes on a noun or NP. Here, they have exactly the same morphological shape as the subject prefixes of verbs. The possessive adjectives never occur anywhere except the initial position of an NP. Only one possessive adjective can be present, and in that case the NP cannot also have the article *a*. The article and the possessive adjective are the only prenominal modifiers of an NP.

### 1.2.5.2.4 Article

The article *a* occurs obligatorily before all common nouns which do not have some other prenominal modifier (e.g. a possessive adjective or a preceding noun or NP with which the it is compounded) or a postnominal deictic, numeral or other modifier which precludes the use of the article. Proper names and place names, on the other hand, never have the article *a*.

This situation is quite mystifying in comparison with the related language Mòoré (which many Koromfe speakers also speak), where almost exactly the opposite holds: proper names (of persons) require a prefix [a][31] (except in vocative usage), while common nouns have none. Only place names behave as in Koromfe, and have no article.

The Koromfe article *a* never inflects or changes in any way; phonologically it is optionally elided at a normal rate of speech after a non-high

vowel. When no determiner is present, the article is indefinite, e.g. *a bɔrɔ* 'a man', *a kɛ̃ɔ̃* 'a woman', *a hem* 'some water'.

Verbs, when named alone, take the form of the deverbal action noun, which also requires an article. This means that a word list comprising the open word classes noun, verb and adjective almost invariably produces a list of Koromfe words which apparently all begin with *a*. However, this article is an independent word and has no phonological effects whatsoever on the following segments, even though intervocalic weakening processes abound within words.

### 1.2.5.2.5 Demonstrative 'adjective'

There are two types of demonstrative adjectives in Koromfe, which I have labelled DETERMINER and DEICTIC in the glosses. The DETERMINER requires the ARTICLE *a* or some other article-like nominal prefix which replaces the article, such as a possessive adjective (for examples, see the next sub-section).

### 1.2.5.2.5.1 Determiner

The determiner inflects for number (singular or plural), humanness (human or non-human), or for diminutive (in which case the number must be singular, and no humanness distinction is possible). For details of the inflectional forms, see §2.1.1.10.1.

Four[32] of the five inflectional forms of the determiner also have a 'long' form, consisting of an additional (i.e. second) syllable /gV/, where V is a copy of the vowel of the first syllable. The short form of the determiner is very similar to the definite article in English, while the long form is more akin to the English demonstratives *this* and *that*, though with less deictic force than the deictics (see the next sub-section). Examples of long forms are *a bɔrɔ hoŋgo* 'this/that man', *a kɛ̃ɔ̃ hoŋgo* 'this/that woman', *a hem koŋgo* 'this/that water'.

The determiner occurs at the end of a noun phrase, e.g. (in simple noun phrases) *a bɔrɔ hoŋ* 'the man', *a kɛ̃ɔ̃ hoŋ* 'the woman', *a hem koŋ* 'the water'. When the noun phrase is complex, a sequence of two determiners is avoided, as in (223) (where the determiner *koŋ* is expected after *sundu*) or even when the determiners would be separated by a postposition, as in (224) (where *koŋ* is expected after *kɛku*). Alternatively, the determiner of

the head noun is positioned before a relative clause, as *bɛŋgɛ* in (225), which allows the determiner *hoŋgo* (which goes with *j̃ã*) to be realized.

(223) bɔrɔ      dom   kɔ̃n       məkɔ         panɛ       mə
        man + SG.   one   NON-SPEC. REL.   DISJ. PRON. 1SG.   give + PAST   PRON. 1SG.

        sundu       hoŋgo
        horse + SG.   LONG DET. HUM. SG.

        'the man to whom I gave my horse'

(224) a     bɔrɔ       ala                 wɛ̃   a      kɛku      joro
        ART.   man + SG.   who (REL. HUM. SG.)   be   ART.   field + SG.   in (POSTPOS.)

        hoŋ
        DET. HUM. SG.

        'the man in the field'

(225) a     beliʌ       bɛŋgɛ             bɛnəma            hãŋsɛ
        ART.   child + PL.   LONG DET. HUM. PL.   who (REL. HUM. PL.)   help + PAST

        ba               j̃ã             hoŋgo
        PRON. 3PL. HUM.   mother + SG.   LONG DET. HUM. SG.

        'the children who helped their mother'

The DETERMINER is also used in vocatives, e.g. *a kɛ̃ɔ hoŋ* 'Woman!' (a polite form of address). It can also be used alone in copular sentences such as (226).

(226) a     sammã     wɔ̃nɔ̃ŋ           la       koŋ
        ART.   father + PL.   chicken + SG.   COPULA   DET. NON-HUM. SG.

        'This (one) is the ancestors' chicken.'

For completeness' sake, let me note that some adverbs also optionally take the definite non-human singular determiner, e.g. *sa / sa koŋ* 'now', *nɛŋ / nɛŋ koŋ* 'thus, that way, like that' *dɛ̃ɛ̃ / dɛ̃ɛ̃ koŋ* 'yesterday'. It is even possible to omit the adverb completely, in which case *nɛŋ* 'thus' is understood, as shown in (227), where the final *koŋ* can only be taken to be an adverb, since it has no referent within the clause or the wider context.

(227) də               bara           hoŋ          sɪbɛ
        PRON. 3SG. HUM.   husband + SG.   DET. HUM. SG.   die + PAST

        koŋ                      ...
        DEMONST./DET. NON-HUM. SG.   ...

        'Since her husband had died like that...'

## 1.2.5.2.5.2 Deictic

The modifier *nandɪ* (HUMAN SINGULAR), which inflects for number and humanness, but not DIMINUTIVE, follows the noun phrase which it qualifies and is referentially deictic (within the discourse), e.g. *a bɔrɔ nandɪ* 'that man (that we've just been talking about)', *a kɛ̃na namba* 'those women'. It requires an NP-initial article.

The deictic modifier *naŋsa* is strongly deictic, and often accompanied by some physical pointing or explanatory gesture. This modifier follows the (rest of the) noun phrase to which it applies, and does not occur in conjunction with relative clauses (or other intervening modifiers). It does not normally allow an NP-initial article,[33] and has a fixed (i.e. non-inflected) phonological form, e.g. *bɔrɔ naŋsa* 'that man over there', *dãŋ naŋsa* 'that house over there'. The lack of inflection seems to indicate that the word *naŋsa* may be an adverb, and therefore comparable to *nɛŋgɛ* 'thus, like that', dealt with in §1.2.5.2.7 below.

## 1.2.5.2.6 Quantifiers

Quantifiers follow the noun which they quantify in a position intermediate between contentful adjectives (to the left of the quantifiers) and any DETERMINER or DEICTIC that may be present (to their right). Numerals precede other quantifiers. Some simpler examples, with universal quantification, are: e.g. *a bɔrɔ dʋrʋ* 'every man', *a bɛnna dʋrʋ* 'all men', *a kɛ̃ɔ̃ dʋrʋ* 'every woman', *a kɛ̃na dʋrʋ* 'all women'. The quantifier *dʋrʋ* can also be used with (clitic) pronouns, e.g. *ʋ dʋrʋ* 'all of us'.

The zero quantifier is syntactically quite complex and also, incidentally, involves the only case of double negation in Koromfe. For countable nouns, a noun phrase 'no X' usually has the structure *baa X dom*, where *baa* is the (prenominal long variant of the) NEGATIVE PARTICLE[34] and *dom* is the attributive CARDINAL NUMERAL 'one'. The verb is also negated (either by repeating the NEGATIVE PARTICLE *ba* preverbally, or by the use of a negative pronoun). Examples are given in (228)–(229).

(228)  baa    vaga        dom   ba      bɛnɛ
       NEG.   dog + SG.   one   NEG.    come + PAST

      'No dog came.'

(229)  də              ligi   də              pɛrgʊ    baa   tĩŋgfe
       PRON. 3SG. HUM.  cover  PRON. 3SG. HUM.  robe + SG.  NEG.  fly + SINGULAT.

       hũnde  ba    hata            dɪ
       even   NEG.  touch + PROG.   PRON. 3SG. HUM.

       'She covered him with his robe so that no fly should touch him.'

Existentially quantified noun phrases are the most complex. Sentence (230) shows what appears to be a complex noun phrase *a bɛnna bu bɛŋgɛ fʊba maŋəna* comprised of *a bɛnna bu bɛŋgɛ* 'those boys' and *fʊba maŋəna* 'some people' in a genitival construction ('some (people) of those boys').

(230)  a     bɛnna      bu          bɛŋgɛ                  fʊba
       ART.  man + PL.  child + PL.  LONG DET. HUM. PL.     person + PL.

       maŋəna           la      bɛ
       some (QUANT.)    EMPH.   come

       'Some of the boys came.'

However, sentence (231) shows the true situation: *a bɛnna bu bɛŋgɛ* 'those boys', i.e. the set out of which a subset is chosen by quantification, is the topic of the sentence, and *ba hĩĩ* 'two of them' (Lit. 'they two'), the quantified subset, occupies a normal NP position in the body of the sentence.

(231)  a     bɛnna      bu          bɛŋgɛ               mə          na
       ART.  man + PL.  child + PL.  LONG DET. HUM. PL.  PRON. 1SG.  see

       ba              hĩĩ
       PRON. 3PL. HUM.  two

       'I saw two of the boys.'

For further details and examples, see §2.1.1.4.19 below on partitive NPs.

### 1.2.5.2.7 Adverbials

A noun phrase can be modified by one of the short adverbs *mɔ̃* 'also', *kɔ* 'in any case', *lɛ* 'only' or *sɔɪ* 'only'. The latter two adverbs, both meaning 'only' can be repeated for emphasis, e.g. *a nɔ̃ŋa sɔɪ sɔɪ* 'only fat (and nothing else)'.[35] These adverbs can also be used to modify pronouns (usually disjunctive, but optionally clitic), e.g. *gʊ mɔ̃ kɪrɛt a bɔ̃nə ɟã̃ɔ̃* 'it also changes into a female goat', where *gʊ mɔ̃* consists of a clitic pronoun followed by the adverb *mɔ̃* 'also'.

In addition, rarely and probably only in conjunction with action nouns, a postpositional phrase can modify an NP, as shown in (232).

(232)  ba                    bɛllaa          la          (a)              pãõ
       PRON. 3PL. HUM.   come + PROG.   with (PREP.)   ART. (*elided*)   gift

       dombʌ            nɛ
       comrade + PL.    for (POSTPOS.)

       'They are bringing gifts for one another.'

The adverb *nɛŋgɛ* 'thus', though most frequently used to modify verbs, can also be used to modify a noun phrase, e.g. *a bɔrɔ nɛŋgɛ* 'a man like that'.

Other types of adverbial (i.e. PPs, adverb clauses) never modify noun phrases.[36]

### 1.2.5.2.8 Emphatic words

Apart from exclamations (which are often outside normal syntactic and phonological structure and can occur virtually anywhere), there are no emphatic words which can modify a noun phrase.

### 1.2.5.2.9 Comparative/superlative/equative structures

Comparative, superlative and equative structures are expressed with the help of verbs and therefore can only be used as modifiers when included in a relative clause.

### 1.2.5.2.10 Others

There are no other types of modifier that I know of. However, I claim in §2.3.1 below that the structure of the NP+N compound NP in fact involves the inclusion of an NP in the prenominal position normally occupied by the article or a possessive adjective. Clearly, this is more a question of analysis than of description.

### 1.2.5.3 Combinations of modifiers

Only adjectives can be combined sequentially, though this is relatively rare. The order is quite free, since modifiers can be added to the NP as 'afterthoughts'. The unmarked order of adjectives is probably that exemplified in (233).

(233)  dɔɔfɪ          ĵɔ̃ɔ̃nɛ          bĩnĩʌ         tãã     hɛ̃ŋgɛ
       animal + PL.   small + PL.    black + PL.   three   LONG DET. NON-HUM. PL.

       'those three small black animals'

Participial UNMARKED forms of verbs cannot be combined with other participial forms, and when combined with other adjectives come last in the sequence (i.e. even after a numeral), as exemplified in (234), where *tam* is the UNMARKED form of the intransitive verb *tamam* 'to be/get lost'.

(234) lugəni  jɔ̃ɔ̃nɛ  bɪ̃nɪ̃ʌ  tãã  tam hɛ̃ŋ
      cat + PL.  small + PL.  black + PL.  three  lose  DET. NON-HUM. PL.

      'those three small lost black cats'

This usage may be an abbreviated form of the 'afterthought' structure exemplified in (235)

(235) lugəni  bɪ̃nɪ̃ʌ  tãã  hɛ̃ŋgɛ  a  tam
      cat + PL.  black + PL.  three  LONG DET. NON-HUM. PL.  ART.  lose
      hɛ̃ŋ
      DET. NON-HUM. PL.

      'those three lost black cats' *(Or:* 'those three black cats, the lost ones'*)*

It is almost impossible to find or elicit a sequence of relative clauses, and sequences of possessive 'adjectives', articles or demonstrative 'adjectives' are quite impossible. Quantifiers cannot be combined in sequence, though they could perhaps be in a 'set-subset' structure exemplified in (231) above.

### 1.2.5.4 Combinations of modifiers which are not admitted

The (non-inflecting) deictics like *naŋsa* are so deictic that my informants did not want to add any further modifiers. They argued that an NP like *bɔrɔ naŋsa* 'that man (over there)' tells you who to look at, and you can decide for yourself what attributes he has.

### 1.2.5.5 The order of the head and its modifiers

Only the article *a* or a possessive adjective, if present, can (and must) precede the head noun of an NP. Otherwise, the head noun comes first, followed by all other modifiers in the order described below. This section refers to simplex NPs only, and not to the 'set-subset' or topicalized structures mentioned above.

The universal quantifier *dʊrʊ* 'all, every' must always be the last in the sequence of modifiers of its head noun, even including a relative clause. The relative order of modifiers which follow the head noun is therefore that given in (236) and exemplified by the monster NP given in (237),[37]

i.e.: 'descriptive' adjective(s) — numeral — participial adjective — demonstrative — quantifier. Such an NP never occurs in natural speech, but the relative order of its parts is nevertheless valid.

(236)  *The maximal structure of a simple NP with a common noun as head. (Nodes in parentheses are not always present.)*



(art./poss.adj.)   N   (descr.adj.)   (num.)   (partic.adj.)   (demonst.)   (quant.)
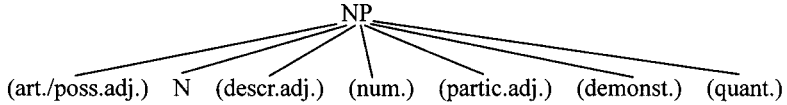
(237)  lugəni     ʄɔɔ̃nɛ        bĩnĩʌ̃       tã̃ã   tam   hɛ̃ŋ
       cat + PL.   small + PL.   black + PL.   three  lose  DET. NON-HUM. PL.

       kɔ̃n                  mə                 na    yoote       duro
       NON-SPEC. REL.        PRON. 1SG.         see   yesterday   all

       'all those three small lost black cats that I saw yesterday'

When the head is a pronoun, the maximum modification is a numeral and the quantifier *duro* 'all', as exemplified in (238).

(238)  ba                   hĩĩ   duro
       PRON. 3PL. HUM.      two   all

       'both of them' *(lit.:* 'all two of them'*)*

# 1.3 Coordination

Coordination in Koromfe is highly restricted. But-coordination is identical with and-coordination. Only clauses and NPs can be and-coordinated, and only clauses can be or-coordinated; modifiers of nouns are juxtaposed, following the noun which they modify. Other minor types of coordination occur as described below.

In place of overt clause coordination or constituent coordination, it is quite usual in Koromfe to find juxtaposed clauses which repeat all constituents of the first clause except for that element which is to be coordinated (provided that the clause is not too long), often with pronoun replacements for NP's. While such repetitious structures can also be found in most languages, in Koromfe they are the normal case. A particularly striking example is given in (239) (taken from a religious ceremony).

(239) ba            pa  bʌ̃ʌ̃nɪ  a   fɪrɛ  ba            pa  bʌ̃ʌ̃ni  a
      PRON. 3PL. HUM. give health ART. sun  PRON. 3PL. HUM. give health ART.

      jãntʋllɛ   ba            pa  bʌ̃ʌ̃ni  a   wugo
      midnight  PRON. 3PL. HUM. give health ART. dawn

      'They give health during the day, they give health at midnight, they give health
      at dawn.' *(Or:* 'They give health during the day, at midnight and at dawn.'*)*

These basic restrictions on coordination should be borne in mind throughout the following sub-sections.

*1.3.1.1 Sentence coordination*

*1.3.1.1.1 And-coordination*

Sentences can be coordinated either with the coordinator *la* (cf. (248) below) or simply by juxtaposition of clauses (cf. (240)). The structure of the coordinated sentences is $S_1 — la — S_2$ or $S_1 — S_2$.

(240) də              zoe          dãŋ        nɛ            mə
      PRON. 3SG. HUM. enter + PAST house + SG. in (POSTPOS.) PRON. 1SG.

      sa           tuko
      father + SG. sit

      'He entered the house and my father sat down.'

My informants almost always translated *la* as 'but' rather than 'and', and the juxtaposition of clauses is by far the more common means of coordination, especially if the subject of both sentences is coreferential.

A typical example of a sequence of juxtaposed clauses is given in (241). Intonationally, these clauses form a single sentence.

(241) kɔ̃n        də              tɛrɛ       də          wɔ̃f
      when (CONJ.) PRON. 3SG. HUM. arrive + PAST PRON. 3SG. HUM. have + DUR.

      a     jabrɛ                   də              wɔ̃f         a
      ART.  walk (ACTION NOUN) PRON. 3SG. HUM. have + DUR.  ART.

      jabrɛ                   də              wɔ̃f        a
      walk (ACTION NOUN) PRON. 3SG. HUM. have + DUR.  ART.

      jabrɛ                   də              tɛɲ     də          tuf
      walk (ACTION NOUN) PRON. 3SG. HUM. arrive  PRON. 3SG. HUM. sit + DUR.

      a     deŋgele       nɛnɛ    nɛ
      ART.  clearing + SG. mouth   at (POSTPOS.)

      'When he had arrived, he walked and walked and walked, arrived and sat down
      at the edge of a clearing.'

In (242), which is taken from the same text as (241), we see a sequence of clauses, some juxtaposed and some coordinated with *la*, and with a longish sequence of juxtaposed noun phrases.

(242) ʊ          fataa              ʊ          zaŋa     a      bʌ̃ʌ̃ni      ja
      PRON. 1PL. do first + PROG.  PRON. 1PL. ask for  ART.   health (SG.) EMPH.

      la  ʊ          lar   a     daam           ja      la   ʊ
      and PRON. 1PL. and   ART.  gain + GERUND  EMPH.   and  PRON. 1PL.

      tɛ̃ŋsɪ    ʊ          lar    a     jãndɛ         bɪrəgʊ        a     honde
      do next  PRON. 1PL. seek   ART.  millet + SG.  spirit + SG.  ART.  bean + SG.

      bɪrəgʊ        a     nabtəfɛ              bɪrəgʊ        a     sɔ̃ŋkaamdɛ
      spirit + SG.  ART.  sesame + SINGULAT.  spirit + SG.  ART.  peanut + SG.

      bɪrəgʊ        a     lambʊ          bɪrəgʊ
      spirit + SG.  ART.  cotton + PL.   spirit + SG.

      'We begin by asking for health and we ask for prosperity and then we seek the
      spirit of millet, the spirit of the bean, the spirit of sesame and the spirit of
      cotton.'

*1.3.1.1.2 But-coordination*

The coordinator *la* is also used for but-coordination. The structure is the same as for and-coordination with *la*, i.e. $S_1$ — *la* — $S_2$. An example is given in (249) below.

### 1.3.1.1.3 Or-coordination

In indicative sentences the coordinator is *maa*, and the structure $S_1$ — *maa* — $S_2$. There also exists an either-or structure, namely *maa* — $S_1$ — *maa* — $S_2$, exemplified in (246) below.

In alternative yes-no questions it is possible to juxtapose sentences; there is also a coordinator *jaa* that is specific to such yes-no questions. Both structures are exemplified in §1.1.1.2.1.3 above.

### 1.3.1.1.4 Other types

The particle *mɔ̃* 'also', which is positioned after the element to which it applies (and it is applicable to a wide variety of elements, including at least N, NP, Adverbial, Verb) has a kind of coordinative function. As with English *also* or *too*, the element modified by *mɔ̃* is and-coordinated to the corresponding element in some previously-stated/implied sentence. Thus in (243) the hippopotamus is added to the list of and-coordinated elements (here, the first NP of a 'genitive' structure) whose children were abducted by the rabbit. Up to this point, the list had consisted of the elephant only.

(243)    də                soŋ  a   jemdi          mɔ̃  bi
           PRON. 3SG. HUM.  take  ART.  hippopotamus + SG.  also  child + SG.
           'He took Hippo's child, too.'

This particle *mɔ̃* is just about the only thing that can intervene between an NP and its postposition in a postpositional phrase, as in (244).

(244)    gʊ                    bo  a   tife          mɔ̃  nɛ          lɛ
           PRON. 3SG. NON-HUM.  say  ART.  elephant + SG.  also  to (POSTPOS.)  thus
           'He said the same thing to the elephant, too.'

However, in (245) we see that *mɔ̃* can be used to coordinate NP's even when the verb and rest of the sentence differ. In the text, this sentence follows a passage, introduced by *kɛ̃ɔ̃ dʊfɛ hoŋ* 'the one wife', which narrates what one of the 'dead' man's three wives intends to do. The NP *kɛ̃ɔ̃ dʊfɛ hoŋ mɔ̃* continues the list of different things which the wives do (and therefore, despite its gloss, does not correspond to English *also* in this usage).

(245) kɛ̃ɔ̃          dʊfɛ hoŋ          mɔ̃ gondu də                    bo
      woman + SG.  one  DET. HUM. SG. also leave  PRON. 3SG. HUM.  say

ke...
that (CONJ.)...

'Another wife leaves and says that...'

### 1.3.1.2 The number of coordinators and coordinated elements

Coordinators are generally only used with a maximum of two coordinated elements. It is difficult to elicit a chain of more than two coordinated sentences — my informants always preferred a sequence of juxtaposed sentences. The details about coordinators given in the following sub-sections are therefore details of a highly marked construction type in Koromfe.

### 1.3.1.2.1 One coordinator for each element that is coordinated

This configuration only exists for the either-or coordination mentioned in §1.3.1.1.3 above. The structure is *maa* - A - *maa* - B etc., where A, B can be a sentence, a noun phrase or an adverbial. (I only have evidence of local and temporal adverbials.) Examples are given in (246)–(247).

(246) maa  bʌdini          bɛllaa          la   a    mũĩ maa kemde
      or   (*proper name*)  come + PROG.  with ART. rice or   (*proper name*)

bɛllaa          la   a    fãĩ
come + PROG.  with ART. millet porridge

'Badini will bring some rice or Kemde will bring some millet porridge.'

(247) də                wãna          maa (a)             dãŋ
      PRON. 3SG. HUM.  be + PROG.   or   ART. (*elided*)  house + SG.

koŋ                joro            maa tubre
DET. NON-HUM. SG.  in (POSTPOS.)   or   in(to) the bush (ADV.)

'He is either in the house or in the bush.'

### 1.3.1.2.2 One less coordinator than the number of such elements

The normal structure for and- and but-coordination is two elements joined by one coordinator. Coordination with more than two elements invariably reverts to juxtaposition with no coordinator. Examples with one coordinator, *la*, are given in (248)–(249).

(248)  mə        sa          la      jɛbtə  mə          dãŋ
       PRON. 1SG.  father + SG.  EMPH.  pay    PRON. 1SG.  house + SG.

       koŋ                    lebʌm              la   də          dollʌʌ
       DET. NON-HUM. SG.      build + GERUND     and  PRON. 3SG. HUM.  buy + PROG.

       a     kɛkʊ         mə          nɛ
       ART.  field + SG.  PRON. 1SG.  for (POSTPOS.)

       'My father paid for the building of a house and will buy me a field.'

(249)  a     fo            la      bɛ     la            mə          bãĩ
       ART.  person + SG.  EMPH.  come   but (CONJ.)   PRON. 1SG.  not know

       ala          la
       who (QU.)   EMPH.

       'Someone has arrived, but I don't know who.'

Or-coordination of clauses can also have the structure A - *maa* - B, so that example (246) can be realized without the first *maa*, as shown in (250).

(250)  bʌdini          bɛllaa            la   a    mũĩ maa  kemde
       (*proper name*)  come + PROG.      with ART.  rice or  (*proper name*)

       bɛllaa            la   a    fãĩ
       come + PROG.      with ART.  millet porridge

       'Either Badini will bring some rice or Kemde will bring some millet porridge.'

### *1.3.1.2.3 One coordinator irrespective of the number of such elements*

When restricted to two sentences, this configuration is logically equivalent to that described in §1.3.1.2.2. However, there are no instances in my corpus of 3 or more coordinated elements with just a single coordinator. It seems that once juxtaposition has started, nothing can stop it.

### *1.3.1.3 Coordination of the major categories of the sentence*

With the exception of the NP 'not X but Y' structure, the major categories of the sentence can only be and-coordinated (if that).

### *1.3.1.3.1 Noun phrases*

Noun phrases are and-coordinated with *la*. An example is given in (251).

(251)  ba               wɔ̃faa           bɔ̃nɛ         hĩĩ  la   wɔ̃nɛ        hĩĩ
       PRON. 3PL. HUM.  have + PROG.     goat + PL.   two  and  hen + PL.   two

       'They have 2 goats and 2 hens.'

But noun phrases can also be and-coordinated by juxtaposition, as was exemplified in (242) above.

Or-coordination of noun phrases was always rejected or paraphrased by my informants and is not present in my recorded texts.

Noun phrases also permit a 'not X but Y' structure using the emphatic particles *dɔ* (negative) and *la* (positive), as shown in (252). Such a structure must always be disjoint, with the 'but Y' part as a post-sentential afterthought.

(252)  a      kɔfɛ            dɔ           də                    na    a    jergʌ
       ART.   antelope + SG.   NEG. EMPH.   PRON. 3SG. HUM.   see   ART.  rabbit + SG.

       la
       EMPH.

       'It wasn't an antelope that he saw, but a rabbit.'


### 1.3.1.3.2 Verb phrases

Verb phrases cannot be conjoined; instead, two sentences are conjoined, where the second sentence has a pronominal subject corresponding to the subject of the first sentence. Examples are given in (253). Without the second pronoun *də* sentence (253) would be ungrammatical.

(253)  də                    horʌʌ          la    də                    feredi
       PRON. 3SG. HUM.   run + PROG.    and   PRON. 3SG. HUM.   whistle + DUR.

       'He is running and whistling.'


### 1.3.1.3.2 Others

Adverb and adjective phrases can at most be juxtaposed, but it is also usual to repeat the whole noun phrase or clause containing them.

### 1.3.1.4 Coordination and accompaniment (comitative)

The means used for expressing coordination and accompaniment (comitative) is the same for sentence and noun phrase coordination (i.e. the word *la* 'and/with'). This preposition is also used for instrumental. However, not all coordination requires or even allows *la* (see above).

## 1.3.1.5 Structural parallelism required between coordinated elements of the same category

No structural parallelism is required between sentences coordinated with *la*, since the coordinator covers the semantics of 'and' and 'but'. Sentences coordinated by juxtaposition have a strong tendency to prefer (non-disjunctive) pronoun subjects in all but the first coordinated sentence; the subjects need not necessarily be coreferential, as is shown by (254). This sentence tells how a man cuts the fruits of the baobab and throws them down for his wives to split them open; it is repeated verbatim 3 times consecutively in the original recording, but transcribed here only once to save space.

(254)  də                  wɔf             a       togre          koŋ
        PRON. 3SG. HUM.   have + DUR.   ART.   baobab + SG.   DET. NON-HUM. SG.

        hobʌm         də                  sʊrəgrʊ      ba                 wɔkrʊ
        cut + GERUND   PRON. 3SG. HUM.   drop + DUR.   PRON. 3PL. HUM.   break + DUR.

        'He (continually) cuts baobab (fruits), drops (them), and they break (them open).' *(Items in parentheses are not overtly present in the original but reconstructible for the Koromfe hearer.)*

### 1.3.1.5.1 Coordination of adjectives and participial constructions

Koromfe has no participial constructions, but does make considerable use of participles as adjectives. Morphologically, the participles are the bare verb stem or UNMARKED form, and can have an active or a passive reading. The modifiers of a noun, whether nominal adjectives or participles, are coordinated by simple juxtaposition, and can be freely combined, as shown in (255).

(255)  a      bɔrɔ          dɔɔrɛ          warəg(ɪ)   la       bɛ
        ART.   man + SG.   long + SG.   be tired   EMPH.   come

        'A tall and tired man arrived.'

It is also possible to coordinate nominal adjectives and participles with a repeated article *a*, as in (256). I have found no restriction on the relative order of the participle and the adjective in either type of coordination.

(256)  a      bɔrɔ          warəgɪ      a       dɔɔrɛ          la       bɛ
        ART.   man + SG.   be tired   ART.   long + SG.   EMPH.   come

        'A tired and tall man arrived.'

Or-coordination does not occur with constituents smaller than the clause, and but-coordination is never formally distinct from and-coordination.

### *1.3.1.5.2 Coordination of nouns and nominalized constructions*

The only nominalized construction in Koromfe is an NP+N complex NP consisting of an 'object NP' followed by the GERUND or action noun of a verb. I know of no restrictions on the coordination of such complex NPs with other NPs, although such structures do not occur in my recorded texts.

Nouns are never coordinated with other nouns or with anything else; only NPs can be coordinated (thus, for example, 'his mother and father' in Koromfe is always 'his mother and his father').

### *1.3.1.5.3 Coordination of the various different types of adverbial*

Only and-coordination by juxtaposition occurs. There are no restrictions on the type of adverbial involved beyond that of semantic plausibility.

### *1.3.1.5.4 Coordination of active and passive verbs*

Verbs cannot be coordinated; the smallest constituent containing a verb which can be coordinated is a clause. Formally there is no passive, but active forms can have a passive reading in the right semantic context. There are no restrictions on the coordination of clauses with an active or passive reading, whether their subject is the same or different.

Since verbs cannot be coordinated §1.3.1.5.5 is inapplicable.

### 1.3.2 Omission of elements of the sentence in coordination

### *1.3.2.1 Elements in the sentence that can be omitted under identity in coordination*

Normally, nothing can be omitted none. Only one marginal type exists, where a direct object seems to be omitted, as in (257). However, the verb *dɛɛm* 'to eat' does not require a direct object, and so the interpolated 'it' may simply be a matter of interpretation rather than active deletion/ omission of an object.

(257) bʌdini      horo   a    fãĩ         də             dɪ
      (*proper name*)   cook   ART.   millet porridge   PRON. 3SG. HUM.   eat
      'Badini cooked the millet porridge and ate it.'

*1.3.2.2 Elements in the sentence that cannot be omitted under identity in coordination*

With the possible exception noted in §1.3.2.1 above, all elements of the sentence must be kept.

### 1.3.3 Omission of elements of the major categories in coordination

*1.3.3.1 Noun phrase*

Sometimes an adjective qualifying the second of two conjoined nouns is taken to apply to the first, too, as in (258).

(258) də                kɔ̃ndʊ   a    hɔ̃ndɛ     la    a      gabrɛ   kɔ̃ɔ̃nɛ
      PRON. 3SG. HUM.   find    ART.   hoe + SG.   and   ART.   knife   worn out + SG.
      'He found a worn out hoe and knife.'

However, in (259) the first adjective *bĩnĩŋ* 'black' cannot be omitted, and the ill-formed noun phrase cannot be saved by pluralizing the second adjective 'black'.

(259) a     vaga     bĩnĩŋ       la     a     luko     bĩnĩŋ
      ART.   dog + SG.   black + SG.   and   ART.   cat + SG.   black + SG.
      'a black dog and a black cat'

     Nothing else can be omitted under identity in the coordination of noun phrases.

*1.3.3.2 Adjective phrase*

Adjective phrases can only be juxtaposed, and nothing can be omitted.

*1.3.3.3 Adverb phrase*

In a postpositional phrases consisting of conjoined noun phrases, it is usual to conjoin the NP's with *la* and to omit an identical postposition after the first NP, as exemplified in (260). However, I would analyse these structures as single PPs containing two conjoined NPs rather than as conjoined PPs.

(260)  bʌdin          horo  a     fãĩ            kemde          la
       (*proper name*)  cook  ART.  millet porridge  (*proper name*)  and

       sʊlɛ           nɛ
       (*proper name*)  for (POSTPOS.)

'Kemde cooked some millet porridge for Badini and Souley (=Souleymane).'

# 1.4 Negation

### 1.4.1 Sentence negation

A sentence can be negated either with the negative particle *ba*, which is positioned before the verb, or by the use of a negative subject pronoun from the list given in (261), all of which are proclitics on the verb.

(261)  *Subject (clitic) pronouns, positive and negative*

|  | positive | | negative | |
| --- | --- | --- | --- | --- |
| *person* ↓ | *singular* | *plural* | *singular* | *plural* |
| *1st* | mə | ʊ | maa | --- |
| *2nd* | n | na | --- | --- |
| *3rd hum.* | də | ba | daa | baa |
| *3rd non-hum* | gʊ | ɪ | gaa | --- |
| *3rd dimin.* | ga | --- | --- | --- |

The phonological shape of the negative subject pronouns suggests that they could have originated in the suppression of the initial *b* of the negative particle *ba*, at least in some of the forms, with subsequent vowel harmony: e.g. 1st person singular *mə ba → mə a → ma a*. I know of no case where the two types of negation are not interchangeable, so long as there exists a negative pronoun; however, I also know of no reason why the *b* of *ba* should be suppressed, since *b*'s are not otherwise weakened or lost phonologically.

An example of sentence negation with *ba* is given in (262) and with negative pronouns in (263)–(264). The negative pronouns are preferred, when usable, but not obligatory when the subject of the sentence is a pronoun, as can be seen in (265). For further details of the negative pronouns, see §2.1.2.1.10 below.

(262)  a        vaga        koŋ                            ba        bɛnɛ
         ART.   dog + SG.   DET. NON-HUM. SG.   NEG.   come + PAST

         'The dog did not come.'

(263)  maa              hamandaa    ke   sã        də
      NEG. PRON. 1SG.  think + PROG.  that tomorrow  PRON. 3SG. HUM.

      bɛllaa
      come + PROG.

      'I don't think that he will come back tomorrow.'

(264)  mə              hamandaa    ke   sã        daa
      PRON. 1SG.  think + PROG.  that tomorrow  NEG. PRON. 3SG. HUM.

      bɛlla
      come + PROG.

      'I don't think that he will come back tomorrow.'

(265)  də              ba   zãã  də              tɔ     bɔrɔ
      PRON. 3SG. HUM.  NEG.  want PRON. 3SG. HUM.  marry  man + SG.

      sɔrɔ
      other + HUM. SG.

      'She did not want to marry another man.'

The negative particle *ba* and the negative personal pronouns normally have a high tone. Also, a negative personal pronoun always shortens the long final *aa* of a following PROGRESSIVE verb form. I have no idea why this should be so, though I suspect that the reason must be prosodic.

In negative imperative sentences, the sentence-initial negative particle *ka* is used, as described in §1.1.1.3.2. The examples from that section are repeated here for convenience:

(266)  ka                  n      harı   mə      ĵõ     tasgʊ
      that + NEG. (CONJ.)  PRON. 2SG.  touch  PRON. 1SG.  head   basket

      'Don't (sg.) touch my hat!' *(Lit.:* 'Lest you touch my hat!'*)*

(267)  ka                  na      fʊsʊ
      that + NEG. (CONJ.)  PRON. 2SG.  move

      'Don't (pl.) move!' *(Lit.:* 'Lest you move!'*)*

In addition, there exist two negative copular verbs, *dɔ* 'not be (equal to)' (corresponding to positive *la*) and *ŋgo* 'not be (somewhere)' (corresponding to positive *wɛ̃*), which are described in the respective sub-sections of §1.2.1.1 above.

### 1.4.2 Constituent negation

Constituent negation 'proper' is only permitted in conjunction with a quantifier, as described in §1.2.5.2.6 above. It is expressed by *ba* immediately before the negated element and a further *ba* before the verb. One example is repeated here for convenience as (268). The cardinal numeral *dom* 'one' in (268), when negated, is used as the zero quantifier.

(268)    ba     vaɣa       dom   ba     bɛnɛ
           NEG.  dog + SG.  one   NEG.  come + PAST

           'No dog came.'

The negative constituents 'nothing', 'nobody', etc. of languages like English are expressed in Koromfe with a positive constituent plus sentence negation, as exemplified in (269).

(269)    halə         tẽnɛ     koŋ              kãŋ        kaa
           up to (PREP.)  Monday  DET. NON-HUM. SG.  thing + SG.  every/any (QUANT.)

           ba    tuko
           NEG.  sit

           'Nothing has happened since Monday.'

There also exists a 'not X but Y' structure described in §1.3.1.3 above.

### 1.4.3 More than one negation element in a sentence

If there is more than one negation element in a sentence, the result is negative, provided that both occur in the same clause. There is only one case in which more than one negation element occur in a single sentence, and that is the constituent negation described immediately above and exemplified in (268).

It is possible to negate a subordinate clause of a negative main clause, in which case the result is positive, as shown in (270).

(270)    maa            hamanda     ke          daa                 dɛɪ
           NEG. PRON. 1SG.  think + PROG.  that (CONJ.)  NEG. PRON. 3SG. HUM.  can

           də                bo  ke          də               bɛllɪ
           PRON. 3SG. HUM.  say  that (CONJ.)  PRON. 3SG. HUM.  come + DUR.

           'I don't think that he won't be able to say that he will come.'

### 1.4.4 Attraction of negation elements to the coordinator position

The negation elements in coordinated structures are never attracted to any other position.

### 1.4.5 Negation of a verb in a subordinate clause by the negation of the verb of a higher clause

Negation quite typically moves up from subordinate clauses towards the front of the sentence. This movement can go through more than one clause. Examples were given in (263)–(264) above, where 'I think that not X' is optionally expressed as 'I do not think that X'. However, this can only work if a single negative noun clause is embedded in a positive clause (or series of clauses — cf. §1.4.3 above). Sentences (271)–(273) show each stage of this kind of movement; the middle stage, i.e. (272), seems to be less usual than the other two.

(271)    mə        hamandaa    ke          də            bollʌʌ
         PRON. 1SG.   think + PROG.   that (CONJ.)   PRON. 3SG. HUM.   say + PROG.

         ke            daa              dɛɪ        də           bɛ
         that (CONJ.)   NEG. PRON. 3SG. HUM.   be able   PRON. 3SG. HUM.   come

         'I think that he will say that he can't come.'

(272)    mə        hamandaa    ke          daa            bollʌʌ
         PRON. 1SG.   think + PROG.   that (CONJ.)   NEG. PRON. 3SG. HUM.   say + PROG.

         ke            də             dɛɪ        də           bɛ
         that (CONJ.)   PRON. 3SG. HUM.   be able   PRON. 3SG. HUM.   come

         'I think that he won't say that he can't come.'

(273)    maa             hamanda    ke         də           bollʌʌ
         NEG. PRON. 1SG.   think + PROG.   that (CONJ.)   PRON. 3SG. HUM.   say + PROG.

         ke            də             dɛɪ        də           bɛ
         that (CONJ.)   PRON. 3SG. HUM.   be able   PRON. 3SG. HUM.   come

         'I don't think that he will say that he can come.'

# 1.5 Anaphora

## 1.5.1 Means of expressing anaphora

Anaphora is never expressed by deletion, therefore §1.5.1.1–2 are omitted.

### *1.5.1.3 Ordinary personal pronoun*

Anaphora is normally expressed with personal pronouns. Since examples abound in this monograph (e.g. (273) immediately above), none are given separately here.

### *1.5.1.4 Reflexive pronoun*

The word *gɪllɛ* 'self' can optionally be added after the ordinary personal pronoun (proclitic or disjunctive). It is usually only used when its omission would result in ambiguous reference (cf. examples (276)–(278) below). But the same word has other uses, so that it makes a poor reflexive pronoun. See below, esp. §1.6.1.1, for details.

### *1.5.1.5 Special anaphoric pronoun*

The 2nd person singular personal pronoun, *N* (a 'syllabic' nasal consonant homorganic with the following consonant), is optionally used for one special type of 3rd person singular (human or non-human) anaphora. See §1.5.2.2 below for details.

### *1.5.1.6 Other means*

The determiners or demonstrative adjectives which normally follow the noun can also be used as independent anaphoric pronouns, both in the long and the short forms (given in §2.1.1.10.1 below). These demonstratives are used exclusively for reference to an (understood) NP outside the clause in which they are contained. An example of the independent use of the human singular form *hoŋ* is given in (274) (which also contains several occurrences of determiners modifying nouns) and of the non-human singular forms (both long *koŋgo* and short *koŋ*) in (275).

(274)    hoŋ         mɔ̃    kɔ̃n         tome   də          pɛrgʊ
        DET. HUM. SG.   also   when (CONJ.)   put on   PRON. 3SG. HUM.   robe + SG.

        koŋ           də             tufu      də
        DET. NON-HUM. SG.   PRON. 3SG. HUM.   sit + DUR.   PRON. 3SG. HUM.

        bara          hoŋ           jɪka            nɛ
        husband + SG.   DET. HUM. SG.   face + SG./POSTPOS.   at (POSTPOS.)

        'When she in turn had put on her robe she sat down in front of her husband.'

(275)    kɔ         də             bole      ke         ahã    —
        then (ADV.)   PRON. 3SG. HUM.   say + PAST   that (CONJ.)   EXCL.   —

        ke           koŋgo             a      dɔfrɛ   panɛ
        that (CONJ.)   LONG DET. NON-HUM. SG.   ART.   god (SG.)   give + PAST

        dəkɔ                 —   ke          koŋ
        DISJ. PRON. 3SG. HUM.   —   that (CONJ.)   DET. NON-HUM. SG.

        dəkɔ             zɔmmɔ̃
        DISJ. PRON. 3SG. HUM.   want + DUR.

        'Then he said (that): "Aha!" God has given him **that**, that he likes **that**.'

## 1.5.2 Anaphora constellations

### 1.5.2.1 Within the clause

Here the personal pronouns are used, including optionally the disjunctive ones, and optionally with the addition of the reflexive *gɪllɛ* 'self'. The antecedent must be to the left and the anaphor to the right; the reverse order (i.e. PRONOUN - X - NP) disallows coreference of the pronoun and the NP. Examples are given in (276)–(279). Note that in (279) the antecedent of the first two *ba*'s is the three wives (introduced in previous discourse), while the third *ba* refers to three wives plus their husband, who is introduced in this clause.

(276)    mə         sa           pɔgɔ   də            gɪllɛ
        PRON. 1SG.   father + SG.   hurt   PRON. 3SG. HUM.   self

        'My father hurt himself.'

(277)    mə         sa           pɔgɔ   də            wɔ̃ndɛ
        PRON. 1SG.   father + SG.   hurt   PRON. 3SG. HUM.   hand + SG.

        'My father hurt his hand.' *(referentially ambiguous)*

(278) mə          sa          pɔgɔ  də                          gɪllɛ  wɔ̃ndɛ
      PRON. 1SG.   father + SG.  hurt  PRON. 3SG. HUM.  self   hand + SG.

      'My father hurt his own hand.'

(279) ba                la    ba                          bara         la       ba
      PRON. 3PL. HUM.   and   PRON. 3PL. HUM.   husband   EMPH.   PRON. 3PL. HUM.

      jaʊ  tubre                        a         tɔgre      kekʌm
      go    in(to) the bush (ADV.)   ART.   baobab   cut + GERUND

      'They and their husband, they go into the bush to cut baobab.'

### 1.5.2.2 Between coordinate structures

There is no difference in anaphora types between simple and coordinate structures. However, a sequence of juxtaposed clauses is the only place where the optional 'special anaphoric pronoun' *N* (a 'syllabic' nasal consonant homorganic with the following consonant) can be found. This pronoun is homophonous with the 2nd person singular personal pronoun, and it used only in subject position when the 3rd person subject (human or non-human) remains the same. Since I suspect that this formal identity is no coincidence, I have glossed this 'special anaphoric pronoun' simply as a 2nd person singular pronoun in the examples given in (280)–(281) below.

(280) a       jɔ               kʊ    a       wɔ̃nɔ̃ŋ                ŋ                 horo   a
      ART.   chief + SG.   kill   ART.   chicken + SG.   PRON. 2SG.   cook   ART.

      fãĩ                      m                pa     dɪ
      millet porridge   PRON. 2SG.   give   PRON. 3SG. HUM.

      'The chief killed a chicken, he cooked some milled porridge and gave it to him.'[38]

(281) a       vaga          la        bɛ       lɛbtə      dɪ                      ŋ
      ART.   dog + SG.   EMPH.   come   curl up   PRON. 3SG. HUM.   PRON. 2SG.

      hori
      lie down

      'The dog came and curled up beside him and lay down (to sleep).'

Although rare, this usage is also found with plural 3rd person subjects, as shown in (282); here it is still the singular 2nd person pronoun that occurs in the special anaphoric usage, and not the plural equivalent *na*.

(282)  a      sɔpa        bɛ    m          bo    ke          mə
       ART.   hunter + PL.  come  PRON. 2SG.  say   that (CONJ.)  PRON. 1SG.

      jom
      follow

      'The hunters told me to follow (them).'

### 1.5.2.3 Between superordinate and subordinate clauses

There is no change in the 'NP$_{ANTECEDENT}$ - X - pronoun' order when the relative order of superordinate and subordinate clauses changes, and no other structures are possible. Therefore §1.5.2.3.1–2 and §1.5.2.4–5 are omitted.

### 1.5.3 Elements located next to complementizers (subordinating conjunctions)

There are two special effects related to the clause-initial position (which is the position normally occupied by the subordinating conjunction). The first is the reversal of the order of the conjunction *kɔ̃N* and a full or independent demonstrative subject NP, as described in §1.1.2.4.2 above, and the second is that although no subordinating conjunction is present, the clause-initial position is the only place where the 'special anaphoric' use of the 2nd person singular pronoun *N* for a repeated 3rd person subject occurs (as described in §1.5.2.2 above).

# 1.6 Reflexives

## 1.6.1 Means of expressing reflexivity

### *1.6.1.1 Invariable reflexive pronoun*

The 'reflexive pronoun', if the term can correctly be applied to this entity, is formed from the (disjunctive or non-disjunctive) personal pronoun plus the word *gɪllɛ*.[39] Examples of the normal usage were given in §1.5.2.1 above. The word *gɪllɛ* is non-clitic, even though it never occurs completely alone.

This word *gɪllɛ* can also be used without a pronoun, e.g. in sentence (283), which was accepted by my informants, and where *a gɪllɛ pɔg(ɔ)lam* is a compound NP.

(283)   a       gɪllɛ   pɔg(ɔ)lam          ba       dɔnda
        ART.   self     injure + GERUND   NEG.   be good

       'It isn't good to hurt oneself.'

When used with a demonstrative pronoun, such as *hoŋ* in (284), *gɪllɛ* can also refer outside the current sentence to previous discourse. In (284), *hoŋ gɪllɛ* cannot refer to Kemde because the pronoun would precede its antecedent, which is not possible in Koromfe.

(284)   hoŋ     gɪllɛ   la          pɔgɔ     kemde
        DET.    self     EMPH.    injure    *(proper name)*

       'This person himself hurt Kemde.'

One other use of *gɪllɛ* occurs: in conjunction with the particle *kɔ* it forms a sentence-initial sentence adverbial (*kɔ gɪllɛ*) meaning roughly 'and so' or 'and therefore'. I term *kɔ* a particle, because it is indeterminate whether this is the adverb 'then' or the sentential relative pronoun 'which' (cf. §1.1.2.3.2 above) in topic position.

Although *gɪllɛ* looks very similar to nouns of the *-dɛ/-a* class, no plural form (including expected *gɪla*) exists, and *gɪllɛ* is used with plural pronouns, too.

Despite all these drawbacks, *gɪllɛ* still has a reflexive usage, which is shown quite clearly in (285), where *gɪllɛ* only allows coreference with the subject, not with the object of the clause; the sentence could not mean 'Badini injures Kemde for Kemde's sake'.

(285) bʌdini        pɔgɔ  kemde       də            gɪllɛ  nɛ
      (*proper name*) injure (*proper name*) PRON. 3SG. HUM.  self  for (POSTPOS.)

      'Badini injures Kemde for his own (= Badini's) sake.'

Moreover, sentence (286) is referentially impossible; the only way to express the intended meaning is (287).

(286) *a      fʊba        hãŋsɪ  kemde       də
      ART.  person + PL.  help  (*proper name*) PRON. 3SG. HUM.  gɪllɛ
                                                                self

      nɛ
      for (POSTPOS.)

      'The people help Kemde for his own sake.' *(incorrect)*

(287) a       fʊba        hãŋsɪ  kemde       də            nɛ
      ART.  person + PL.  help  (*proper name*) PRON. 3SG. HUM.  for (POSTPOS.)

      'The people help Kemde for his own sake.' *(correct)*

### *1.6.1.2 Variable reflexive pronoun*

Apart from the use of the normal personal pronouns as reflexives, there are no variable reflexive pronouns.

### *1.6.1.3 Verbal affix*

Reflexivity is never expressed by means of a verbal affix.

### *1.6.1.4 Other means*

There are no other means of expressing reflexivity.

### 1.6.2 The scope of reflexivity

When *gɪllɛ* is used together with a personal pronoun, the reflexivity is restricted to the clause. The other uses of *gɪllɛ* are not reflexive but normal anaphoric. Therefore §1.6.3 is inapplicable.

### 1.6.4 The positional possibilities of the reflexive *gɪllɛ*

Since the antecedent is always the subject NP of the clause, the reflexive element 'PRONOUN + *gɪllɛ*' can in principle be any other NP in the clause, or any modifier of such an NP.

### 1.6.5 Relations between antecedent and reflexive

|  | *Antecedent:* | *Reflexive:* | *Yes/no: (example)* |
|---|---|---|---|
| 1.6.5.1. | subject | direct object | Yes: (276) |
| 1.6.5.2. | subject | modifier of direct object | Yes: (278) |
| 1.6.5.3. | subject | indirect object (only zero-marking exists) | Yes: (288) |
| 1.6.5.4. | subject | modifier of such indirect object | Yes: (289), (290) |
| 1.6.5.5. | subject | indirect object (adposition-marking) | Yes |
| 1.6.5.6. | subject | modifier of such indirect object | Yes |
| 1.6.5.7. | subject | copular complement | No |
| 1.6.5.8. | subject | modifier of copular complement | No |
| 1.6.5.9. | subject | subject-complement (cf. 2.1.1.2.10) | No |
| 1.6.5.10. | subject | modifier of subject-complement | No |
| 1.6.5.11. | subject | object-complement | No |
| 1.6.5.12. | subject | modifier of object-complement | No |
| 1.6.5.13. | subject | object of adjective | No |
| 1.6.5.14. | subject | modifier of such object | No |
| 1.6.5.15. | subject | agent in passive/pseudopassive/ impersonal constructions | No |
| 1.6.5.16. | subject | modifier of such agent | No |
| 1.6.5.17. | subject | element in other adpositional phrase (adverbial) | Yes: (285) |
| 1.6.5.18. | subject | modifier of such element | Yes |

Since only the subject can be the antecedent of a reflexive, entries 1.6.5.19–212 of the Lingua questionnaire are all impossible. Examples for some of the 'yes' entries in the above table follow.

(288)  də　　　　　　　pa　də　　　　　　gillɛ　a　　salle　　　kebre
　　　　PRON. 3SG. HUM.　give　PRON. 3SG. HUM.　self　ART.　plate + SG.　big + SG.

　　　　'He gave himself the big plate.'

(289)  də　　　　　　　pa　(a)　　　　　salle　　　kebre　　də
　　　　PRON. 3SG. HUM.　give　ART. (*elided*)　plate + SG.　big + SG.　PRON. 3SG. HUM.

　　　　gillɛ　bi
　　　　self　child + SG.

　　　　'He gave the big plate to his own son.'

(290)  də                    pa    də                        gɪllɛ  bi       a      sallɛ
      PRON. 3SG. HUM.  give  PRON. 3SG. HUM.  self   child + SG.  ART.  plate + SG.

      kebre
      big + SG.

      'He gave the big plate to his own son.'

### 1.6.6 Reflexive relations within nominalized clauses

The reflexive element does not occur within nominalized clauses (i.e. the GERUND construction). The only construction that comes anywhere near is the impersonal use of *gɪllɛ* without a personal pronoun in a compound with the structure NP<sub>OBJ</sub>-GERUND as exemplified in (283) in §1.6.1.1 above.

### 1.6.7 Reflexive relations within ordinary noun phrases

See §1.6.1.1 above.

### 1.6.8 Reflexive structures without any overt antecedent

See §1.6.1.1 above.

### 1.6.9 Other uses of the reflexive

The reflexive *gɪllɛ* has no other uses beyond those described in §1.6.1.1 above, and there is no other reflexive. Therefore §1.6.9.1–3 are omitted.

# 1.7 Reciprocals

## 1.7.1 Means of expressing reciprocality

### *1.7.1.1 Invariable reciprocal pronoun*

The reciprocal pronoun is the word *dono*, PL. *dombʌ* 'comrade', which exists as a noun in its own right. Usually the plural *dombʌ* is used, since reciprocals always involve more than one actant; but a singular must be used in (291) when only two actants are involved.[40] Note, however, that here the reciprocal and the 'literal' meaning of *dono* are referentially identical (which is not always the case in examples given later in §1.7).

(291)  fo            ŋkaa   zãŋ  n            dono          gabrɛ
       person + SG.  every  take  PRON. 2SG.  comrade + SG.  knife + SG.

'Each person take your comrade's knife!' *(Or:* 'Take each other's knife!'*)*

In the plural, however, *ba dombʌ* '(of) their comrades' in (292) can be referentially distinct from the plain *dombʌ* 'one another('s)' in (293) for the same set of actants (e.g. out of A,B,C,D and with A,B as the subject, sentence (292) has the non-reciprocal object C,D's knives while (293) has the reciprocal object A for subject B and B for subject A).

(292)  ba                  zãŋ   ba                 dombʌ         gaba
       PRON. 3PL. HUM.     take  PRON. 3PL. HUM.    comrade + PL.  knife + PL.

'They take the knives of their comrades.'

(293)  ba                  zãŋ   dombʌ         gaba
       PRON. 3PL. HUM.     take  comrade + PL.  knife + PL.

'They take one another's knives.' *(Context: Kemde takes Badini's knife and Badini takes Kemde's.)*

### *1.7.1.2 Variable reciprocal pronoun*

There are no variable reciprocal pronouns. See (291) in §1.7.1.1 above for the only case where the singular of *dombʌ* might be interpreted as a reciprocal.

### *1.7.1.3 Verbal affix*

No verbal affix expresses reciprocality.

*1.7.1.4 Other means*

There are no other means of overtly expressing reciprocality.

## 1.7.2 The scope of reciprocality

Normally, reciprocality is restricted to the clause, i.e. the antecedent and reciprocal element must be in the same clause. However, in (294) below the antecedent is in one of the preceding clauses in a string of clauses coordinated by juxtaposition.

The reciprocal element of Koromfe is not a verbal affix, therefore §1.7.3 is omitted.

## 1.7.4 The positional possibilities of the reciprocal *dombʌ* within the clause

The reciprocal element can assume the position of any non-subject NP within the clause; the subject must normally be the antecedent of the reciprocal.

However, there exists one sequence of clauses in my corpus, given in (294), where this is not overtly the case. Moreover, since *dombʌ* here has no article, the reciprocal reading is forced because the reading as a noun 'comrades' is impossible.

(294)  gʊ                          tɛ      gʊ                        j̃ɛ̃ɪ    a
       PRON. 3SG. NON-HUM.  arrive  PRON. 3SG. NON-HUM.  grab  ART.

       tife            jondo      gʊ                          jaʊ  gʊ
       elephant + SG.  rope + SG.  PRON. 3SG. NON-HUM.  go   PRON. 3SG. NON-HUM.

       ja   j̃ɛ̃ɪ    a      jemdə                 mɔ̃    jondo      gʊ
       go   grab  ART.  hippopotamus + SG.  also  rope + SG.  PRON. 3SG. NON-HUM.

       j̃ɛ̃ɪ    gʊ                          toŋgə  dombʌ        sa
       grab  PRON. 3SG. NON-HUM.  tie     comrade + PL.  now

       gʊ                          kʊrɔ  gʊ                          kãŋsɪ    kãɪ
       PRON. 3SG. NON-HUM.  knot  PRON. 3SG. NON-HUM.  be hard  hard

   'He (= rabbit) arrives (and) he grabs the elephant's rope (and) he goes (and) grabs the hippopotamus's rope, too, (and) he grabs (the ropes and) he ties them together now (and) he knots (them and) he makes (the knot) hard.' *(Material in parentheses is not overtly present in the Koromfe sentence, but is obvious from the context.)*

Here, as so often in Koromfe, we might expect a direct object of the (otherwise transitive) verb *j̃ɛ̃ɪ* 'grab' to appear; but this is not required by the grammar, nor is it usual, especially in a sequence of clauses such as

(294), where an overt object eventually surfaces in some clause in the sequence.

## 1.7.5 Relations between antecedent and reciprocal

|  | *Antecedent* | *Reciprocal* | *Yes/no (example)* |
|---|---|---|---|
| 1.7.5.1. | subject | direct object | Yes: (295), (296), (299) |
| 1.7.5.2. | subject | modifier of direct object | Yes: (293), (300) |
| 1.7.5.3. | subject | indirect object (zero- or case-marking) | Yes: (297) |
| 1.7.5.4. | subject | modifier of such indirect object | Yes |
| 1.7.5.5. | subject | indirect object (adposition-marking) | Yes |
| 1.7.5.6. | subject | modifier of such indirect object | Yes |
| 1.7.5.7. | subject | copular complement | No |
| 1.7.5.8. | subject | modifier of copular complement | No |
| 1.7.5.9. | subject | subject-complement (cf. 2.1.1.2.10) | No |
| 1.7.5.10. | subject | modifier of subject-complement | No |
| 1.7.5.11. | subject | object-complement | No |
| 1.7.5.12. | subject | modifier of object-complement | No |
| 1.7.5.13. | subject | object of adjective | No |
| 1.7.5.14. | subject | modifier of such object | No |
| 1.7.5.15. | subject | agent in passive/pseudopassive/impersonal constructions | No |
| 1.7.5.16. | subject | modifier of such agent | No |
| 1.7.5.17. | subject | element in other adpositional phrase or case-marked modifier (adverbial) | Yes: (298), (299) |
| 1.7.5.18. | subject | modifier of such element | Yes: (300) |

Examples:

(295)  də                    dãŋ            la   mə       dãŋ          jellʌʌ
      PRON. 3SG. HUM.   house + SG.   and  PRON. 1SG.   house + SG.   see + PROG.

      dombʌ
      comrade + PL.

      'His house and my house see one another.' *(I.e. 'His house is opposite mine.')*

(296)  ʊ              dãĩ          hĩĩ   jellʌʌ        dombʌ
      PRON. 1PL.   house + PL.   two  see + PROG.   comrade + PL.

      'Our two houses see one another.' *(I.e. 'His house is opposite mine.')*

(297) ba          pandaa     dombʌ      (a)       pãõ
PRON. 3PL. HUM.   give + PROG.   comrade + PL.   ART. (*elided*)   gift

'They are giving gifts to one another.'

(298) ba          bɛllaa       la        (a)       pãõ
PRON. 3PL. HUM.   come + PROG.   with (PREP.)   ART. (*elided*)   gift

dombʌ        nɛ
comrade + PL.   for (POSTPOS.)

'They are bringing gifts for one another.'

(299) la   də          tɛ̃ŋsɪ   də          kanag   ʊkɔ
and   PRON. 3SG. HUM.   do next   PRON. 3SG. HUM.   insult   DISJ. PRON. 1PL.

la   dombʌ       ʊ        dɛ̃tə       dombʌ
with   comrade + PL.   PRON. 1PL.   pull + DUR.   comrade + PL.

'And then he insults us with one another (by making) us pull one another.'
*(Material in parentheses not overtly present but inferable)*

(300) na       zãŋ    dombʌ      gaba
PRON. 2PL.   take   comrade + PL.   knife + PL.

'You (pl.) take one another's knives.'

## 1.7.6 Reciprocal relations within nominalized clauses

The only structure which my informants accepted as being marginally acceptable was *dombʌ pãõ* 'gifts for/to one another'. However, the word *pãõ* 'gift' is not a regular formation from the verb *panam* 'give'.

## 1.7.7 Reciprocal relations within ordinary noun phrases

The reciprocal *dombʌ* can be the NP of an NP+N compound, as in *dombʌ pãõ* 'gifts for/to one another' or *dombʌ gaba* given in (300) above.

## 1.7.8 Reciprocal structures without any overt antecedent in non-finite clauses, nominalizations, or noun phrases

No such structures occur, be it in non-finite clauses, nominalizations, or noun phrases; but see example (294) in §1.7.4 above, where the antecedent is several clauses away.

### 1.7.9 Other uses of the reciprocal *dombʌ*

As mentioned in §1.7.1.2 above, the reciprocal pronoun is the word *dono*, PL. *dombʌ* 'comrade', which exists as a noun in its own right. There are no other uses of the word *dombʌ*, therefore §1.7.9.1–3 are omitted.

# 1.8 Comparison

### 1.8.1 Means of expressing comparison

There is only one standard means of expressing comparison, described in §1.8.1.4.1. Therefore §1.8.1.1–3 are omitted.

*1.8.1.4 Other means*

*1.8.1.4.1 Verbs*

Comparison is expressed by one of verbs *kɛ̃lɛɪ* or (rarer) *kɛ̃sam* meaning 'to surpass, exceed, be more than'. There is no such thing as a comparative morphological form (such as adjective) in Koromfe. Examples of comparison within a single clause are given in (301)–(303).

(301)  kemde             dɔɪ              kɛ̃          la        bʌdini
       *(proper name)*   length (SG.)    exceed    EMPH.   *(proper name)*

       'Kemde is bigger than Badini.' *(Lit.:* 'Kemde's length exceeds Badini('s).')

(302)  bʌdini            bɛ̃õ                          tao    kɛ̃laa         kemde
       *(proper name)*   coming (ACTION NOUN)      fast   exceed + PROG.   *(proper name)*

       'Badini comes faster than Kemde.' *(Lit.:* 'Badini's fast coming surpasses Kemde('s).')

(303)  də                    hõnɛ̃                       kɛ̃        də
       PRON. 3SG. HUM.      play/dancing (ACTION NOUN)   exceed   PRON. 3SG. HUM.

       tomʌ
       work + PL.

       'He plays more than he works.' *(Lit.* 'His play exceeds his work.')

*1.8.1.4.2 The comparative particle* kaɪ

This exists one further, minor possibility. The comparative particle *kaɪ* 'rather' (which is also used as a yes-no question particle) can be used together with the negative emphatic particle *dɔ* or a negated verb to form a 'more of an X than an Y' type of utterance. Examples are given in (304)–(305).

(304) də        soŋ a   fãĩ      koŋgo            a
       PRON. 3SG. HUM. take ART. millet porridge LONG DET. NON-HUM. SG. ART.

       sãjɛgam nɛ          kaɪ    — a   dɪʊ
       upset    for (POSTPOS.) rather   — ART. eating (ACTION NOUN)

       nɛ          dɔ
       for (POSTPOS.) NEG. EMPH.

       'He took that millet porridge to upset it rather than to eat it.'

(305) kɔ a    beleo            bɛŋ        bole     ke
       then ART. young person + PL. DET. HUM. PL. say + PAST that (CONJ.)

       a     kɛmmɛ̃ɛ̃       bɛŋ          jagɛ    ja    ba
       ART. old person + PL. DET. HUM. PL. go + PAST EMPH. PRON. 3PL. HUM.

       dɪraa     kaɪ   baa            fɛta
       eat + PROG. rather NEG. PRON. 3PL. HUM. cultivate + PROG.

       'Then the young people said that the old people should leave. They would eat more than they would work.'

Comparison is not only weakly represented in the grammar of Koromfe; there are even cases where the whole notion of comparison is omitted when it would be expressed in a language like English. In the fable of the elephant, the hippopotamus and the rabbit the trick used by the rabbit is to persuade the other two animals that their children will grow to be bigger if brought up in/outside the water. However, the notion of growing to be 'bigger than they would otherwise grow' is nowhere overtly expressed. Instead, the rabbit simply states the 'he will grow', as shown in (306).

(306) m        bi       vere      hem     ni
       PRON. 2SG. child + SG. raise + PAST water + SG. in (POSTPOS.)

       də            zɔmmɔ̃    də            kebsu
       PRON. 3SG. HUM. want + DUR. PRON. 3SG. HUM. grow

       'If your child is raised in water, he will grow.'

### 1.8.2 Elements that can be omitted under identity in comparison

Although there is no comparative clause, but only comparison of NP's, it is still possible to omit the second of two compared nouns within a compound NP. If the parameter of comparison is the second member of the subject compound NP, as in (301) and (302) above, it is not repeated in the object NP; for this reason it is impossible to know whether the object NP

116

is to be understood as being genitival or not. This is the only possible kind of omission in comparative structures, therefore §1.8.3–5 are omitted. Since neither of the structures in §1.8.5.1–2 exist, §1.8.5 is omitted.

### 1.8.6 Correlative comparison

Because the comparative structure is as described in §1.8.1.4.1 above, correlative comparison is not possible. Even the paraphrases given in (307)–(308) sound quite artificial.

(307) kɔ̃           homse        gʊ                    kɛ̃
       NON-SPEC. REL.   heat + PAST   PRON. 3SG. NON-HUM.   exceed

       'The warmer the better.' *(Lit.: 'That which is hot, that surpasses.')*

(308) mə          zɔ̃mmaa      kɔ̃                homoi      kɛ̃
       PRON. 1SG.   want + PROG.   NON-SPEC. REL.   heat + SG.   exceed

       koŋ
       DET. NON-HUM. SG.

       'The warmer the better.' *(Lit.* 'I want that whose heat surpasses.'*)*

## 1.9 Equatives

### 1.9.1 Means of expressing equatives

The structures of §1.9.1.1–2 do not exist.

*1.9.1.3 Equative particle associated with the equative clause or standard of equativeness only*

The equative use of the reduced adverb clause of manner comes close to this structure. An example with a full 'equative' (i.e. manner) clause is given in (309), and its more usual reduced version in (310). Note that the subordinate clause in (309) that is introduced by *kɔ̃N* is difficult to classify: it could be a temporal adverb clause or a non-specific relative clause.

(309)  bʌdini          bɛllaa                   tao  tao  mbʌʌ  kemde
       (*proper name*)  come + PROG.  fast  fast  like  (*proper name*)

       kɔm             bɛ   lɛ   kãnã
       NON-SPEC. REL.  come  thus  how

       'Badini comes as fast as Kemde.' *(Lit.:* 'Badini comes fast like how Kemde comes.'*)*

(310)  bʌdini          bɛllaa                   tao  tao  mbʌʌ  kemde
       (*proper name*)  come + PROG.  fast  fast  like  (*proper name*)

       'Badini comes as fast as Kemde.' *(Lit.:* 'Badini comes fast like Kemde.'*)*

*1.9.1.4 Verbs*

As with comparatives, the normal exponents of equativeness are verbs expressing the notion of equality. Examples are given in (311)–(314). Sentences (311) and (312) use the verb *tɛram* 'to arrive, reach' (a full verb which has all inflectional forms) to express equativeness; note the compulsory change of tense to PAST in the negative sentence (312). In sentences (313) and (314), equativeness is expressed by the verb *maŋ* 'resemble, equal' (a verb which has all inflectional forms apart from an INFINITIVE / ACTION NOUN).

(311)  kemde           dɔɪ             tɛ      bʌdini
       (*proper name*)  length (SG.)  arrive  (*proper name*)

       'Kemde is as big as Badini.' *(Lit.:* 'Kemde's length reaches Badini's.'*)*

(312)    kemde        dɔɪ        ba    tɛrɛ        bʌdini
        (*proper name*)   length (SG.)   NEG.   arrive + PAST   (*proper name*)

'Kemde is not as big as Badini.' *(Lit.:* 'Kemde's length has not reached Badini's.'*)*

(313)    bʌdini        homoi        la    kemde        dʊrʊ   maŋ
        (*proper name*)   heat/speed (SG.)   and   (*proper name*)   all    equal

        dombʌ
        comrade + PL.

'Badini is as fast as Kemde.' *(Lit.:* 'Badini's speed and Kemde's both equal one another.'*)*

(314)    bʌdini        la    kemde        dʊrʊ   homoi        maŋ
        (*proper name*)   and   (*proper name*)   all    heat/speed (SG.)   equal

        dombʌ
        comrade + PL.

'Badini is as fast as Kemde.' *(Lit.:* '[Badini and Kemde both]'s speed equal one another.'*)*

## 1.9.2 Elements that can be omitted under identity in equatives

Again, ignoring the fact that these are not really equative clauses, the NP object of the equative clause need not contain the parameter of comparison (though it can, optionally, in (311)–(313)). The structure in (314), with a coordinated subject NP, does not allow the repetition of the parameter of comparison in the NP object.

     In view of the structures involved here, §1.9.3–6 are not applicable.

# 1.10 Possession[41]

### 1.10.1 Means of expressing possession

Possession can be expressed by possessive personal pronouns (proclitic or disjunctive), which precede the noun which they modify. The first two words of (315) *də bara* 'her husband' are a typical example.

There also exist verbs expressing possession, e.g. *halam* 'to own, be the master of, keep', *hɔ̃ŋ(ɔ̃)nam* 'to bring, have, possess, keep'. These verbs have all inflectional forms. The subject of the verb is the possessor and the direct object the thing possessed, just like the English construction with verbs such as *have* and *own*, as exemplified in (315) for *halam*. However, unless the notion of possession is particularly emphasized, the ordinary verb *wɔ̃flɛı* 'to have, own' suffices, as exemplified in (316). This verb only has its action noun and durative and progressive inflectional forms.

(315)  də                     bara            wılı          dəkɔ
       PRON. 3SG. HUM.   husband + SG.   *(proper name)*   DISJ. PRON. 3SG. HUM.

       la          haləfə         dı
       EMPH.   own + DUR.   PRON. 3SG. HUM.

       'Her husband Willy, it's him who owns her.'

(316)  ba                    wɔ̃faa          bɔ̃nɛ         hĩĩ    la    wɔ̃nɛ      hĩĩ
       PRON. 3PL. HUM.   have + PROG.   goat + PL.   two   and   hen + PL.   two

       'They have two goats and two hens.'

In addition to the verbs, the noun *jɔ̃ŋgʋ* 'property, possession(s)' can be used with a possessive personal pronoun in a copula construction (usually with topicalization of the possessed object). This is exemplified in (317).

(317)  a     dããŋ         koŋ                mə             jɔ̃ŋgʋ          la
       ART.   house + SG.   DET. NON-HUM. SG.   PRON. 1SG.   property (SG.)   COPULA

       'The/this house is my property.'

The noun *saa* 'owner, proprietor' is used very frequently in Koromfe to indicate possession. Consider the phrase given in (318), which is the normal expression for 'generous', but literally means 'owner of whiteness of the stomach'.[42] It involves a compound *fɔr(ʋ) pɔ̃nəmɛ̃ɛ̃* 'whiteness of the stomach' within a compound, and is used like any other adjective, fol-

lowing the noun which it qualifies, e.g. *a bɔrɔ fɔr(ʋ) pɔ̃nəmɛ̃ɛ̃ sa* 'a generous man'.[43] See §2.3.1.1.3 below for further compounds with *saa*.

(318)  fɔr(ʋ)  pɔ̃nəmɛ̃ɛ̃  sa
       stomach + SG.  whiteness (SG.)  owner + SG.

'generous person' *(lit.:* 'owner of whiteness of the stomach.'*)*

### 1.10.2 Alienable and inalienable possession

No distinction is made between alienable and inalienable possession.

### 1.10.3 Temporary and permanent possession

No distinction is made between alienable and inalienable possession.

### 1.10.4 Possession relative to persons, animals, and things

No distinction is made between possession relative to possessed persons, animals, and things. The distinction between human, non-human and diminutive possessors is a general property of the pronoun system (cf. §2.1.2 below); this distinction is not made in the non-pronominal means of expressing possession.

### 1.10.5 Present and past possession

No distinction is made between present and past possession, apart from the tense of the verb and optional temporal adverbs. There is no simple way to express the notion 'my former X' using a possessive adjective.

## 1.11 Emphasis

### 1.11.1 Sentence emphasis

*1.11.1.1 Non-contradictory emphasis*

The final particle *ja* can express non-contradictory sentence emphasis, and at the same time suggest, according to my informants, that further explication is forthcoming. One of the fables in my collection of texts (Rennison, 1986b) begins with sentence (319), which contains the emphatic particle *la* (which here emphasizes the NP *a jergʌ*) and sentence-final *ja* (which emphasizes the whole sentence).[44]

(319)    a     jergʌ       la     tuko    ja
         ART.   rabbit + SG.   EMPH.   sit/exist   EMPH.

         '(Once upon a time) there was **a rabbit**.' *(Lit.:* '**A rabbit** existed.*')*

The position of the particle *ja* is normally, but by no means always, clause-final. In (320) there are two occurrences of *ja*,[45] the first of which has only a debatable clause-final position (i.e. preceding the quoted speech). This kind of multiple emphasis is not uncommon.

(320)   kɔ   a    kɛmmɔ̃         hoŋ            bole       ja      ke
         then   ART.   old person + SG.   DET. HUM. SG.   say + PAST   EMPH.   that (CONJ.)

         a     kiŋkirgʌ             kɛŋ          j̃ɛ̃ŋsɪ     ja
         ART.   spirit of the bush + SG.   DET. DIMIN. SG.   stand up   EMPH.

         'Then the old man said that the spirit of the bush should stand up.'

(321)   ɪ                    hɔ̃ŋɔ̃   a     dombʌ        timsi
         PRON. 3PL. NON-HUM.   have   ART.   comrade + PL.   fight (ACTION NOUN, PL.)

         ɪ                    sula         ja     gʌbə   dombʌ
         PRON. 3PL. NON-HUM.   forehead + PL.   EMPH.   strike   comrade + PL.

         'They fight and fight one another, and their foreheads bang together.'

However, *ja* can also occur at other positions in the clause, as shown in (321), where the banging together of the foreheads of the fighting hippopotamus and elephant forms the climax (and end) of their tug-of-war.

Although it cannot easily be distinguished from constituent emphasis of the verb only, both contradictory and non-contradictory emphasis of a sentence can also be expressed by the use of the emphatic particle *la* after the verb.[46] In contradistinction to the emphasis of an NP, the emphatic particle in this usage cannot be replaced by the negative emphatic particle

*dɔ*. Instead, normal negation with *ba* or a negative pronoun must be used. A positive example is given in (322) and a negative one in (323).

(322)  gʋ                          ja  la    a    hem          ni
       PRON. 3SG. NON-HUM.  go  EMPH.  ART.  water (SG.)  to (POSTPOS.)

       'He (= the elephant) goes into the water.'[47]


(323)  də                      bo   ke           də                      jã            ba
       PRON. 3SG. HUM.  say  that (CONJ.)  PRON. 3SG. HUM.  mother + SG.  NEG.

       kaŋna         la
       be strong    EMPH.

       'He says that his mother is not well.'

Finally there exists an adverb-like particle *kɔ*, meaning 'as far as X is concerned' or 'anyway', which might be considered to express emphasis. Examples are given in §1.12.1.1 below.

### 1.11.1.2 Contradictory emphasis

Contradictory sentential emphasis can only be expressed by *la* following the verb (i.e. in the same way as one type of non-contradictory emphasis), as described in the previous section. A further example us given in (324), where the contradictory reading is overt, but again interpretable as contradictory emphasis on the verb only.

(324)  mə                    hamandaa         ke           də                      dɪ   la
       PRON. 1SG.  think + PROG.  that (CONJ.)  PRON. 3SG. HUM.  eat  EMPH.

       (a)                   fãɪ             koŋ                           —
       ART. (*elided*)  millet porridge  DET. NON-HUM. SG.    —

       daa                          sãjɛgɛ           gʋ
       NEG. PRON. 3SG. HUM.  upset + PAST  PRON. 3SG. NON-HUM.

       'I think that he **ate** millet porridge — he didn't upset it.'


### 1.11.2.1 Constituent emphasis (contrastive and non-contrastive)

Since emphasis of the verb and sentential emphasis are indistinguishable and were dealt with in the previous two sections, the rest of this section and its sub-sections is concerned with emphasized nominal (including adjectival) and adverbial constituents.

I have discovered no case where a formal distinction is made between contrastive and non-contrastive emphasis. An emphasized noun phrase or adverbial is positioned at the beginning of the sentence and is followed by

the emphatic particle *la*. When it is added as a post-sentential afterthought it can be regarded as an elliptical sentence consisting of the emphasized constituent only — and therefore also in sentence-initial position.

### *1.11.2.1.1 Stress/accent*

The sentence-initial emphasized constituent usually bears the strongest stress and highest pitch in the sentence by default. The device of contrastive constituent stress (i.e. higher pitch) can be used, but is relatively rare; the other syntactic devices of emphasis and topicalization are preferred.

### *1.11.2.1.2 Particles*

Constituent emphasis, like sentence emphasis, is expressed with the emphatic particle *la*. But unlike sentence (or verb) emphasis, the negative emphatic *dɔ* can also be used, in which case the sentence has the meaning 'it isn't X that...'. The emphatic particle follows the emphasized constituent, and together they are moved to sentence-initial position.

### *1.11.2.1.3 Movement (without dislocation) of the emphasized element*

### *1.11.2.1.3.1 Movement to initial position*

The emphasized NP is moved to clause-initial position (but follows the topic NP, if there is one). This emphasized NP almost always has an emphatic particle, but cf. §1.11.2.2.1.1, examples (333)–(336) for one problematic text where the narrator sometimes omits the emphatic particle.

### *1.11.2.1.3.2 Movement to final position*

Movement to final position does not occur, except in an 'afterthought' structure, which I consider to be a separate elliptical sentence.

### *1.11.2.1.3.3 Movement to preverbal position*

There is no movement of an emphasized element to preverbal position, but an emphasized subject NP is in preverbal position from the outset.

### *1.11.2.1.3.4 Movement to other positions*

There is no movement of an emphasized element to any other position.

### *1.11.2.1.4 Clefting*

Clefting does not occur.

### 1.11.2.1.5 Pseudoclefting

In pseudoclefting, the emphasized constituent is moved to sentence-initial position and followed by the copula (positive *la* or negative *dɔ*) and then a relative clause introduced by *kɔN*. Examples are given in (325)–(327).[48]

(325)  kemde          la       kɔnə            mə          na   dɛ̃ɛ̃
       (*proper name*) COPULA   NON-SPEC. REL.  PRON. 1SG.  see  yesterday

       kon[49]
       DET. NON-HUM. SG.

       'It's Kemde I saw yesterday.'

(326)  kemde          la       kɔm             bɛnɛ          nɛn
       (*proper name*) COPULA   NON-SPEC. REL.  come + PAST   thus

       kon
       DET. NON-HUM. SG.

       'It was Kemde who (just) came.'

(327)  kemde          dɔ            kɔm             bɛ     kon
       (*proper name*) NEG. COPULA   NON-SPEC. REL.  come   DET. NON-HUM. SG.

       'It isn't Kemde who came.'

### 1.11.2.1.6 Dislocation

### 1.11.2.1.6.1 Left dislocation

Constituents which are left-dislocated to the sentence-initial position (but have no emphatic particle) do exist, but are what I consider to be the topic of the sentence — though clearly there are many cases where one could consider the topic of the sentence to be emphasized. (Cf. also §1.11.2.2.1.1 below.) However, such constituents do not always have a position within the sentence from which they could be said to have been moved (i.e. the topic can be virtually anything), and when they do have a structural position within the sentence, this position is filled with some pronominal element. See §1.12 below for details of topics.

To show that topics are distinct from, and compatible with, emphasized constituents, sentences (328)–(329) show how they can be combined. Note that the topic constituent takes precedence over the emphasized constituent (i.e. is always in absolute sentence-initial position). (The topic NP is glossed as 'as for X' and the pause-like dislocation intonation is transcribed with a dash '—'.) In (328) we have a topic NP followed by a

pseudoclefted emphasized subject NP and in (329) followed by an emphatic particle. Comparison of these two sentence types shows that the homophony of the COPULAS and the EMPHATIC particles, both positive and negative, cannot be a coincidence.[50]

(328)  kemde          — dəkɔ                    dɔ            kɔ̃m
       (*proper name*)  — DISJ. PRON. 3SG. HUM.  NEG. COPULA  NON-SPEC. REL.

       bɛ     koŋ
       come   DET. NON-HUM. SG.

       'As for Kemde, it's not him who came.'

(329)  kemde          — dəkɔ                    dɔ            bɛ
       (*proper name*)  — DISJ. PRON. 3SG. HUM.  NEG. EMPH.   come

       'As for Kemde, **he** didn't come.'

### 1.11.2.1.6.2 Right dislocation

Right dislocation does not occur.

### 1.11.2.1.6.3 Other dislocation

No other kind of dislocation occurs.

### 1.11.2.1.7 Other possibilities

The 'not X but Y' structure described in §1.3.1.3 above under the heading of coordination might equally be considered to be a type of emphasis. It can be used for both NPs (including GERUND compounds) and adverbials, and also marginally for attributive nominal adjectives, as described in §1.11.2.2.1.2 below. An example using GERUND compounds, which is the closest that this structure comes to expressing sentence emphasis, is given in (330).

(330)  a      dãŋ            koŋ                  wɔkam           dɔ
       ART.   house + SG.    DET. NON-HUM. SG.   break + GERUND  NEG. EMPH.

       də                  zɔmmɔ̃          — gʊ                   lebʌm
       PRON. 3SG. HUM.     want + DUR.    — PRON. 3SG. NON-HUM.  built + GERUND

       la
       EMPH.

       'It's not to destroy the house that he wants, but to build it.'

*1.11.2.1.8 Combinations of different types of constituent emphasis*

There are only two-and-a-half possibilities. Either §1.11.2.1.1 (stress), §1.11.2.1.2 (particle) and §1.1.2.1.3.1 (movement to initial position) are combined, or there is pseudoclefting (which can be said to combine with §1.11.2.1.1 (stress), since the subject NP normally bears the stronger stress in a sentence). The 'halfth' possibility is the 'not X but Y' structure in §1.11.2.1.7, which only occurs alone and cannot be combined with anything else.

*1.11.2.2 Elements which can be emphasized by the various means*

*1.11.2.2.1.1 Noun phrase*

Examples of movement of an NP to clause-initial position with a following emphatic particle are given in (331)–(332).

(331)  kemde         la      da      bɛ
       (*proper name*)  EMPH.   past    come

       'It was Kemde who came.'


(332)  kemde         dɔ      bɛ
       (*proper name*)  NEG. EMPH.  come

       'It wasn't Kemde who came.'

In one text, but quite incontrovertibly and systematically, the emphatic particle *la* is omitted.[51] Examples are given in (333)–(336). The sentence-initial NP is clearly emphatic and not the topic, because a) there is no pausal intonation, b) there is no pronoun copy, and c) most of the NPs have too little semantic content to make a good topic.

(333)  mɔkɔ              n              zakɛ
       DISJ. PRON. 1SG.   PRON. 2SG.     trick + PAST

       'You tricked **me**.'


(334)  mɔkɔ              n              zɔmmɔ̃          ŋ              kʊ
       DISJ. PRON. 1SG.   PRON. 2SG.     want + DUR.    PRON. 2SG.     kill

       'You wanted to kill **me**.'

(335)  kɔ   dǝ              bole      ke         woo  ŋkɔ
       then  PRON. 3SG. HUM.  say + PAST  that (CONJ.)  EXCL.  DISJ. PRON. 2SG.

       ja      kɔ̃nd  a     pʊfɛ   a     sanam    mǝkɔ          kɔ̃ndɛ
       EMPH.  find   ART.  viper  ART.  gold (SG.)  DISJ. PRON. 1SG.  find + PAST

       mǝkɔ            kɔ
       DISJ. PRON. 1SG.  in any case

       'Then he said: "Hey. It's you who found a viper. I found **gold**, I did."'

(336)  kɔ           dǝ             bole      ke      ahã    ——
       then (ADV.)  PRON. 3SG. HUM.  say + PAST  that (CONJ.)  EXCL.  ——

       ke          koŋgo               a     dɔfrɛ   panɛ
       that (CONJ.)  LONG DET. NON-HUM. SG.  ART.  god (SG.)  give + PAST

       dǝkɔ              ——  ke           koŋ
       DISJ. PRON. 3SG. HUM.  ——  that (CONJ.)  DET. NON-HUM. SG.

       dǝkɔ              zɔmmɔ̃
       DISJ. PRON. 3SG. HUM.  want + DUR.

       'Then he said (that): "Aha!" God has given him **that**, that he likes **that**.'

### 1.11.2.2.1.2 Adjectives

A predicative nominal adjective cannot be emphasized within a copula-type sentence with the structure NP — COPULA — ADJECTIVE. Whenever a structure ADJECTIVE — EMPHATIC PARTICLE occurs, the adjective must be interpreted as a nominalized adjective.

An attributive adjective cannot be emphasized alone using the emphatic particles *la* or *dɔ*; it must be emphasized (and thereby moved to sentence-initial position) together with the whole NP or PP in which it is contained. Thus, for example, (337) is a normal emphasized sentence, but a structure like (338), with or without the first article *a*, is impossible.

(337)  a     luko      bĩnĩŋ      la       mǝ        na
       ART.  cat + SG.  black + SG.  EMPH.  PRON. 1SG.  see

       'I saw **a black cat**.' *(correct)*

(338)  *a    bĩnĩŋ      la      mǝ        na   a     luko
        ART.  black + SG.  EMPH.  PRON. 1SG.  see  ART.  cat + SG.

       'I saw a **black** cat.' *(incorrect)*

Similarly, the pseudocleft structure is only possible with a full NP or PP, as shown in (339). The structure in (340) (with or without the first article *a*) is impossible. Note, however, that (339) in fact has *a bĩnĩŋ*

'black' in the position of the subject NP, i.e. before the COPULA *la* — a structure which cannot occur sentence-initially.[52] In non-emphasized sentences, a nominal adjective does not normally occur in this position. Indeed, my informant Souleymane suggested adding a sentence-final pronoun *gʊ* to (339), referring to the cat, 'for clarification'.

(339) a    luko    kɔ̃nə        mə      na  koŋgo
      ART.  cat + SG.  NON-SPEC. REL.  PRON. 1SG.  see  LONG DET. NON-HUM. SG.

      a    bĩnĩŋ      la
      ART.  black + SG.  COPULA

      'It's a black cat that I saw.' *(Lit.:* 'That cat that I saw, it's a black one.'*)*

(340) *a    bĩnĩŋ      la     a    luko    kɔ̃nə        mə        na
      ART.  black + SG.  COPULA  ART.  cat + SG.  NON-SPEC. REL.  PRON. 1SG.  see

      koŋ
      DET. NON-HUM. SG.

      'It's a black one, the cat that I saw.' *(incorrect)*

Because the adjective cannot be emphasized alone, using the NEGATIVE EMPHATIC particle *dɔ* in place of *la* in sentence (339) negates the whole NP and produces the reading 'it wasn't **a black cat** that I saw' — i.e. the NP could be contrasted with, say, a black dog. In (340), on the other hand, with the pseudocleft structure, replacing *la* (here a COPULA!) with *dɔ* produces the correct results. I.e. *a luko kɔ̃nə mə na koŋgo a bĩnĩŋ dɔ* means (literally) 'That cat that I saw, it isn't a black one.'

The 'not X but Y' structure can be used with an attributive (nominal) adjective alone in its second part, but not in its first, as shown in (341).

(341) a    luko    bĩnĩŋ      dɔ       mə      na  —  a
      ART.  cat + SG.  black + SG.  NEG. EMPH.  PRON. 1SG.  see  —  ART.

      wãnãŋ      la
      spotted + SG.  EMPH.

      'It's not a black cat that I saw, but a spotted one.'

Finally, for completeness' sake I must add examples (342) (positive) and (343) (negative), which my informants considered to be a good alternative structure; they use the verbal adjective *bĩnəmãʌ̃* instead of the COPULA plus nominal adjective *bĩnĩŋ*.

(342)   a     luko      kɔ̃nə           mə      na   koŋ
          ART.  cat + SG.  NON-SPEC. REL.  PRON. 1SG.  see  DET. NON-HUM. SG.

          bĩnəmʌ̃ʌ̃
          be black

          'The cat that I saw is black.'

(343)   a     luko      kɔ̃nə           mə      na   koŋ          ba
          ART.  cat + SG.  NON-SPEC. REL.  PRON. 1SG.  see  DET. NON-HUM. SG.  NEG.

          bĩnəmʌ̃ʌ̃
          be black

          'The cat that I saw is not black.'

### 1.11.2.2.1.3 Verbs

Emphasis of the verb using the VERB — *la* (positive) or VERB — *dɔ* (negative) structure (without movement) is also used for sentential emphasis and can hardly be distinguished from it. See §1.11.1 above for details.

There exist no other ways of emphasizing a verb (except of course by the use of adverbials such as *handa* 'really').

### 1.11.2.2.1.4 Adverbials

Adverbs and pre-/postpositional phrases can be emphasized using the same mechanism as NPs, i.e. addition of a final particle *la* (positive) or *dɔ* (negative) and movement of the whole emphasized constituent to sentence-initial position. One example of each type is given below: a simple adverb in (344), a postpositional phrase in (345), and a prepositional phrase in (346).

(344)   dãã̃n(ɛ)  la    də           wɛ̃
          at home  EMPH.  PRON. 3SG. HUM.  be

          'He is **at home**.'

(345)   a     dãŋ      koŋ           jɪka    n(ɛ)      la
          DET.  house + SG.  DET. NON-HUM. SG.  face + SG.  at (POSTPOS.)  EMPH.

          d(ə)             tufu
          PRON. 3SG. HUM.  sit + DUR.

          'He's sitting **in front of the house**.'

(346) la          bʌdini          la      də            jagɛ
      with (PREP.)  (*proper name*)  EMPH.  PRON. 3SG. HUM.  go + PAST

'He left **with Badini**.'

Sentence (345) is also possible in a 'not X but Y' structure — here reversed to '**Y**, not X'. Note that the NP of the original PP is replaced by the pronoun *gʊ* in the second (elliptical) clause.

(347) a        dãŋ            koŋ                    jɪka        n(ɛ)        la
      DET.  house + SG.  DET. NON-HUM. SG.  face + SG.  at (POSTPOS.)  EMPH.

      d(ə)                    tufu            —   gʊ                    bɛllɛ
      PRON. 3SG. HUM.  sit + DUR.     —   PRON. 3SG. NON-HUM.  back + SG.

      n(ɛ)          dɔ
      at (POSTPOS.)  NEG. EMPH.

'He's sitting **in front of the house**, not behind it.'

The (compound) postposition *jɪka nɛ* in (347), even though structurally a postpositional phrase, cannot be emphasized alone to form a structure like *jɪka nɛ la a dãŋ koŋ də tufu* or *jɪka nɛ la də tufu a dãŋ koŋ*.

Adverbial clauses cannot be emphasized.

### 1.11.2.2.2.1 Constituents of main clause

Any constituent of a main clause can be emphasized using *la* or *dɔ* and movement to clause-initial position. One example each is given below for emphasis of the subject NP (348), direct object NP (349) and indirect object NP (350).

(348) kemde            la      bɛ
      (*proper name*)  EMPH.  come

'**Kemde** came.'

(349) kemde            la      mə              na  dɛ̃ɛ̃
      (*proper name*)  EMPH.  PRON. 1SG.  see  yesterday

'I saw **Kemde** yesterday.'

(350) bʌdin            la      mə              panɛ            fãĩ
      (*proper name*)  EMPH.  PRON. 1SG.  give + PAST  millet porridge

'I gave millet porridge to **Badini**.'

Also, any constituent of a main clause can be emphasized using the pseudocleft structure. One example each is given below for emphasis of the subject NP (351), direct object NP (352) and indirect object NP (353).

131

(351)  kemde          la      kɔm              bɛ
       (*proper name*)  EMPH.   NON-SPEC. REL.   come

       'It's Kemde who came.'

(352)  kemde          la      kɔnə             mə      na   dɛ̃ɛ̃
       (*proper name*)  EMPH.   NON-SPEC. REL.   PRON. 1SG.  see  yesterday

       koŋ
       DET. NON-HUM. SG.

       'It's Kemde I saw yesterday.'

(353)  bʌdin          la      kɔnə             mə      panɛ
       (*proper name*)  EMPH.   NON-SPEC. REL.   PRON. 1SG.  give + PAST

       fã̌ĩ            koŋ
       millet porridge  DET. NON-HUM. SG.

       'It's Badini I gave millet porridge to.'

### 1.11.2.2.2.2 Constituents of subordinate clauses

The emphasis of constituents of finite subordinate clauses, in the clause types in which it is possible (see below), is identical to emphasis of the same constituents in main clauses. There are no additional restrictions that I know of. However, a constituent of a subordinate clause can only be emphasized within that clause — i.e. movement to initial position means subordinate-clause-initial, not main-clause-initial position.

Non-finite subordinate clauses only exist marginally (as GERUND compounds); their 'constituents' cannot be emphasized by any means, although the whole 'clause' can, as shown in (354).

(354)  a      dã̌ŋ          koŋ              wɔkam            la
       ART.   house + SG.   DET. NON-HUM. SG.  break + GERUND   EMPH.

       də             zɔmmɔ̃
       PRON. 3SG. HUM.  want + DUR.

       'He wants **to destroy the house**.'

### 1.11.2.2.2.2.1 Noun clauses introduced by ke

There is no additional restriction on the constituents which can be emphasized using *la* or *dɔ* within a noun clause introduced by *ke*.[53] Examples of (simple and complex) subject NP emphasis are given in (355) and (356), of verb/clause emphasis in (357) and of adverb emphasis in (358).

(355)    mə      sa      hamandaa    ke       (a)
       PRON. 1SG.   father + SG.   think + PROG.   that (CONJ.)   ART. (*elided*)

       mɛrəgʊ    la    wɔfə    dɪ
       cold + SG.   EMPH.   have + DUR.   PRON. 3SG. HUM.

       'My father thinks that he has **a cold**.' *(Lit.: ...that a cold has him.)*[54]

(356)    kɔn        də          sumbote      a    joroŋ
       when (CONJ.)   PRON. 3SG. HUM.   open lid of + PAST   ART.   pot

       koŋ               də           kɔndʊ   ke       (a)
       DET. NON-HUM. SG.   PRON. 3SG. HUM.   find   that (CONJ.)   ART. (*elided*)

       sanam    la    hibu   a    sanam    gʊma      la     hibu   a
       gold (SG.)   EMPH.   fill   ART.   gold (SG.)   lump + PL.   EMPH.   fill   ART.

       joroŋ   koŋ
       pot     DET. NON-HUM. SG.

       'When he opened the lid of the pot he found that the pot was full of **gold**, full of **lumps of gold**.' *(Lit.: ...found that gold filled, lumps of gold filled the pot.)*

(357)    mə        hamandaa    ke        də           dɪ   la
       PRON. 1SG.   think + PROG.   that (CONJ.)   PRON. 3SG. HUM.   eat   EMPH.

       (a)            fãɪ            koŋ
       ART. (*elided*)   millet porridge   DET. NON-HUM. SG.

       'I think that he **ate** the millet porridge.' *(Or:* 'I think that **he ate the millet porridge**.'

(358)    mə        hamandaa    ke        tubre              la
       PRON. 1SG.   think + PROG.   that (CONJ.)   in(to) the bush (ADV.)   EMPH.

       ba              dʊrʊ   gonde
       PRON. 3PL. HUM.   all    leave + PAST

       'I think that they have all left for **the bush**.'

The wh-question words, which often have *la*-emphasis in a main clause, keep the *la* when embedded, as shown in (359).

(359)    ŋ         hamandaa    ke        ase       la
       PRON. 2SG.   think + PROG.   that (CONJ.)   what (QU.)   EMPH.

       də           bake
       PRON. 3SG. HUM.   do + PAST

       'What do you think he did?' *(Lit.:* 'You think that what did he do.'*)*

There is also no difference when the conjunction *ke* is used in the sense of 'because', as exemplified by (360).

(360)  də                    horʌʌ          ke                      (a)              dumdɛ
       PRON. 3SG. HUM.   run + PROG.   that/because (CONJ.)   ART. (*elided*)   lion + SG.

       la          gɔmmə          dɪ
       EMPH.   chase + DUR.   PRON. 3SG. HUM.

       'He is running because a lion is chasing him.'

The pseudocleft structure also has no additional restrictions when used in a noun clause introduced by *ke*. Each of the example sentences given above for main clauses can be preceded by *mə hamandaa ke...* 'I think that...' and is a correct sentence of Koromfe. The only non-elicited example in my corpus is given in (361).[55]

(361)  ke             dəkɔ                      dɔ                  kɔ̃m               pɔgɔ
       that (CONJ.)   DISJ. PRON. 3SG. HUM.   NEG. COPULA   NON-SPEC. REL.   injure

       bakɔ                 fo              jere   dɛ̃        koŋ
       PRON. 3PL. HUM.   person + SG.   here   yesterday   DET. NON-HUM. SG.

       '[He said] "...that it wasn't him who injured one of them here yesterday."'

Finally, adverb clauses of PURPOSE, although introduced by (what seems to be) the same conjunction *ke* that is described in this section, do not permit any kind of emphasis (either with *la* or *dɔ*, or by pseudoclefting), whilst adverb clauses of REASON (also introduced by *ke*) can be emphasized by both methods.

### 1.11.2.2.2.2.2 Adjective clauses (relative clauses)

No constituent of a relative clause can be emphasized by any method.

### 1.11.2.2.2.2.3 Adverb clauses

No constituent of an adverb clause of time (§1.1.2.4.2.1), manner (§1.1.2.4.2.2 — not an independent clause type), purpose (§1.1.2.4.2.3), condition (§1.1.2.4.2.5), result (§1.1.2.4.2.6), or degree (§1.1.2.4.2.7 — not an independent clause type) can be emphasized by any method.

Adverb clauses of cause (§1.1.2.4.2.4), on the other hand, can be emphasized by either method.[56] Examples are given in (362)–(363).

(362)  də                    horʌʌ          ke                (a)              dumdɛ
       PRON. 3SG. HUM.   run + PROG.   because (CONJ.)   ART. (*elided*)   lion + SG.

       la          gɔmmə          dɪ
       EMPH.   chase + DUR.   PRON. 3SG. HUM.

       'He is running because **a lion** is chasing him.'

(363)  də                    horʌʌ         ke              (a)             dʊmdɛ
       PRON. 3SG. HUM.  run + PROG.  because (CONJ.)  ART. (*elided*)  lion + SG.

       la      kɔ̃ŋ          gɔmmə          dɪ
       EMPH.  NON-SPEC. REL.  chase + DUR.   PRON. 3SG. HUM.

       'He is running because it's a lion that's chasing him.'

### 1.11.2.2.2.3 Constituents of noun phrases

No constituent of a noun phrase can be emphasized on its own by any method; the whole noun phrase must be emphasized. (Cf. for example the adjectives described in 1.11.2.2.1.2 above.)

### 1.11.2.2.2.4 Constituents of coordinate constructions

No constituent can be emphasized if it is positioned within a higher-level constituent that can be coordinated (i.e. noun phrase or adverbial), because only the highest-level constituent can be emphasized. The internal structure of clauses coordinated with *la* is independent, and so may contain emphasized constituents as described in the previous sections.

### 1.11.2.2.2.5 Emphasis of more than one constituent simultaneously

It is never possible to emphasize more than one constituent of a clause, although clause emphasis with *ja* is compatible with constituent emphasis, as was seen in §1.11.1.1, example (319) above.

### 1.11.2.2.3 Marking of the site from which movement occurs

### 1.11.2.2.3.1 Marking with a copy of the emphasized element

This only occurs 'accidentally', when the emphasized element is a pronoun (see immediately below).

### 1.11.2.2.3.2 Marking with a pro-form of the emphasized element

Optionally, when the sentence has the pseudocleft structure and the main verb of the sentence is a copula with a nominal adjective subject, a pronoun copy of the moved NP occurs, as shown in (364), which is an optional variant of (339) above.

(364)  a       luko      kɔ̃nə              mə            na   koŋgo
       ART.    cat + SG.  NON-SPEC. REL.    PRON. 1SG.    see  LONG DET. NON-HUM. SG.

       a       bĩnĩŋ     la         gʊ
       ART.    black + SG.  COPULA  PRON. 3SG. NON-HUM.

       'It's a black cat that I saw.' *(lit.: 'That cat that I saw, it's a black one.')*

*1.11.2.2.3.3 Marking with a particle*

There is no particle of this kind.

*1.11.2.2.3.4 No marking*

The absence of any marking is the general case, barring the optional pronoun mentioned in §1.11.2.2.3.2 above.

### 1.11.3 Focus of a yes-no question

I have never found nor been able to elicit a focused yes-no question, even though my suspicion is it ought to be possible to stick a yes-no question particle on the end of any sentence whatsoever. However, it is possible to use a yes-no question immediately following a topic NP, as in (365).

(365)  kemde            —   də              bɛllaa        sã         bɪ
       *(proper name)*  —   PRON. 3SG. HUM.  come + PROG.  tomorrow   QUEST.

       'Kemde — will he come tomorrow?'

# 1.12 Topic

## 1.12.1 Means of indicating the topic of a sentence

### *1.12.1.1 Particle*

There exists a particle *kɔ*, which means 'as far as X is concerned' or 'anyway, in any case', which could be considered to be an emphatic or a topicalizing particle. It is only used with an NP or an adverbial, which it follows. The *kɔ*-phrase can very often be found in sentence-initial position, as in (366)–(367), but also in the middle of sentences as in (368)–(370). In (370) the *kɔ* modifies the whole conditional adverb clause *tigɛ kemde* 'if it is (a question of) Kemde' (assuming that this phrase is analysed by speakers as a clause).[57]

(366)  məkɔ          kɔ            ba      dɛı   mə            zakam
       DISJ. PRON. 1SG.  in any case   NEG.   can   PRON. 1SG.   persuade

       dı                  də                  bɛ
       PRON. 3SG. HUM.   PRON. 3SG. HUM.   come

       'Anyway, I can't persuade him to come.'


(367)  dɔfrɛ       k3m            panɛ        dəkɔ                    kɔ
       god (SG.)   NON-SPEC. REL.   give + PAST   DISJ. PRON. 3SG. HUM.   in any case

       də                  zɔmm3
       PRON. 3SG. HUM.   want + DUR.

       'He wanted only what God had given him.'


(368)  gʊ                    jãŋ      məkɔ                    nɛ               kɔ
       PRON. 3SG. NON-HUM.   appear   DISJ. PRON. 1SG.   to (POSTPOS.)   in any case

       ke           sã          də                  bɛllaa
       that (CONJ.)   tomorrow   PRON. 3SG. HUM.   come + PROG.

       'It seems to me, at least, that he will come back tomorrow.'


(369)  ke             dõĩ                 kɔ            gʊ                    handa
       because (CONJ.)   last year (ADV.)   in any case   PRON. 3SG. NON-HUM.   really

       kãŋsɛ
       help

       'Because **last year** it really helped.'[58]

(370)  tıgɛ        kemde              kɔ              — mə         na    dı
      be + PAST  (*proper name*)  in any case  — PRON. 1SG.  see   PRON. 3SG. HUM.

      dɛ̃ɛ̃
      yesterday

      'As for Kemde, I saw him yesterday.'

### 1.12.1.2 Movement without dislocation

Movement without dislocation does not occur. Only subject NPs happen to be in topic position without dislocation, since their normal position is clause initial (if there is no adverb or moved constituent which can precede it). Therefore §1.12.1.2.1–3 are omitted.

### 1.12.1.3 Dislocation

### 1.12.1.3.1 Dislocation to initial position

The normal, and frequently used, method of stating the topic of a sentence is to place it in initial position (i.e. also before any emphasized constituent which may also have been moved to initial position). The topic is followed by a pause, or has a pause-like intonation.

### 1.12.1.3.2 Dislocation to final position

Dislocation to final position does not occur.

### 1.12.1.3.3 Dislocation to other positions

Dislocation to other positions does not occur.

### 1.12.1.4 Verb agreement

Verb agreement does not exist.

### 1.12.1.5 Other means

There are no other means of indicating the topic of a sentence.

### 1.12.1.6 Combinations of the above

No combinations are possible, since dislocation to initial position is the only means available for indicating the topic of a sentence.

## 1.12.2 Elements which can be topicalized

Any noun phrase, whether related to an NP within the body of the sentence or not, can be the topic[59] of a sentence. Adverbials, including pre-/postpositional phrases, can also be in position, but I do not consider them to be topicalized.

Topicalization of one constituent is compatible with emphasis of another constituent; the topic constituent always precedes the emphasized constituent. For details, see §1.11.2.1.6.1 above. An emphasized constituent cannot be the topic.

When a wh-question with a left-dislocated wh-word has a topic, the topic comes first.

### 1.12.2.1.1 Noun phrases

Only noun phrases can be topicalized. Examples are given in §1.12.2.2.1 below. Only the highest-level NP of a complex NP can be topicalized; embedded NPs cannot.

### 1.12.2.1.2 Adjective

No adjective, whether nominal or verbal, can be the topic of the sentence on its own. For nominal adjectives, the whole NP or PP in which it is contained must be the topic.

### 1.12.2.1.3 Verbs

The finite verb can never be the topic of a sentence. A noun phrase containing a GERUND or ACTION NOUN can be a topic only because it is a noun phrase, as exemplified in (371)–(372).

(371)  a        dãŋ              lebʌm                      a       zɔrɛ    la
       ART.   house + SG.   build + GERUND   ART.   easy   COPULA

       'It's easy to build a house.'


(372)  a        dãŋ              lebʌm                      gʊ                               dɛɪ
       ART.   house + SG.   build + GERUND   PRON. 3SG. NON-HUM   can

       'It's possible to build a house.'


### 1.12.2.1.4 Adverbial

Adverbials of all types normally occur clause-finally, but can optionally occur clause-initially. This means that if one of them were the topic of a

sentence, it could not easily be recognized as such, as can be seen in (373)–(374).[60] Normally, there is no pause intonation after the adverbial, and therefore on balance I consider them not to be topics.

(373)  sã          mə          jakaa        tubre
       tomorrow   PRON. 1SG.  go + PROG.  in(to) the bush (ADV.)

       'I will leave for the bush tomorrow.'


(374)  bʌdin(i)        ne                  mə          bɛnɛ        la
       (*proper name*)  for (POSTPOS.)     PRON. 1SG.  come + PAST  with (PREP.)

       (a)            hem
       ART. (*elided*)  water (SG.)

       'I brought some water **for Badini**.' (*'come with' = 'bring'*)


### 1.12.2.2.1 Constituents of main clauses

When a constituent of a main clause is topicalized, the position which it would occupy in the non-topicalized version of the sentence is always occupied by a pronoun. In (375) the pronoun *də* refers to the topic NP *kemde*, in (376) and (377) *gʊ* refers to the topic *a dãŋ koŋ* 'the house'.

(375)  kemde           —  də                  bɛ
       (*proper name*)  —  PRON. 3SG. HUM.     come

       '(As for) Kemde, he came.'


(376)  a      dãŋ              koŋ                    —  kemde           lebə
       ART.   house + SG.      DET. NON-HUM. SG.     —  (*proper name*)  build

       gʊ
       PRON. 3SG. NON-HUM.

       '(As for) the house, it was built by Kemde.'


(377)  a      dãŋ              koŋ                    —  kemde           la      lebə
       ART.   house + SG.      DET. NON-HUM. SG.     —  (*proper name*)  EMPH.   build

       gʊ
       PRON. 3SG. NON-HUM.

       '(As for) the house, **Kemde** built it.'

Example (378) shows the relative order 'topic NP — wh-word' in questions, and also the topicalization of a subject NP with a pronoun copy.

(378)  a       bara           hoŋ              ndeendɪ              də
       ART.    husband + SG.  DET. HUM. SG.    which + HUM. SG.     PRON. 3SG. HUM.

       boŋ    də               kɛ̃
       love   PRON. 3SG. HUM.  surpass

   'That husband — which one (of his wives) did he love most?' *(Lit.:* 'That husband — which did he love she surpasses.'*)*

### 1.12.2.2.2 Constituent of subordinate clauses

Any NP or adverbial from a subordinate clause can be the topic of a sentence; a pronoun copy must be present in the subordinate clause position of an NP. Examples are given in (379)–(380).

(379)  la    a      sɔbɔ          mana              maa              ni   kɔ̃n
       and   ART.   hunter + SG.  such-and-such     NEG. PRON. 1SG.  see  NON-SPEC.

       də                tɪkə        la    də                zu     jereŋa
       PRON. 3SG. HUM.   do + DUR.   and   PRON. 3SG. HUM.   enter  here

   'But as for hunter such-and-such — I don't see what he could do to enter this place.'

(380)  a      jɔ           a      fɪllɔ               gʊ                     handa
       ART.   chief + SG.  ART.   end of year (SG.)   PRON. 3SG. NON-HUM.    really

       bole        ke            ba                hɛ̃m    gʊ
       say + PAST  that (CONJ.)  PRON. 3PL. HUM.   meet   PRON. 3SG. NON-HUM.

       la
       EMPH.

   'Chief! (As for) the end of the year, it is really said that they met **it**.'[61]

### 1.12.2.2.3 Constituents of noun phrases

Only full noun phrases (whether embedded in larger constituents or not) can be topicalized; none of their internal constituents can be topicalized. Also, the first NP of a compound noun phrase (NP+N) cannot be topicalized.

### 1.12.2.2.4 Constituents of coordinate constructions

No NP from inside a coordinated NP or other coordinated structure can be topicalized.

*1.12.2.2.5 More than one constituent simultaneously*

Since topic NPs are left-dislocated, it is virtually a matter of opinion whether one considers the sequence 'NP — pause — NP — pause — sentence' to involve a single sentence with two topics or an elliptical first sentence followed by a full second sentence.

*1.12.2.3 Marking of the site from which movement of the topicalized NP occurs*

*1.12.2.3.1 Marking with a copy of the topicalized element*

This happens only accidentally if the topicalized element happens to be a pronoun.

*1.12.2.3.2 Marking with a pro-form of the topicalized element*

Normally the site from which the topicalized element was moved is marked with the corresponding personal pronoun (usually the clitic form, but optionally the disjunctive form).

*1.12.2.3.3 Marking with a particle*

Marking with a particle does not occur.

*1.12.2.3.4 No marking*

If the topicalized NP originated as a constituent of the sentence, then its source position must be marked with a pronoun. However, if the problem cases in §1.11.2.2.1.1, examples (333)–(336) above, are analysed as topicalization rather than emphasis, then no marking of the source position of the moved NP occurs.

**1.12.3 Frequency of occurrence**

Topicalization is never obligatory, but optionally always possible for any single NP of a sentence. It is a quite common phenomenon.

## 1.13 Heavy Shift

Heavy structures are not moved anywhere; if anything they are avoided, e.g. by stating a heavy NP as the (left-dislocated) topic of a sentence and then using a pronoun within the body of the sentence. Thus, if it occurs at all, heavy shift is expressed in Koromfe by the same means as topicalization.

One movement process which may be related to heavy shift, although the 'heaviness' involved is quite low, is the almost optional inversion of the sequence 'NP — CONJUNCTION' or 'NP — RELATIVE' with *kɔN* when a full NP is involved, but its optionality with a disjunctive pronoun and almost total failure with clitic pronouns. This is described in §1.1.2.3.5 and §1.1.2.4.2.1 above.

Otherwise, there is nothing resembling heavy shift in Koromfe and sections §1.13.1–5 are omitted.

## 1.14 Other movement processes

There are no other movement processes.

## 1.15 Minor sentence-types

There are no minor sentence types.

## 1.16 Operational definitions for word classes

There are no real operational **definitions** (i.e. sufficient and necessary conditions) for any word class in Koromfe; the following sub-sections contain only operational characterizations (i.e. conditions which are either sufficient or necessary, but not both).

### 1.16.1 Nouns

Anything preceded by the article *a* is a noun. The noun class suffixes are good indicators of nounhood. A proclitic pronoun indicates that the following word must be a noun or a verb (including nominal and verbal adjectives).

### 1.16.2 Pronouns

Normal (clitic) pronouns are always monosyllabic (CV or 'syllabic' nasal). Disjunctive pronouns always have two syllables, of which the first is CV or a 'syllabic' nasal and the second is *kɔ*.

### 1.16.3 Verbs

Anything which has a postclitic pronoun is a verb. Some of the inflectional suffixes are good indicators of verbhood. A proclitic pronoun indicates that the following word must be a noun or a verb (including nominal and verbal adjectives).

### 1.16.4 Adjectives

Adjectives pattern either with nouns or with verbs. There are no general operational characterizations of either type of adjective.

### 1.16.5 Pre-/postpositions

The simple prepositions and postpositions are phonetically monosyllabic.

### 1.16.6 Numerals and quantifiers

Numerals from 2 to 9 when used for counting have a noun class prefix *ı-*.

### 1.16.7 Others

There are no others.

# Notes to Chapter 1

1   Here and throughout this grammar vowels in parentheses were elided phonetically at normal speech tempo, but 'reappeared' in slower or more careful speech.

2   No distinction is made in Koromfe between these two types of excretion.

3   Whether the emphatic particle *la* should be attached to the subject NP (as here) or directly to the S node is not at issue here; note, however, that *la* cannot occur inside an NP+N complex NP, which indicates that perhaps attachment to S is the correct analysis.

4   Here the *N* stands for either a) a homorganic nasal stop before an obstruent, or b) zero before a glide (j,w,h), or c) [n], [nə] or even [nɔ̃] before a nasal stop.

5   The gloss 'arrive' is used instead of more literal 'come' throughout this grammar for consistency with English usage.

6   Although morphologically a plural form, this word is usually used to denote one kind/species out of a set.

7   Unfortunately, my corpus contains no usable example sentences for the other inflectional forms of the question word 'which' when used adjectivally, namely *ndeendɪ* (HUM. SG.), *ndeemba* (HUM. PL.), *ndeehɛ̃* (NON-HUM. PL.) and *ndeeŋga* (DIMIN. SG.)

8   Phonologically, /gʊ/ is merged with the following article /a/ and comes out as phonetic /gɔ/. This is a completely regular phonological process of the language — cf. §3.4.3.2.2.

9   In other contexts, this phrase seems to be lexicalized to a high degree, and often behaves like an adverb meaning 'maybe'. Cf. also its use as an answer meaning 'maybe' in §1.1.1.2.4.2.1.1 above.

10  The wider context of this sentence is that the master of ceremonies at an animistic sacrificial ceremony is apologizing to the ancestors for the fact that his fellow villagers have not made any preparations for the ceremony; he has done everything himself.

11  Here the 2nd singular pronoun occurs in its special anaphoric usage for a repeated 3rd person subject — cf. §1.5.2.2 below.

12  As mentioned in §1.1.2.4.2.1 below, I think that topicalized structures like (123) are the historical source of the inversion of *kɔ̃N* and a full NP (but not a non-disjunctive pronoun like *də*).

13  The name PRESENT or PRESENT/FUTURE tense, which I used in previous publications to designate the PROGRESSIVE aspect, is therefore in fact a misnomer; I beg the reader's indulgence for the terminological incompatibility with my Koromfe dictionary and texts (Rennison 1987a,b).

14  This verb has only PROGRESSIVE and DURATIVE forms (*fɛ̃faa* and *fɛ̃fʊ* respectively) — probably because its use is restricted to such (durative) aspectual contexts.

15  This clause may be elliptical, with *də da* 'he gain' understood before *də gɪllɛ*. Otherwise, as it stands, it looks more like an adverb clause of cause.

16  This word is a compound of *bara* 'husband' and *kɛ̃ɔ* 'woman, wife'.

17  The wider context is: This sentence is spoken by one of three wives of a 'dead' man in reply to the statement by a 'spirit of the bush' that he can revive the dead

husband if no animal has touched him. Another of the three wives had stayed be-
hind to fend off wild animals.

The pronoun object *dı* of *dugə* 'leave' is ambiguous — it could refer to the hus-
band or to the co-wife.

18 I have found at least one case in my texts where an unreal condition is used where
a real condition would be expected; nevertheless, my informants all had the clear
intuition that 'probability of fulfilment' is the right distinction.

19 The subject of the original sentence has been shortened here for easier presenta-
tion. The full original sentence can be found in §1.5.2.1 below.

20 Note that the difference in vowel quality between *mə* in (161) and *mɛ* in (162) is a
completely automatic phonological matter: in utterance-initial position *mə* is
obligatory, while in utterance-final position *mɛ* is obligatory.

21 Such a structure is, of course, only possible when it is the second NP which is
topicalized.

22 Emphatic structures (i.e. NP$_{TOP}$ NP COPULA) seem to be preferred for such past
copular sentences.

23 In fact, the words *tı* and *a* were phonetically merged to *tɛ* by a quite general pho-
nological assimilation process.

24 The gloss 'lose', rather than 'lost' for the word *tam* in this and several further
examples below is intended to show that this is a plain uninflected verb stem that is
used participially (here with a passive meaning), as described in §1.3.1.5.1 and
§2.1.4.3.1.1 below.

25 This usage of the phrase *selle la* is the only possible one. If *la* were a copula, it
could not be used with an adverb of place (where *wɛ̃* is required).

26 As my informant Souleymane points out: This is a correct sentence, but it's hard to
know who's doing what.

27 The reference of the possessive adjective is ambiguous in this and the next exam-
ple.

28 The word *mɔ̃* 'also' frequently occurs pre-verbally, but on closer inspection its
occurrence seems rather to be restricted to the post-nominal or post-NP position, as
shown by *də soŋ a jemdi mɔ̃ bi*, 'he took the hippopotamus's child, too', where *mɔ̃*
'also' is suffixed to *jemdi* 'hippopotamus' **inside** the compound *a jemdi bi* 'the
hippopotamus's child'. I therefore analyse pre-verbal *mɔ̃* as a suffix on the subject
NP.

29 Here I ignore the case of multiple temporal adverbial clauses introduced alternately
with *kɔ̃* and *hal*.

30 The term 'possessive' is probably one of the most misleading in linguistics; I have
kept it here only for the sake of compatibility with traditional terminology.

31 This prefix in Mòoré probably is not (and perhaps never was) an article like that of
Koromfe.

32 The long form of the DIMINUTIVE (of which only a short SINGULAR but no PLURAL
form exists) is missing in my corpus.

33 In one of my Koromfe texts the NP *a baŋsə naŋsa* 'those spears' occurs (with an
initial article), but when asked directly, my informants always cited forms without
article.

34 The (first) *baa* of this structure is stressed, has a high tone, and is phonetically
long. One might be tempted to analyse this word as two words, *ba a*, where the

second is the article; however, the fact that numerals prohibit the article *a* in positive sentences speaks against this analysis. So although it would be appealing to have the same NEGATIVE PARTICLE *ba* for both NPs and verbs, I think that on balance *baa* really is a distinct word with a long vowel.

35 This NP occurs as an independent sentence in one of my Koromfe texts (a fable), and describes the soup which rabbit('s wife) made of the hippopotamus's child.

36 Remember, however, that relative clauses with the unspecified relative *kɔN* (which can *par excellence* modify a noun phrase) often have the same structure as temporal adverb clauses and may be indistinguishable from them.

37 In contrast with all other examples in the sections, I had to construct this NP artificially because my informants invariably split such a complex NP into a 'set-subset' structure.

38 To a Koromfe speaker it is clear that these cooking activities will not be done by the chief personally, but by one or more of his wives. However, this fact can have no bearing on the behaviour of the pronouns.

39 The examples given in this and the following sections refer to the non-disjunctive variant of the 'reflexive pronoun' only. I have found no sentence with a non-disjunctive pronoun which does not also permit a disjunctive version, and vice versa.

40 This sentence contains a 'special anaphoric' use of the 2nd person singular pronoun for the repeated 3rd person singular subject. See §1.5.2.2 above.

41 I use the term 'possession' here under protest, because the linguistic category has nothing to do with ownership, and have kept the term for compatibility with the Lingua Questionnaire and because everyone knows what we are **really** talking about.

42 I would love to know what whiteness of the stomach (or whiteness of character) has to do with generosity, but none of my informants could explain this compound.

43 In compounds, the lexical long vowel of *saa* is shortened; when used in isolation it remains long.

44 This is a typical beginning for a story. All 6 real stories in my collection of texts have emphasis in the first sentence; either sentence emphasis with *ja* or NP emphasis with *la*.

45 This sentence occurs at a very important point in a story: a wise old man asks the spirit of the bush to stand up so that he can speak to him (and eventually verbally defeat him). The two *ja* here therefore on the one hand emphasize the clauses in which they are contained, and on the other hand are attention grabbers for the following passage.

In case the impression might have arisen that the position of *ja* is post-verbal (like *la* and *dɔ* described below), consider *mə latə dı ja* 'I was searching for him', where the direct object *dı* intervenes between the verb and *ja*.

46 Only in one single sentence of my texts did I find an emphatic particle dangling at the end of a clause, namely in *gʋ handa bole ke ba hɛ̃m gʋ la* 'it was really said that they met it — *la*'. However, my informants found this usage strange, and never produced anything similar themselves.

47 The situation here is that the hippopotamus and the elephant are having a tug-of-war, the former in the water and the latter on land. When the hippopotamus succeeds in pulling the elephant into the water, the sentence is emphasized.

48    The presence of the NON-HUMAN rather than the HUMAN form of the determiner (which must modify the relative clause introduced by *kɔ̃N*) here and in (328) below may be due to the fact that I told my informant (Souleymane) to imagine that we heard someone arrive and didn't know who it was.

49    Here the DETERMINER *koŋ* modifies the adverb *dɛ̃ɛ̃* (cf. §1.2.5.2.5.1).

50    My guess is that the EMPHATIC particles originated in this usage of the COPULAS, but unfortunately I know of no evidence in Koromfe which would support that guess directly.

51    My informants consistently refused to accept analogous structures; they wanted to restore the missing *la*.

52    This seems to be due to the scope of the adjective, which is restricted here, but open in sentence-initial position.

53    Here I have deliberately excluded sentences using *ke* to introduce quoted speech because it is not unusual to switch from direct to indirect speech or vice versa even in the middle of a clause. However, the emphatic structures described here do occur (frequently!) in quoted speech.

54    The phrase *a mɛrgu la wɔ̃fə X* is the normal way of saying 'X has a cold' in Koromfe.

55    The *ke*-clause in (361) is indirect speech which in the text has no main clause to introduce it. This clause is used as a question ('Was it you who...?').

56    It seems that the adverb clauses of cause have a kind of 'colon effect' similar to that which is observable in quoted speech. The clause which follows the introductory conjunction *ke* can have the structure of any normal main clause.

57    If *tigɛ kemde* is a clause, then either it is subjectless (i.e. we would expect *gʊ tigɛ kemde*, parallel to *gaa tigɛ X* or *gaa tigɛ X nɛ* 'if it weren't for X'), or it involves inversion of subject-NP and verb. However, it seems that despite their quite transparent structure, these are fixed phrases relating to NPs only, and therefore not relevant to sentence structure.

58    This sentence, although introduced by *ke*, functions more as a main than a subordinate clause in the text within which it is situated. The context is that the master of ceremonies is justifying why a sacrifice for a good new agricultural year should be made, and here says that the past year (which has just finished) was a good one (and so the sacrifice worked).

59    The term 'topicalization' implies that some constituent of a sentence becomes the topic. However, sometimes it seems that an NP or adverbial is simply stated as the topic to which the following sentence refers, without being a constituent of that sentence.

60    Unfortunately there seems to be a 'conspiracy' against the cooccurrence of a sentence-initial adverbial and an emphasized constituent (which, if my analysis is correct, ought to precede the adverbial).

61    This sentence refers to a quarrel between the chief and the religious head of the village as to whether the official end of the harvest year had arrived. It is spoken by the latter to the former. The position of the final emphatic particle *la* in this sentence is unusual; it seems to go with the verb *hɛ̃m*, but allows the object pronoun *gʊ* to intervene. This is the only such usage in my corpus; it is reminiscent of the behaviour of Mòoré *lame*.

# 2 Morphology

Koromfe has a relatively simple inflectional and derivational morphology. The compositional word-formation is also fairly simple. Appositive and genitival N+N constructions are morphologically compositional (i.e. they involve word-internal rather than word-external operations) when the first noun has no class suffix; NP+N constructions, on the other hand, are syntactic.

Typologically, the morphology of Koromfe is mainly inflectional (though with the above-mentioned caveat that it is very simple), and partly fusional (cf. the coalescence of stem-final and suffix-initial consonants dealt with in §3.4.3.1 below).

## 2.1 Inflection

### 2.1.1 Nouns

A preliminary note: Koromfe has only one type of noun inflection, which is the system of noun classes. A noun class suffix expresses number and in addition (sometimes) other semantic characteristics of the noun, like humanness, diminutive, mass/liquid, etc. See §2.1.1.9.2 below for details.

*2.1.1.1 Means for expressing syntactic and semantic functions of noun phrases*

*2.1.1.1.1 Bound affixes*

There exist class suffixes on nouns and nominal adjectives, which also (i.e. besides class membership) express number and, to a certain extent, other semantic properties. The class affixes also occur marginally as prefixes, indicating that their present suffixal status is no barrier to their being historically related to the class prefixes of the Bantu languages.

*2.1.1.1.2 Morphophonemic alternations alone (internal change)*

Morphophonemic alternations in the sense of internal change are not utilized systematically in Koromfe. Morpheme-internal changes only occur in a handful of words such as *wɔ̃ndɛ*, PL. *wãna* 'hand, arm' or *wolle*, PL. *wala* 'foot, leg', and seem to be the result of (irregular) assimilation of a stem vowel to a suffix vowel (plus the loss of ATR in *wala*). Disregarding this

anomaly of vowel quality, these words are inflectionally quite normal members of the *dɛ/a* noun class.

### 2.1.1.1.3 Clitic particles

Clitic particles do not occur.

### 2.1.1.1.4 Pre-/postpositions

Both prepositions and postpositions occur. See §2.1.5.1 below for a summary.

### 2.1.1.1.5 Word order

Word order is used to distinguish the NP arguments of the verb; in a simple non-emphasized sentence the subject NP precedes the verb (sole exception: 2nd person plural imperatives) and the object NPs (direct and indirect) follow the verb in the order described in §1.2.1.2.3 above.

### 2.1.1.1.6 Derivational processes

Compound NPs, with the structure NP+N, and compound nouns (N+N) are both used to express the genitive (cf. §2.3.1.1 below).

### 2.1.1.1.7 Other means

There are no other means for expressing syntactic and semantic functions of noun phrases.

### 2.1.1.1.8 Combinations of the above

The means described above are quite independent of one another, just as the syntactic and semantic functions which they express are largely in complementary distribution.

The class suffixes of both nouns are present in NP+N compounds, but only the class suffix of the second noun is present in N+N compounds (see §2.3.1.1 below). However, this still means that the parent NP of such a compound has a class suffix. Otherwise, noun class suffixes are almost always present in an NP, and occur independently of prepositions, postpositions, word order and derivation.

*2.1.1.2 The expression of syntactic functions in finite clauses*

*2.1.1.2.1 Subject of an intransitive verb*

The subject NP is positioned before the verb. There is no morphological inflection. Some of the proclitic subject pronouns have a phonologically weaker vowel than the postclitic object pronouns, but this is a purely phonological matter and never distinctive (and therefore never inflectional).

There is no distinction of 'agent', therefore §2.1.1.2.1.1–2 are omitted.

*2.1.1.2.2 Subject of transitive verb*

There is no difference between the subject of a transitive verb and that of an intransitive verb. See §2.1.1.2.1 above. There is no distinction of 'agent', therefore §2.1.1.2.2.1–2 are omitted.

*2.1.1.2.3 Subject of copular construction*

There is normally no difference between the subject of a copular construction and that of an intransitive verb (see §2.1.1.2.1 above), with the exception of the copulas described in the next paragraph. With the copulas *la* (positive) or *dɔ* (negative), the relative order of the subject and complement is quite free when the subject is a personal pronoun, provided that one of them precedes and the other follows the copula. My informants claimed that (381) and (382) are equivalent.

(381)  mə          la        (a)            jɔ
       PRON. 1SG.   COPULA    ART. (*elided*)  chief + SG.

       'I am the chief.'

(382)  a              jɔ              la        mɛ
       ART. (*elided*)  chief + SG.     COPULA    PRON. 1SG.

       'I am the chief.' *(Lit.:* 'The chief is me.'*)*

*2.1.1.2.4 Direct object*

The direct object NP is positioned after the verb, and has no morphological inflection. On the relative order of direct and indirect object NPs, see §1.2.1.2.3 above.

It makes no difference whether the subject is expressed as a free or bound element, or unexpressed. Therefore §2.1.1.2.4.1–3 are omitted.

## 2.1.1.2.5 Indirect object

The indirect object NP is positioned after the verb, and has no morphological inflection. On the relative order of direct and indirect object NPs, see §1.2.1.2.3 above.

The following categories do not exist in Koromfe and are therefore not expressed by any means: §2.1.1.2.6 object of comparison, §2.1.1.2.7 object of equation, §2.1.1.2.8 other objects governed by verbs.

## 2.1.1.2.9 Complement of a copular construction

The complement of a copular construction is not marked in any special way. It normally follows the copula, but can optionally precede the copulas *la* (positive) or *dɔ* (negative) — see §2.1.1.2.3 above. No distinction is made between copular complements which express a definition, identity, rôle or copular complements of other verbs — therefore §2.1.1.2.9.1–4 are inapplicable.

The categories subject-complement, object-complement, object governed by an adjective, agent in passive/pseudopassive/impersonal constructions do not exist, therefore §2.1.1.2.10–13 are inapplicable.

## 2.1.1.2.14 Topic NP

The topic is not marked morphologically, but the topic NP is left-dislocated (cf. §1.12 above).

## 2.1.1.2.15 Emphasized NP

The emphasized NP is followed by the emphatic particle *la* (positive) or *dɔ* (negative) and moved to clause-initial position. No (other) morphological marking occurs (cf. §1.11 above).

## 2.1.1.3 The expression of syntactic functions in non-finite clauses

The only non-finite clauses which occur involve gerunds / action nouns as the noun of a genitival NP+N compound NP (described in §2.3.1.1.3 below).

The only syntactic functions which can be expressed in the NP of such an NP+GERUND structure is that of the direct object, as in (383). Therefore

the other syntactic functions covered in the sub-sections of §2.1.1.2 for finite clauses do not occur in non-finite clauses.

(383)  a    dãŋ         lebʌm         ba    kaŋna
       ART.  house + SG.  build + GERUND  NEG.  be hard

'It isn't hard to build a house.'

Absolute constructions (§2.1.1.3.1) do not occur and the infinitive (§2.1.1.3.2) is expressed by the gerund (described in the previous paragraph). The deverbal action noun (§2.1.1.3.4) is categorially equivalent to, though formally distinct from, the gerund. Therefore §2.1.1.3.1–2 and §2.1.1.3.4 are omitted.

*2.1.1.3.3 Gerund and deverbal action noun*

See §2.1.1.3.

*2.1.1.4 The expression of non-local semantic functions*

*2.1.1.4.1 Benefactive*

The benefactive is expressed by the postposition *nɛ* (with phonological variants *ne, nɪ* and *ni*), e.g. the question-answer pair in (384)–(385).

(384)  ala        nɪ              ŋ           kone       (a)        dɪo
       who (QU.)  for (POSTPOS.)  PRON. 2SG.  put + PAST  ART. (*elided*)  food

       koŋ
       DET. NON-HUM. SG.

       'Who did you put the food for?'

(385)  a    luko        koŋ               ne              la
       ART.  cat + SG.   DET. NON-HUM. SG.  for (POSTPOS.)  EMPH.

       'For **the cat**.'

*2.1.1.4.2 Source*

The category of 'source' does not exist in its own right. Normally a genitive compound is used, e.g. (386). This lack is particularly noticeable with the verbs of motion, where it is not possible to express the local notion 'from'; instead a transitive verb of leaving must be used (cf. §2.1.1.5 below).

(386)  a    pes(u)        lambʊ
       art.  sheep + SG.   cotton (SG.)

       'wool from a sheep'

### 2.1.1.4.3 Instrumental

Instrumental is expressed by the preposition *la* which also expresses the comitative. An example is given in (387).

(387)  mə          dɔm  a     debre          la           a     dãĩnɛ
       PRON. 1SG.   hit  ART.  tamtam + SG.   with (PREP.)  ART.  wood + SG.

       'I hit the tamtam with a stick.'

### 2.1.1.4.3a Negative instrumental

This category does not exist in its own right. Like other negative categories, it can be paraphrased by adding a second clause which consists of the positive equivalent (here: 'with a stick', as exemplified in (387) above) plus the negative emphatic particle *dɔ*, as shown in (388).

(388)  mə          dɔm  a     debre          la        la            (a)
       PRON. 1SG.   hit  ART.  tamtam + SG.   and/but   with (PREP.)  ART. (*elided*)

       dãĩnɛ       dɔ
       wood + SG.  NEG. EMPH.

       'I hit the tamtam without a stick.' *(Lit.* 'I hit the tamtam, but not with a stick.'*)*

### 2.1.1.4.4 Comitative

Like the instrumental, the comitative is expressed by the preposition *la*. An example is given in (389).

(389)  mə          jaʊ  la            bʌdini
       PRON. 1SG.   go   with (PREP.)  (*proper name*)

       'I left with Badini.'

### 2.1.1.4.4a Negative comitative

The negative comitative paraphrase with *dɔ* which corresponds to (389) is given in (390).

(390)  mə          jaʊ  la   la            bʌdin          dɔ
       PRON. 1SG.   go   but  with (PREP.)  (*proper name*)  NEG. EMPH.

       'I left without Badini.' *(Lit.:* 'I left, but not with Badini.'*)*

## 2.1.1.4.5 Circumstance

A typical means of expressing circumstance in Koromfe is 'possession' with the noun *saa* 'owner', as shown in (391). The (double) compound noun *wãna zɪgam sa* 'hand-dirt owner' is used as an adjective modifying *bɔrɔ*, and comprises the compound noun *wãna zɪgam* 'dirt on the hands' (or simply 'dirty hands') and *saa* 'owner, owning'.

(391) mə        na    a      bɔrɔ        a      wãna        zɪgam        sa
      PRON. 1SG.  see   ART.   man + SG.   ART.   hand + PL.  dirt (SG.)   owner + SG.

'I saw a man with dirty hands.' *(Lit.:* 'I saw a "hand-dirt owning" man.*')*

## 2.1.1.4.5a Negative circumstance

As seen above with other negative categories, negative circumstance is usually expressed (if at all) by means of *dɔ*, as shown in (392). Alternative structures are (393), where the negative verb *ŋgo* 'not be, not have' is used, or the more far-reaching paraphrase in (394).

(392) mə        na    a      bɔrɔ        la         a      wãna        zɪgam
      PRON. 1SG.  see   ART.   man + SG.   and/but    ART.   hand + PL.  dirt (SG.)

      sa           dɔ
      owner + SG.   NEG. EMPH.

'I saw a man without dirty hands.' *(Lit.:* 'I saw a man but not "hand-dirt own-ing".*')*

(393) mə        na    a      bɔrɔ        la     də              wãna
      PRON. 1SG.  see   ART.   man + SG.   and    PRON. 3SG. HUM.   hand + PL.

      ŋgo              (a)              zɪgam
      not be/have   ART. *(elided)*   dirt (SG.)

'I saw a man without dirty hands.' *(Lit.:* 'I saw a man and his hands lacked dirt.*')*

(394) mə        na    a      bɔrɔ        a      wãna        hãnɪa       sa
      PRON. 1SG.  see   ART.   man + SG.   ART.   hand + PL.  good + PL.  owner + SG.

'I saw a man without dirty hands.' *(Lit.:* 'I saw a "good hand owning" man.*')*

## 2.1.1.4.6 Possessive

There are no different types of possessive, and therefore §2.1.1.4.6.1–3 are inapplicable. Possession is most frequently indicated by the NP+N syntactic compound structure (cf. §2.3.1.1.3 below), where NP is the possessor and N the possessed, as shown in (395). Here NP is *mə jɔ̃ɔ̃ndɔ* 'my brother' and N is *dãŋ* 'house'. The less frequent (and possi-

bly lexicalized) structure is an N+N compound noun, where the first noun has no class suffix (cf. §2.3.1.1.1 below). An example is given in (396).

(395)  mə        jɔ̃ɔ̃ndɔ              dãŋ
       PRON. 1SG.  elder sibling + SG.   house + SG.

       'my brother's house'

(396)  də                bɪn                dɛɪlɛɪ
       PRON. 3SG. HUM.   heart (BARE STEM)   ability; control (SG.)

       'his patience' *(lit.:* 'his heart-control'*)*

## 2.1.1.4.7 Possessed

A 'possessed' noun is normally the second member of an NP+N compound NP or an N+N compound noun, as described in the previous section. It has no special marking.

## 2.1.1.4.7.1 Alienable and inalienable possessedness

There is no such distinction among possessed nouns (described in §2.1.1.4.7 above).

## 2.1.1.4.8 Quality

Quality can be expressed either with a compound whose second member is *saa* 'owner, owning', shown in (397), or with the comitative preposition *la*, shown in (398). The expression for 'generosity', *fɔr(ʊ) põnəmɛ̃ɛ̃* is itself a compound meaning 'whiteness of the stomach'; since the class suffix *-ʊ* would be elided, it is impossible to determine whether this word is an N+N or NP+N compound.

(397)  a     bɔrɔ          fɔr(ʊ)        põnəmɛ̃ɛ̃          sa
       ART.  man + SG.     belly + SG.   whiteness (SG.)   owner + SG.

       'a man of generosity' *(lit.:* 'a "belly-whiteness owning" man'*)*

(398)  a     bɔrɔ         la            a     fɔr(ʊ)       põnəmɛ̃ɛ̃
       ART.  man + SG.    with (PREP.)  ART.  belly + SG.  whiteness (SG.)

       'a man of generosity' *(lit.:* 'a man with belly-whiteness'*)*

## 2.1.1.4.8a Negative quality

Negative quality can be expressed with the negative emphatic particle *dɔ*, as in (399), or with the negative copular verb *ŋgo* 'not be/have', shown in

(400). However, as with many of the noun-noun relations described here, my informants preferred to decrease 'nouniness' and increase 'clausiness' as shown in (401), where *pɔ̃nəmã* is a verbal adjective 'to be white'.[1]

(399)  mə        na   a     bɔrɔ     la   a    fɔr(ʊ)     pɔ̃nəmɛ̃ɛ̃
        PRON. 1SG.  see  ART.  man + SG.  and  ART.  belly + SG.  whiteness (SG.)

        sa         dɔ
        owner + SG.  NEG. EMPH.

        'I saw a man without generosity.' *(Lit.:* 'I saw a man, but not a "belly-whiteness owner".'*)*

(400)  mə        na   a     bɔrɔ     la   də           ŋgo
        PRON. 1SG.  see  ART.  man + SG.  and  PRON. 3SG. HUM.  not be/have

        (a)         fɔr(ʊ)     pɔ̃nəmɛ̃ɛ̃
        ART. *(elided)*  belly + SG.  whiteness (SG.)

        'I saw a man without generosity.'

(401)  mə        na   a     bɔrɔ     la   də           fɔr(ʊ)     ba
        PRON. 1SG.  see  ART.  man + SG.  and  PRON. 3SG. HUM.  belly + SG.  NEG.

        pɔ̃nəmã
        be white + PROG.

        'I saw a man without generosity.' *(Lit.:* 'I saw a man, but his belly was not white.'*)*

### 2.1.1.4.8b Reference quality

Reference quality can only be expressed by means of a genitival NP+N compound NP, as shown in (402).

(402)  a     bɔrɔ     duboi
        ART.  man + SG.  honour

        'the honour of the man'

### 2.1.1.4.9 Quantity

Quantity is expressed as the NP of a genitival NP+N compound NP, as shown in (403). Note that there is no article *a* before *tɔ̃nəma* 'tons' because the cardinal numeral *fi* 'ten' precludes the use of the article with the noun which it modifies and *kamɪɔ̃* is a bare noun.

(403)    tõnəma    fɪ    kamɪ̃
           ton + PL.    ten   lorry (SG.)
           'a lorry of 10 tons'[2]

### 2.1.1.4.9a Reference quantity

Reference quantity is expressed as the N of a genitival NP+N compound NP, as shown in (404).

(404)    a    ɟãna        varam     kilo
           ART.  millet + PL.  flour (SG.)   kilogram/kilometre (SG.)
           'a kilogram of millet flour'

### 2.1.1.4.10 Material

Material is expressed, if it has to be, as the NP of a genitive (NP+N) compound, as shown in (405)–(406). In (405) *bɔndʋ* 'zero, nothing' is used as an adjective modifying *ɟɔ̃ɔ̃* 'mud' and meaning 'plain, simple, worthless'.

(405)    a    ɟɔ̃ɔ̃        bɔnd(ʋ)  dãŋ
           ART.  mud (SG.)  zero     house + SG.
           'a house of mud ("banco")'

(406)    a    geŋʌ      dãŋ
           ART.  stone + PL.  house + SG.
           'a house of stone' *(lit.:* 'a house of stones'*)*

But here again, a main clause such as (407)–(408) or even a relative clause is the preferred construction. In such a clause, the material is expressed by the preposition *la*, which also expresses instrumental and comitative.

(407)    dãŋ        naŋsa    lebe       la         (a)        ɟɔ̃ɔ̃
           house + SG.  DEICTIC  build + PAST  with (PREP.)  ART. *(elided)*  mud (SG.)
           bɔndʋ
           zero
           'This house is built of mud ("banco").'

(408)    dãŋ        naŋsa    lebe       la         (a)        geŋʌ
           house + SG.  DEICTIC  build + PAST  with (PREP.)  ART. *(elided)*  stone + PL.
           'This house is built of stones.'

### 2.1.1.4.10a Negative material

For negative material, paraphrases with *dɔ* and *ŋgo(se)* are available, as given in (409)–(410). Sentence (409) has the structure PP+NEG.EMPH as a second, elliptical conjoined clause (with *gʋ lebe* 'it was built' understood). In (410) the postposition *nɛ* could be interpreted as a locative 'in' or as a benefactive 'for'.

(409)  dãŋ        naŋsa    lebu    la      la         (a)         geɲʌ
       house + SG. DEICTIC  build  and/but  with (PREP.)  ART. (*elided*)  stone + PL.

       dɔ
       NEG. EMPH.

       'This house was built without stones. *(Lit.:* 'This house was built, and not with stones.'*)*

(410)  dãŋ        naŋsa    lebu    la      (a)         geɲʌ        ŋgose
       house + SG. DEICTIC  build  and/but  ART. (*elided*)  stone + PL.  not be

       gʋ                       nɛ
       PRON. 3SG. NON-HUM.       in (POSTPOS.)

       'This house was built without stones.' *(Lit.:* 'This house was built and stones were not in it.'*)*

### 2.1.1.4.11 Manner

Manner is usually expressed by means of the instrumental/comitative preposition *la*, as shown in (411). The word *bĩndɔ̃nəmɛ̃ɛ̃* is an N+N compound noun from *bĩn(dɛ)* 'heart' and *dɔ̃nəmɛ̃ɛ̃* 'goodness'.

(411)  də                     mɔ̃gsə  d(ɪ)                  la          (a)
       PRON. 3SG. HUM.  kiss   PRON. 3SG. HUM.  with (PREP.)  ART. (*elided*)

       bĩndɔ̃nəmɛ̃ɛ̃
       'heart-goodness' (SG.)

       'He kissed her with pleasure.'

### 2.1.1.4.11a Negative manner

The expected paraphrases of (411) such as *də mɔ̃gsə də la la (a) bĩndɔ̃nəmɛ̃ɛ̃ dɔ* finally broke the patience of my informants. It was judged as 'theoretically possible — but no normal person would ever say anything like that'.

## 2.1.1.4.12 Cause

Cause is expressed by means of the instrumental/comitative preposition *la*. In (412) the word 'wounds' is a loan from Mòoré, and must be a compound.

(412)  də                warɡə         la        də
       PRON. 3SG. HUM.  be exhausted  with (PREP.)  PRON. 3SG. HUM.

       sãmporɡo
       wounds (*Mòoré*)

       'He was exhausted by his wounds.'

## 2.1.1.4.13 Purpose

Purpose is expressed by the postposition *nɛ*. It is hard to find such a usage with a non-deverbal noun; sentence (413) exemplifies the usage with a GERUND *sãjɛɡam* 'upset' and a deverbal ACTION NOUN *dɩʋ* 'eat'.

(413)  də                soŋ  a    fãĩ          koŋɡo
       PRON. 3SG. HUM.  take  ART.  millet porridge  LONG DET. NON-HUM. SG.

       a     sãjɛɡam  nɛ          kaɪ   —  a    dɩʋ
       ART.  upset  for (POSTPOS.)  rather  —  ART.  eating (ACTION NOUN)

       nɛ              dɔ
       for (POSTPOS.)  NEG. EMPH.

       'He took that millet porridge to upset it rather than to eat it.' *(Lit.:* 'for upsetting, not for eating'*)*

## 2.1.1.4.14 Function

My informants were unwilling to make the distinction between 'being X' and 'being used as X', as examples (414)–(415) show. There is no other way to express 'function'.

(414)  a    dãĩnɛ       koŋ                 la      mə      zããndɪ
       ART.  wood + SG.  DET. NON-HUM. SG.  COPULA  PRON. 1SG.  club + SG.

       'I use this stick as a club.' *(Lit.:* 'This stick is my club.'*)*

(415)  a    dãĩnɛ       koŋ                 kɪrɛtə  mə      zããndɪ
       ART.  wood + SG.  DET. NON-HUM. SG.  become  PRON. 1SG.  club + SG.

       'I use this stick as a club.' *(Lit.:* 'This stick has become my club.'*)*

## 2.1.1.4.15 Reference

The notion 'about X' can be expressed by one of several (complex) post-positions, each of which has a different (local) primary meaning. In (416) we have *furo ni* (where *ni* is a harmonized variant of the simple postposition *nɛ*), of which the first word *furo* when used as a noun means 'track, trace' (e.g. of a snake); the postpositional usage means 'along'. In (417) the postposition *dɔba nɛ* means 'on top of', the noun *dɔba* in isolation meaning 'top'.

(416)   mə        sɛb(ʊ)  də              nɛ
         PRON. 1SG.  tell    PRON. 3SG. HUM.  to/for (POSTPOS.)

         gʊ                dʊrʊ  a    wal(ɪ)       kʊŋ          furo
         PRON. 3SG. NON-HUM.  all   ART.  matter + SG.  DET. NON-HUM. SG.  track

         ni
         on (POSTPOS.)

         'I told him everything about this matter.' (*Lit:* 'I told him it all on the track of this matter')

(417)   də                sɛrəgɛm  a    sɛrəgɛmdɛ  dəkɔ             gɪllɛ
         PRON. 3SG. HUM.  tell    ART  story + SG.  DISJ. PRON. 3SG. HUM.  self

         dɔba  nɛ
         top    on (POSTPOS.)

         'He told a story about himself.' *(Lit.:* 'He told a story on top of himself.')*

It is also possible to use the postposition *jõ ni*, where *jõ* means 'head', in place of *dɔba nɛ*, especially if the NP about which something is told is a person. The corresponding version of (417) is given in (418). (This substitution of the postposition *jõ* for *dɔba* is quite common — cf. §2.1.5 below on pre-/postpositions.)

(418)   də                sɛrəgɛm  a    sɛrəgɛmdɛ  dəkɔ             gɪllɛ
         PRON. 3SG. HUM.  tell    ART  story + SG.  DISJ. PRON. 3SG. HUM.  self

         jõ          nɪ
         head + SG.  on (POSTPOS.)

         'He told a story about himself.' *(Lit.:* 'He told a story on his own head.')*

## 2.1.1.4.16 Essive

As mentioned in §2.1.1.4.14 above, my informants were unwilling to make any distinction between different ways of 'being X'. On copular verbs, see §1.2.1.1 above.

## 2.1.1.4.17 Translative

Here, too, my informants made no distinction between different ways of 'being X'; the notion of 'change' can only be expressed with the help of a verb such as *kɪrɛtam* 'to become', as shown in (419).

(419)  ba              kekə  dɪ                      kɪrɛtɛ           asãmble
       PRON. 3PL. HUM.  pick  PRON. 3SG. HUM.  become + PAST  assembly (SG.)

       koŋ            jɪka          ne              saa
       DET. NON-HUM. SG.  face + SG.  at (POSTPOS.)  owner + SG.

       'They made him the president of the assembly.' *(Lit.:* 'They chose him to become the "front-position holder" of the assembly.*')*

## 2.1.1.4.18 Part-whole

There is no formally distinct expression of the part-whole relationship; a genitive compound is used, as shown in (420)–(421). The addition of *tʊllɛ* 'middle' in (421) is due do Souleymane's desire to be absolutely precise, both vertically and horizontally.

(420)  a      vaga       jõ
       ART.   dog + SG.  head + SG.

       'the head of a dog'

(421)  a      fɛkʊ       jõ          tʊllɛ
       ART.   tree + SG.  head + SG.  middle + SG.

       'the top of a tree'

## 2.1.1.4.19 Partitive

In partitive constructions no formal distinction is made between numeral and non-numeral partitives, but the numbering of the subsections has been preserved for convenience of presentation. Compare also §1.2.5.2.6 above on quantifiers.

### 2.1.1.4.19.1 Partitive numeral

A partitive consists of a (super)set (stated as a PP or NP) and a subset (stated as an NP). In this section I have chosen examples where the two sets are separated by other parts of sentence structure; in §2.1.1.4.19.3 below, examples are given where the two sets are contiguous. Syntactically, the superset PP or NP is the topic of the sentence.[3]

The postposition used in the PP superset variant is *tʊllɛ* 'middle', here meaning 'among(st)'. This is exemplified in (422), where the superset is *a bɛnna bu bɛŋ* 'the/those boys' and the subset *bɛnna bu hĩ* 'two boys'.

(422)    a     bɛnna      bu       bɛŋ       tʊllɛ      pa    bɛnna
          ART.   man + PL.   child + PL.   DET. HUM. PL.   middle + SG.   give   man + PL.

          bu        hĩ
          child + PL.   two

          'Give (it) to two of those boys!' *(Lit.:* 'Amongst those boys, give (it to) two boys!'*)*

Since this construction is quite typical for Koromfe and has several variants, it is worthwhile considering some further examples. In (423) the noun *bɛnna bu* is replaced by the pronoun *ba* in the superset, and in (424) in the subset.

(423)    ba              tʊllɛ       pa    bɛnna     bu        hĩ
          PRON. 3PL. HUM.   middle + SG.   give   man + PL.   child + PL.   two

          'Give (it) to two of those boys!' *(Lit.:* 'Amongst them, give (it to) two boys!'*)*

(424)    a     bɛnna      bu       bɛŋ       tʊllɛ      pa
          ART.   man + PL.   child + PL.   DET. HUM. PL.   middle + SG.   give

          ba              hĩ    bɛŋgɛ
          PRON. 3PL. HUM.   two   LONG DET. HUM. PL.

          'Give (it) to two of those boys!' *(Lit.:* 'Amongst the boys, give (it to) two of them!'*)*

In (425) the topic is not a postpositional phrase using *tʊllɛ* 'among(st)', but a noun phrase.

(425)    a     bɛnna      bu       bɛŋgɛ            mə         na
          ART.   man + PL.   child + PL.   LONG DET. HUM. PL.   PRON. 1SG.   see

          ba              hĩ
          PRON. 3PL. HUM.   two

          'I saw two of the boys.' *(Lit.:* 'Those boys, I saw two of them.'*)*

Finally, in (426) we see an extra dummy NP *fʊba* 'people', which is used quite typically in such constructions, either to add more substance to the pronoun which stands for the kernel noun (as here), or to replace the pronoun (as in (427) below). This extra noun is not normally used in the topic NP.

(426)  a        bɛnna      bu            bɛŋgɛ                    mə            na
       ART.   man + PL.   child + PL.   LONG DET. HUM. PL.   PRON. 1SG.   see

       ba                  foba             hĩĩ
       PRON. 3PL. HUM.   person + PL.   two

       'I saw two of the boys.' *(Lit.:* 'Those boys, I saw two people of them.'*)*

### 2.1.1.4.19.2 Non-partitive numeral

There is no special marking or structure for the non-partitive numeral. Being non-partitive, the NP has no set-subset structure, and because it has an overt quantifier (i.e. the numeral) the NP-initial article *a* must be omitted, e.g. in *bɛnna bu hĩĩ* 'two boys' in examples (422) and (423) above.

### 2.1.1.4.19.3 Partitive quantifier

The construction used with the partitive (non-numeral) quantifier is the same that is described in detail in §2.1.1.4.19.1 above. The superset is the topic of the sentence (expressed either as an NP or as a PP with the post-position *tollɛ* 'among(st)') and the subset an NP which is part of the sentence structure. Here examples are given where the superset and subset are contiguous because the expression is the (here emphasized) subject of the sentence. There is always a pause-like intonation separating the topic NP from the subject NP, e.g. between *bɛŋgɛ* and *foba* in (427). Here *kallɛ nɛ* 'some' is a postpositional phrase used as a quantifier; it can only be used with countable nouns. Sentence (427) could equally well be formulated with the quantifier *maŋəna* in place of *kallɛ nɛ*.

(427)  a        bɛnna      bu            bɛŋgɛ                    foba             kallɛ
       ART.   man + PL.   child + PL.   LONG DET. HUM. PL.   person + PL.   number + SG.

       nɛ                  la          bɛ
       to (POSTPOS.)   EMPH.   come

       'Some of the boys came.' *(Lit.:* 'Those boys, people to-a-number came.'*)*

### 2.1.1.4.19.4 Non-partitive quantifier

As with the non-partitive numeral in §2.1.1.4.19.2 above, there is no special marking or structure for the non-partitive (non-numeral) quantifier; normally the structure 'ARTICLE + NOUN' alone suffices to express the notion of non-partitive quantification, as in (428). If a non-partitive quantifier like *maŋəna* is used, it follows the rest of the NP, with no other

change to the NP, as in (429). I know of no non-partitive quantifier equivalent to 'some' for non-countable nouns.

(428) də           niilʌʌ     a     fʊba
      PRON. 3SG. HUM.   see + PROG.   ART.   person + PL.

      'He sees some people.'

(429) də           niilʌʌ     a     fʊba       maŋəna
      PRON. 3SG. HUM.   see + PROG.   ART.   person + PL.   some

      'He sees some people.'

### 2.1.1.4.19.5 Partitive negative quantifier

As with the other partitives described here, the negative partitive quantifier has a set-subset structure. The negative particle *baa* precedes the subset NP, and that NP has the quantifier 'one' (expressible in various ways such as the numeral quantifiers *dom* or *dʊfɛ*, or the disjunctive numeral *gadɔm*). Examples are given in (430)–(431). Note that in (431) the topic NP is (optionally) singular. This is only possible with the negative partitive, not with the positive partitive.

(430) a     belio     bɛ̃ŋ         baa   fo         dom   ba
      ART.   child + PL.   DET. HUM. PL.   NEG.   person + SG.   one    NEG.

      bɛnɛ
      come + PAST

      'Not one of the children came.' *(Lit.:* 'Those children, not one person (of them) didn't come.'*)*

(431) a     bɔrɔ     bi         baa   gadɔm     ba    bɛnɛ
      ART.   man + SG.   child + SG.   NEG.   one (DISJ.)   NEG.   come + PAST

      'No boy came.' *(Lit.:* 'A boy, not one didn't come.'*)*

### 2.1.1.4.19.6 Non-partitive negative quantifier

Non-partitive negative NPs with a countable kernel noun can be formed in a manner similar to the subset NPs with a partitive negative, i.e. by the use of the negative particle *baa* and the numeral 'one'. An example is given in (432). However, it is also possible to have an 'article + noun' structure and simply negate the verb, as in (433).

(432)  daa                         wɔf                    baa   kɔrɛ         dom
       NEG. PRON. 3SG. HUM.   have + DUR.   NEG.   plate + SG.   one
       'He didn't have any plates.'

(433)  maa                         zɔmmɔ̃       a       wakɩrɩ
       NEG. PRON. 1SG.   want + DUR.   ART.   5 franc coin + SG.
       'I don't want any money.'[4]

### 2.1.1.4.20 Price

An NP specifying the price of something occupies the position of an ad-verbial and normally has no marking whatsoever, as in (434).

(434)  də                     dol   gʊ                              wakɩa                    hɩ̃ɩ̃
       PRON. 3SG. HUM.   buy   PRON. 3SG. NON-HUM.   5 franc coin + PL.   two
       'He bought it for 10 francs.'[4]

### 2.1.1.4.21 Value

As with price, an NP specifying the value has no special marking; but syntactically it occupies a different position, namely the first member of an NP+N genitive compound (with the noun whose value it specifies as the second member). An example NP is given in (435).

(435)  wakɩa                     sofe      subre
       5 franc coin + PL.   twenty   pot + SG.
       'a pot worth 100 francs'

### 2.1.1.4.22 Distance

There is no special marking for NPs of distance. The bare NP occupies the adverbial position in the sentence, as shown in (436).

(436)  mə              gɔm   dɩ                     kilomʌ                              hɩ̃ɩ̃
       PRON. 1SG.   chase   PRON. 3SG. HUM.   kilogram/kilometre + PL.   two
       'I chased him for 2 kilometres.'

### 2.1.1.4.23 Extent

Extent can only be expressed by adding a subordinate clause meaning 'whose length is X'.[5] In (437) and (438) different words for 'length' are used; they are interchangeable.

(437)  a      dãŋ        dɔɪmɛ̃ɛ̃      kɔ̃(n)         tɛ         mɛtrəma    fɪ
     ART.  house + SG.  length (SG.)  NON-SPEC. REL.  arrive  metre + PL.  ten

     'a house 10 metres high' *(lit.:* 'a house whose length reaches 10 metres'*)*

(438)  a      kɛkʊ       dɔɪ         kɔ̃(n)         tɛ         mɛtrəma    kɔbəga
     ART.  field + SG.  length (SG.)  NON-SPEC. REL.  arrive  metre + PL.  hundred

     'a field 100 metres long' *(lit.:* 'a field whose length reaches 100 metres'*)*

### 2.1.1.4.24 Concessive

Concessive is expressed by the comitative preposition *la*, as in (439)–(440). The notion of persistence can be expressed either by emphasizing the verb *bɛ* with the particle *la* in (439) or by an additional verb such as *mɛŋ* 'remain', here meaning 'insist', in (440).

(439)  la           (a)             vɛŋa       koŋ                    dʊrʊ
     with (PREP.)  ART. (*elided*)  rain (SG.)  DET. NON-HUM. SG.  all

     ba              bɛ      la
     PRON. 3PL. HUM.  come    EMPH.

     'They came despite the rain.' *(Lit.:* 'With all the rain they **came.**'*)*

(440)  la           (a)             vɛŋa       koŋ                    dʊrʊ
     with (PREP.)  ART. (*elided*)  rain (SG.)  DET. NON-HUM. SG.  all

     ba              mɛŋ      ba               bɛ
     PRON. 3PL. HUM.  remain  PRON. 3PL. HUM.  come

     'They came despite the rain.' *(Lit.:* 'With all the rain they insisted they came.'*)*

### 2.1.1.4.25 Inclusion

Inclusion is expressed by *la* between NPs expressing the two sets involved and the quantifier *dʊrʊ* 'all' whose scope includes both NPs. One cannot tell whether this *la* is the coordinator 'and' or the comitative preposition 'with'. An example is given in (441).

(441)  ba              la   bʌdin(i)         dʊrʊ
     PRON. 3PL. HUM.  and  (*proper name*)  all

     'everyone including Badini' *(lit.:* '"they and Badini" all'*)*

### 2.1.1.4.26 Exclusion

Exclusion cannot be expressed directly; in (442) *gaa tɪgɛ bʌdini* is a conditional clause meaning 'if it weren't for Badini'.

(442)  ba               dʊrʊ  gaa                         tɪgɛ
       PRON. 3PL. HUM.  all  NEG. PRON. 3SG. NON-HUM.  do/be + PAST

       bʌdini
       (*proper name*)

       'everyone except Badini' *(lit.:* 'all of them, if it weren't for Badini'*)*

### 2.1.1.4.27 Addition

Addition cannot be expressed directly. The relative order of the coordinated NPs in (443)–(444) can be changed, but that is all. There is also a paraphrase using the verb 'add', as shown in (445).

(443)  fʊba         tãã    la    bʌdin(i)      la    bɛ
       person + PL.  three  and  (*proper name*)  EMPH.  come

       'Three people in addition to Badini came.' *(Lit.:* 'Three people and Badini came.'*)*

(444)  bʌdin(i)      la    fʊba       tãã    la    bɛ
       (*proper name*)  and  person + PL.  three  EMPH.  come

       'Three people in addition to Badini came.' *(Lit.:* 'Badini and three people came.'*)*

(445)  ase      ba          wɔfʊ       gʊ            dags  a
       what (QU.)  PRON. 3PL. HUM.  have + DUR.  PRON. 3SG. NON-HUM  add  ART.

       wɔnɛ      hĩĩ    hɛŋgɛ
       hen + PL.  two  LONG DET. NON-HUM. PL.

       'What have they in addition to 2 hens?' *(Lit.:* 'What have they, it is added (to) the two hens'*)*

### 2.1.1.4.28 Vocative

There exists a vocative particle *e*, spoken on a very high pitch, which can be followed by an NP, as in *é mə jɔ* 'O my chief' or *é a dɔfrɛ* 'O God'. This particle is not obligatory, and nothing else happens to the NP.

### 2.1.1.4.29 Citation form

The citation form of a Koromfe noun which takes the article *a* (cf. §1.2.5.2.4 above) always has the article. The citation form of a verb is the GERUND (with the suffix *-am*) or the DEVERBAL ACTION NOUN (with one of several noun class suffixes), and both require the preposed article *a*.[6] This

is why Koromfe has jokingly (but incorrectly) been called a language in which every word begins with [a].

### 2.1.1.4.30 Label form

Labels are not used; Koromfe is not written.

### 2.1.1.5 The expression of local semantic functions

Quite generally, Koromfe has no noun-related means of distinguishing motion to, from or past something. These semantic functions are carried out by verbs (often in sequences of clauses, and often more than one of the verbs), especially *jagam* 'to go', *bɛlam* 'to come', *sɪram* 'leave, go away (from)', *zãŋgam* 'take (from)', *gondʌm* 'leave', *jomʌm* 'follow, move along'.

The local semantic functions are borne either by a preposition (always simple) or a postposition (optionally complex; if complex the last member is *nɛ* and the other(s) are nouns which also have an meaning independent of their postpositional usage). The complex postpositions are structurally ambiguous (i.e. [[N+N]+POSTPOS.] vs. [N+[N+POSTPOS.]$_{POSTPOS.}$]), as discussed in §2.1.5 below.

Often, the use of one of the verbs of motion alone is sufficient to characterize a following NP as expressing a local semantic function, and so no pre-/postposition at all is used. Also, it is usual to add a second clause with a pronominal subject and either *jagam* 'to go' or *bɛlam* 'to come' to further specify the motion. Most of these second clauses have been omitted below to save space.

In the examples which follow, the 'a' form expresses 'at rest', the 'b' form 'motion to', the 'c' form 'motion from' and the 'd' form 'motion past'.

### 2.1.1.5.1 General

In conjunction with 'house' the general postposition *nɛ* can mean both 'at' (i.e. including 'outside') and 'in'. For clarification *joro* can be used, which always means 'in'.

(446)  a.  də            mɛŋ      a      dãŋ          nɛ
           PRON. 3SG. HUM.  remain   ART.   house + SG.   at (POSTPOS.)
           'He stayed in the house.'

b. də                  jaʊ a   dã̄ŋ         nɛ
   PRON. 3SG. HUM. go   ART. house + SG.   at (POSTPOS.)
   'He went into the house.'

c. də                  sɪr(ɪ) a   dã̄ŋ      nɛ
   PRON. 3SG. HUM. leave ART. house + SG.   at (POSTPOS.)
   'He came from the house.'

The notion of 'past X' is rarely expressed in Koromfe without specifying on which side (front, back or side). Thus the parallel sentence *də jom a dã̄ŋ nɛ* 'He went past the house' was not accepted by my informants in the sense of 'past the house' (but see example (457d) below for interiority).

In addition to *nɛ*, there is a postposition *wa* which resembles French *chez* or German *bei* in many ways. It is used primarily with persons, and can (but need not) imply 'at the house of X'. Examples are given in (447).

(447)  a. də                  mɛŋ  də                  sa            wa
          PRON. 3SG. HUM. remain PRON. 3SG. HUM. father + SG.   at (POSTPOS.)
          'He stayed with his father.' *(Or:* 'He stayed at his father's (place).'*)*

       b. də                  jaʊ  də                  sa            wa
          PRON. 3SG. HUM. go    PRON. 3SG. HUM. father + SG.   at (POSTPOS.)
          'He went to his father('s place).'

       c. də                  sɪr(ɪ) də                sa            wa
          PRON. 3SG. HUM. leave PRON. 3SG. HUM. father + SG.   at (POSTPOS.)
          'He left his father('s place).'

       d. də                  jom  də                  sa            wa
          PRON. 3SG. HUM. follow PRON. 3SG. HUM. father + SG.   at (POSTPOS.)
          'He passed by his father's place.'

However, although *wa* often implies 'at the house of', this is not a necessary condition for its use; movement to a person requires *wa* even when that person is somewhere different from 'at home'. Example (448) is taken from a text where the person involved is in a termite hill (i.e. quite definitely not at home), and sentence (449) refers to a wife and her 'dead' husband who are somewhere in the bush, far from home.

(448)  hal          a      ĵãntʊllɛ        a      fʊba          kɔ̃
       up to (PREP.) ART.   midnight (SG.)  ART.   person + PL.  when (CONJ.)

       zo           dɛm              a      luko          kɛŋ
       enter + PAST  sleep + GERUND   ART.   cat + SG.     DET. DIMIN. SG.

       bɛnɛ         də                   wa
       come + PAST   PRON. 3SG. HUM.      to (POSTPOS.)

       'Before midnight, when the people had gone indoors to sleep, the cat came to
       him.'

(449)  də                tufu + DUR.   də                wa
       PRON. 3SG. HUM.   sit + DUR.    PRON. 3SG. HUM.   at (POSTPOS.)

       də                tufu          də                wa              ze   la
       PRON. 3SG. HUM.   sit + DUR.    PRON. 3SG. HUM.   at (POSTPOS.)   there and

       də                wose
       PRON. 3SG. HUM.   be + PAST

       'She sat with him, she sat with him there, she was (there).'

There also exists a usage whereby *wa* can be used in place of *nɛ* for
potential places of residence; thus the adverbials in (450)–(451) are com-
mon alternatives for those in (452)–(453) when the second pronoun *də* is
coreferential with the first.

(450)  də                mɛŋ      də                dãŋ           wa
       PRON. 3SG. HUM.   remain   PRON. 3SG. HUM.   house + SG.   at (POSTPOS.)

       'He stayed in his (own) house.'

(451)  də                mɛŋ      də                kunne          wʌ
       PRON. 3SG. HUM.   remain   PRON. 3SG. HUM.   village + SG.  at (POSTPOS.)

       'He stayed in his (own) village.'

(452)  də                mɛŋ      də                dãŋ           nɛ
       PRON. 3SG. HUM.   remain   PRON. 3SG. HUM.   house + SG.   at (POSTPOS.)

       'He stayed in his house.'

(453)  də                mɛŋ      də                kunne          ne
       PRON. 3SG. HUM.   remain   PRON. 3SG. HUM.   village + SG.  at (POSTPOS.)

       'He stayed in his village.'

The postposition *wa* cannot be compounded with other postpositions
in the way that *nɛ* can.

171

### 2.1.1.5.2 Proximate

There exist two postpositions *sɛŋa nɛ* and *wolle* whose common-noun counterparts mean 'backside' and 'foot' respectively, which **include** the notion of proximity (though probably not as their primary meaning), but can only be used with nouns considered to have a backside or foot respectively. Nouns with a 'backside' can be almost anything, but because of the primary meaning of the word, my informants were loath to use it. Nouns with a foot include hills, walls and (for me surprisingly) bodies of water.[7] The postposition *wolle* 'foot' also expresses the notion of 'along' (e.g. a river) and is exemplified in (487) below. Two examples of *sɛŋa nɛ* are given in (454)–(455).

(454)  də                    kon  a     damɛ        koŋ                    a
       PRON. 3SG. HUM.  put   ART.  wood + SG.  DET. NON-HUM. SG.   ART.

       lurgo        koŋ                        sɛŋa               nɛ
       wall + SG.   DET. NON-HUM. SG.   backside + SG.   at (POSTPOS.)

       'He puts down the stick by the wall.' *(But also:* 'He leans the stick against the bottom of the wall.'*)*

(455)  də                    hɪtɛ          a      kunne         sɛŋa
       PRON. 3SG. HUM.  stay + PAST   ART.  village + SG.  backside + SG.

       nɛ
       at (POSTPOS.)

       'He stayed near the village.'

Otherwise, i.e. in cases where it must be distinguished from (closer) general locality, proximity can only be expressed by means of a (headless) relative clause such as *kɔ woroŋg(u)* or *kɔ dɪɪg(ɪ)* 'which is near'.

(456)  a.  də                    hɪtɛ          kɔ                worong(u)        a
           PRON. 3SG. HUM.  stop + PAST   NON-SPEC. REL.   approach/be near  ART.

           kunne         koŋ
           village + SG. DET. NON-HUM. SG.

           'He stayed near the village.' *(Lit.:* 'He stayed where is near the village.'*)*

       b.  də                    jao  kɔ                dɪɪg            a
           PRON. 3SG. HUM.  go    NON-SPEC. REL.   approach/be near  ART.

           kunne         koŋ
           village + SG. DET. NON-HUM. SG.

           'He went (to) near the village.' *(Lit.:* 'He went where is near the village.'*)*

c. də              sɪr(ɪ)  kɔ̃          worɔŋg        a
PRON. 3SG. HUM.  leave  NON-SPEC. REL.  approach/be near  ART.

kunne          koŋ
village + SG.  DET. NON-HUM. SG.

'He came from near the village.' *(Lit.:* 'He left where is near the village.')

d. də              jom    kɔ̃          worɔŋg        a
PRON. 3SG. HUM.  follow  NON-SPEC. REL.  approach/be near  ART.

kunne          koŋ
village + SG.  DET. NON-HUM. SG.

'He passed close to the village.' *(Lit.:* 'He passed where is near the village.')

### 2.1.1.5.3 Interior

The most precise expression of interior locality is with the postposition *joro* (optionally compounded with *nɛ* to give a meaning like 'on the inside of'). When used as a noun, the word *joro* means 'inside, interior'. The general postposition *nɛ* alone is also sufficient to express interiority in many cases.

(457) a. də             mɛŋ   a   dãŋ       koŋ             joro
PRON. 3SG. HUM.  remain  ART.  house + SG.  DET. NON-HUM. SG.  inside

'He stayed in the house.'

b. də              jaʊ  a   dãŋ       koŋ             joro
PRON. 3SG. HUM.  go  ART.  house + SG.  DET. NON-HUM. SG.  inside

'He went into the house.'

c. də              sɪr(ɪ)  a   dãŋ       koŋ             joro
PRON. 3SG. HUM.  leave  ART.  house + SG.  DET. NON-HUM. SG.  inside

'He came out of the house.'

d. də              jom   a   kunne     koŋ             joro
PRON. 3SG. HUM.  follow  ART.  village + SG.  DET. NON-HUM. SG.  inside

'He passed through the village.'

### 2.1.1.5.4 Exterior

There is no way to express 'pure' exteriority in Koromfe (except, of course, be negating a sentence with an interior postposition) without also

specifying one of the other functions described below (especially anterior or posterior). Even the paraphrase using the local adverb *selle* 'outdoors' does not work together with the general postposition *nɛ*, since the latter can also be used in an interior sense.

### 2.1.1.5.5 Anterior

In contrast with the other complex postpositions, the complex postposition expressing anteriority, *jɪka nɛ* is hardly ever simplified to *jɪka*. As a noun, *jɪka* means 'face' (including the body part).

(458)  a.  də                       hɪt(ɪ)  a     dãŋ        koŋ               jɪka

             PRON. 3SG. HUM. stop   ART.  house + SG.  DET. NON-HUM. SG.  face + SG.

             nɛ

             at (POSTPOS.)

             'He stayed in front of the house.'

      b.  də                      jaʊ  a    dãŋ        koŋ              jɪka

             PRON. 3SG. HUM. go  ART.  house + SG.  DET. NON-HUM. SG.  face + SG.

             nɛ

             at (POSTPOS.)

             'He went (to) in front of the house.'

      c.  də                      sɪr(ɪ)  a    dãŋ        koŋ              jɪka

             PRON. 3SG. HUM. leave  ART.  house + SG.  DET. NON-HUM. SG.  face + SG.

             nɛ

             at (POSTPOS.)

             'He came from in front of the house.'

      d.  də                      jom   a    dãŋ        koŋ

             PRON. 3SG. HUM. follow  ART.  house + SG.  DET. NON-HUM. SG.

             jɪka           nɛ

             face + SG.   at (POSTPOS.)

             'He passed in front of the house.'

If the postposition *nẽnɛ* (meaning, as a noun, 'mouth, entrance') is used in place of *jɪka nɛ* in the examples in (458), the local semantic function refers to the house entrance rather than its front.

### 2.1.1.5.6 Posterior

Posterior position is expressed by the postposition *bɛllɛ*, which as a noun means 'back'. Examples are given in (459).

(459) a. də          hɪt(ɪ) a   dãŋ      koŋ
        PRON. 3SG. HUM.   stop   ART.   house + SG.   DET. NON-HUM. SG.

        bɛllɛ
        back + SG.

        'He stayed behind the house.'

    b. də          jaʊ a   dãŋ      koŋ           bɛllɛ
        PRON. 3SG. HUM.   go   ART.   house + SG.   DET. NON-HUM. SG.   back + SG.

        'He went (to) behind the house.'

    c. də          sɪr(ɪ) a   dãŋ      koŋ           bɛllɛ
        PRON. 3SG. HUM.   leave   ART.   house + SG.   DET. NON-HUM. SG.   back + SG.

        'He came from behind the house.'

    d. də          jom a   dãŋ      koŋ
        PRON. 3SG. HUM.   follow   ART.   house + SG.   DET. NON-HUM. SG.

        bɛllɛ
        back + SG.

        'He passed behind the house.'

The complex variant of the postposition *bɛllɛ* cannot easily be used in the above sentences; however, *bɛllɛ nɛ* can be used when the NP which it modifies is a pronoun, as in (460).

(460) də          hɪt(ɪ) gʊ             bɛllɛ     nɛ
        PRON. 3SG. HUM.   stop   PRON. 3SG. NON-HUM.   back + SG.   at (POSTPOS.)

        'He stayed behind it.' *(Implied:* 'behind the house'*)*

### 2.1.1.5.7 Superior

There is little difference between *jõ tʊllɛ* 'middle of the head', exemplified in (461), and *dɔba*, in (462). The expected one (i.e. that *tʊllɛ* 'middle' implies some degree of vertical alignment) does not hold, and the two postpositions are practically interchangeable (and can be interchanged in all example sentences in (461) and (462)). However, *jõ tʊllɛ* cannot be used when a surface is involved (see §2.1.1.5.8a below).

    The complex variant *dɔba nɛ* for simple *dɔba* can also be used in all parts of (462). There is no other (more complex) variant for *jõ tʊllɛ*.

(461)  a.   a       fɪrɛ      koŋ                  hɪtɛ        a     dãŋ

               ART.  sun (SG.)  DET. NON-HUM. SG.  stop + PAST  ART.  house + SG.

               koŋ                   jõ           tʊllɛ

               DET. NON-HUM. SG.  head + SG.  middle + SG.

               'The sun stayed above the house.'

      b.   a       fɪrɛ      koŋ                  jakaa     a     dãŋ

               ART.  sun (SG.)  DET. NON-HUM. SG.  go + PROG.  ART.  house + SG.

               koŋ                   jõ           tʊllɛ

               DET. NON-HUM. SG.  head + SG.  middle + SG.

               'The sun is going (to a position) above the house.'

      c.   a       fɪrɛ      koŋ                  sɪtaa     a     dãŋ

               ART.  sun (SG.)  DET. NON-HUM. SG.  leave + PROG.  ART.  house + SG.

               koŋ                   jõ           tʊllɛ

               DET. NON-HUM. SG.  head + SG.  middle + SG.

               'The sun is leaving (the position) above the house.'

      d.   a       fɪrɛ      koŋ                  jommʌʌ     a     dãŋ

               ART.  sun (SG.)  DET. NON-HUM. SG.  follow + PROG.  ART.  house + SG.

               koŋ                   jõ           tʊllɛ

               DET. NON-HUM. SG.  head + SG.  middle + SG.

               'The sun is passing above the house.'

(462)  a.   a      lembɔgʌ   koŋ                  wãnaa     a     dãŋ

               ART.  bird + SG.  DET. NON-HUM. SG.  be + PROG.  ART.  house + SG.

               koŋ                   dɔba

               DET. NON-HUM. SG.  top (POSTPOS.)

               'The bird is on the top of the house.'

      b.   a      lembɔgʌ   koŋ                  jʊraa     a     dãŋ

               ART.  bird + SG.  DET. NON-HUM. SG.  fly + PROG.  ART.  house + SG.

               koŋ                   dɔba

               DET. NON-HUM. SG.  top (POSTPOS.)

               'The bird flies onto the house.'

c.  a       lembəgʌ    koŋ                     sɪtaa           a      dãŋ
    ART.    bird + SG.  DET. NON-HUM. SG.      leave + PROG.   ART.   house + SG.

    koŋ                     dɔba
    DET. NON-HUM. SG.       top (POSTPOS.)

    'The bird leaves the (top of the) house.'

d.  a       lembəgʌ    koŋ                     bɛrɛmsraa       a      dãŋ
    ART.    bird + SG.  DET. NON-HUM. SG.      pass + PROG.    ART.   house + SG.

    koŋ                     dɔba
    DET. NON-HUM. SG.       top (POSTPOS.)

    'The bird flies past the top of the house.'

### 2.1.1.5.8 Superior-contact

There is no distinction between superior with or without contact, as can be seen from the 'sun' vs. 'bird' examples in the previous section.[8] Further examples are given in (464). (Note that normally a 'stove' consists of three stones on which one cooking pot can be placed; it has no flat surface.) Unfortunately, removing a cooking pot from a stove has a fixed expression with the general postposition *nɛ* in 'c'. (Note also that the determiner *koŋ* is omitted before *tɔfa* in 'c'.) No reliable answer could be elicited for a 'd' form.

(463)  a.  a       fãĩ                          joroŋ       koŋ                     wãnaa
           ART.    millet porridge (SG.)        pot + SG.   DET. NON-HUM. SG.      be + PROG.

           a       tɔfa        koŋ                     dɔba
           ART.    stove + SG.  DET. NON-HUM. SG.      top (POSTPOS.)

           'The cooking pot is on the stove.'

       b.  də                      kon  a      fãĩ                          joroŋ
           PRON. 3SG. HUM.         put  ART.   millet porridge (SG.)        pot + SG.

           koŋ                     a      tɔfa        koŋ
           DET. NON-HUM. SG.       ART.   stove + SG.  DET. NON-HUM. SG.

           dɔba
           top (POSTPOS.)

           'She puts the cooking pot on the stove.'

c.  də                    zãŋ   a      fãĩ                         joroŋ
    PRON. 3SG. HUM.  take  ART.  millet porridge (SG.)  pot + SG.

    koŋ                    a      tɔfa        nɛ
    DET. NON-HUM. SG.  ART.  stove + SG.  at (POSTPOS.)

    'She takes the cooking pot from the stove.'

## 2.1.1.5.8a Surface

When a surface is involved, *jõ tʊllɛ* cannot be used (probably because 'head' suggest something that sticks up). However, *dɔba* can still be used, as shown in (464), which is identical to (462) except for the word 'table' instead of 'house'.

(464)  a.  a      lembəgʌ    koŋ                         wãnaa    a      tabl(ʊ)
           ART.  bird + SG.  DET. NON-HUM. SG.  be + PROG.  ART.  table + SG.

           koŋ                         dɔba
           DET. NON-HUM. SG.  top (POSTPOS.)

           'The bird is on the top of the table.'

       b.  a      lembəgʌ    koŋ                         jʊraa   a      tabl(ʊ)
           ART.  bird + SG.  DET. NON-HUM. SG.  fly + PROG.  ART.  table + SG.

           koŋ                         dɔba
           DET. NON-HUM. SG.  top (POSTPOS.)

           'The bird flies onto the table.'

       c.  a      lembəgʌ    koŋ                         sɪtaa    a      tabl(ʊ)
           ART.  bird + SG.  DET. NON-HUM. SG.  leave + PROG.  ART.  table + SG.

           koŋ                         dɔba
           DET. NON-HUM. SG.  top (POSTPOS.)

           'The bird leaves the table.'

       d.  a      lembəgʌ    koŋ                         bɛrɛmsraa  a      tabl(ʊ)
           ART.  bird + SG.  DET. NON-HUM. SG.  pass + PROG.  ART.  table + SG.

           koŋ                         dɔba
           DET. NON-HUM. SG.  top (POSTPOS.)

           'The bird flies over the top of the table.'

## 2.1.1.5.9 Inferior

The notion 'under' is expressed by the simple postposition *hogo*. No vertical alignment is required or implied. The word *hogo* never forms a com-

pound with *nɛ* such as *\*hogo ni*. As an independent noun *hogo* means 'underside'.

(465) a. də                  mɛŋ  a    fɛkʊ     koŋ
        PRON. 3SG. HUM.  stay  ART.  tree + SG.  DET. NON-HUM. SG.

        hogo
        under (POSTPOS.)

        'He stayed under the tree.'

     b. də                  jaʊ  a    fɛkʊ     koŋ
        PRON. 3SG. HUM.  go  ART.  tree + SG.  DET. NON-HUM. SG.

        hogo
        under (POSTPOS.)

        'He went under the tree.'

     c. də                  sɪr(ɪ)  a    fɛkʊ     koŋ
        PRON. 3SG. HUM.  leave  ART.  tree + SG.  DET. NON-HUM. SG.

        hogo
        under (POSTPOS.)

        'He came from under the tree.'

     d. də                  jom  a    fɛkʊ     koŋ
        PRON. 3SG. HUM.  follow  ART.  tree + SG.  DET. NON-HUM. SG.

        hogo
        under (POSTPOS.)

        'He passed under the tree.'

### 2.1.1.5.10 Inferior-contact

The example in (466) was elicited with the scenario that the person involved was touching the bottom of the table with his head — and I got precisely that. There is no difference vis-à-vis lack of contact, therefore only the 'a' form is given.

(466)  a.  də                 wãnaa    (a)          tablə
             PRON. 3SG. HUM.  be + PROG.  ART. (*elided*)  tree + SG.

             koŋ               hogo        —       də             jõ
             DET. NON-HUM. SG.  under (POSTPOS.)  —  PRON. 3SG. HUM.  head + SG.

             koŋ               hataa     (a)          tabl(ʊ)
             DET. NON-HUM. SG.  touch + PROG.  ART. (*elided*)  table (SG.)

             koŋ
             DET. NON-HUM. SG.

             'He is under the table — his head is touching the table.'

### 2.1.1.5.11 Lateral

Laterality is normally expressed by the postposition *hɛrga*, which as a noun means 'side'. It can form a compound postposition *hɛrga nɛ*. The notion 'to a position beside' cannot be expressed by (467b), but would have to be expressed by *də jaʊ də jõ̃ndɔ wa* 'he went to his brother' (using the general postposition *wa* instead of *hɛrga* in 467b) plus sentence (467a) (or *də mɛŋ də hɛrga* with pronoun substitutes).

(467)  a.  də               mɛŋ  də              jõ̃ndɔ
             PRON. 3SG. HUM.  stay  PRON. 3SG. HUM.  elder sibling + SG.

             hoŋ            hɛrga
             DET. HUM. SG.  side (POSTPOS.)

             'He stayed next to his brother.'

      b.  də               jaʊ  də              jõ̃ndɔ
             PRON. 3SG. HUM.  go  PRON. 3SG. HUM.  elder sibling + SG.

             hɛrga
             side (POSTPOS.)

             'He walked alongside his brother.' *(Not:* 'He went to (a position) next to his brother'*)*

      c.  də               sɪr(ɪ)  də             jõ̃ndɔ
             PRON. 3SG. HUM.  leave  PRON. 3SG. HUM.  elder sibling + SG.

             hɛrga
             side (POSTPOS.)

             'He came from (a position) next to his brother.'

d.  dǝ               bɛrɛmsɛ     dǝ              ʝɔ̃ɔ̃ndɔ
    PRON. 3SG. HUM.  pass + PAST  PRON. 3SG. HUM.  elder sibling + SG.

    hɛrga
    side (POSTPOS.)

    'He passed (a position) next to his brother.'

The last example, (467d), was allowed by my informants only under protest, since the verb *bɛrɛmsɛ* can be used transitively, as in (468).

(468)  dǝ               bɛrɛmsɛ     dǝ              ʝɔ̃ɔ̃ndɔ
       PRON. 3SG. HUM.  pass + PAST  PRON. 3SG. HUM.  elder sibling + SG.

       'He passed his brother.'

For laterality vis-à-vis a body of water (such as a river or lake) or the bush, the postposition *nɛ̃nɛ* must be used. This word means 'mouth' when used as a noun, also in the extended sense of 'entrance'. Examples are given in (469). The postposition *nɛ̃nɛ* can also be compounded with *nɛ*, in which case *a hem nɛ̃nɛ nɛ* means 'in the water at the edge of the water'.

(469)  a.  dǝ               tufoo        a     hem         nɛ̃nɛ
           PRON. 3SG. HUM.  sit + PROG.   ART.  water (SG.)  mouth (POSTPOS.)

           'He is sitting at the edge of the water.'

       b   dǝ               jaʊ  a     hem         nɛ̃nɛ
           PRON. 3SG. HUM.  go   ART.  water (SG.)  mouth (POSTPOS.)

           'He walked alongside the water.'[9]

       c.  dǝ               sɪr(ɪ)  a    hem         nɛ̃nɛ
           PRON. 3SG. HUM.  leave   ART.  water (SG.)  mouth (POSTPOS.)

           'He came from alongside the water.'

       d.  dǝ               jom     a    hem         nɛ̃nɛ
           PRON. 3SG. HUM.  follow  ART.  water (SG.)  mouth (POSTPOS.)

           'He passed alongside the water.'

### 2.1.1.5.12 Lateral-contact

As with all other local semantic functions, there is no contact distinction with laterality. The sentences in (470) exemplify lateral contact with a stick leaning against a wall; no 'd' form could be elicited that contained *hɛrga*, probably because the verbs for 'slide' can be used transitively, as in (471).

(470) a.  a      dãĩnɛ          koŋ                           wãnaa        a       lurgo
          ART.  wood + SG.   DET. NON-HUM. SG.   be + PROG.   ART.   wall + SG.

          koŋ                           hɛrga
          DET. NON-HUM. SG.   side (POSTPOS.)

          'The stick is leaned against the wall.'


      b.  də                      kon   a       dãĩnɛ          koŋ                           a
          PRON. 3SG. HUM.   put   ART.   wood + SG.   DET. NON-HUM. SG.   ART.

          lurgo        koŋ                           hɛrga
          wall + SG.   DET. NON-HUM. SG.   side (POSTPOS.)

          'He leans the stick against the wall.'


      c.  də                      zãŋ    a       dãĩnɛ          koŋ                           a
          PRON. 3SG. HUM.   take   ART.   wood + SG.   DET. NON-HUM. SG.   ART.

          lurgo        koŋ                           hɛrga
          wall + SG.   DET. NON-HUM. SG.   side (POSTPOS.)

          'He takes the stick from a position leaning against the wall.'


(471) a      damɛ           koŋ                           halǝs(ı)   a       lurgo
      ART.   wood + SG.   DET. NON-HUM. SG.   slide      ART.   wall + SG.

      koŋ                           gʊ                           sɔl
      DET. NON-HUM. SG.   PRON. 3SG. NON-HUM.   fall

      'The stick slides along/down the wall (as) it falls.'[10]


### 2.1.1.5.13 Citerior

There is no direct expression of citeriority in Koromfe; one can only use something like (472) (which corresponds quite closely to English *this side of*).

(472) a      tuu               koŋ                           jıka          naŋsa       də
      ART.   bush (SG.)   DET. NON-HUM. SG.   face + SG.   DEICTIC   PRON. 3SG. HUM.

      hıtɛ
      stop + PAST

      'He stayed on this side of the forest/bush.'


### 2.1.1.5.14 Citerior-contact

There is no distinction of contact.

*2.1.1.5.15 Ulterior*

In contrast with citeriority, ulteriority can be expressed directly, though only as posteriority (cf. §2.1.1.5.6 above) by means of *bɛllɛ*, as exemplified in (473), or optionally the compound *bɛllɛ nɛ*, and also, less directly, by the phrase *dobo hĩ*, exemplified in (474). The word *dobo* does not exist in any other context; *hĩ* means 'direction' as an independent noun or in nominal compounds.

(473)  a.  də                    mɛŋ        a      tuu         koŋ
           PRON. 3SG. HUM.   remain   ART.  bush (SG.)   DET. NON-HUM. SG.

           bɛllɛ
           back (POSTPOS.)

           'He stayed on the other side of the forest/bush.'

       b.  də                    jaʊ   a      tuu        koŋ
           PRON. 3SG. HUM.   go   ART.  bush (SG.)   DET. NON-HUM. SG.

           bɛllɛ
           back (POSTPOS.)

           'He goes to the other side of the forest/bush.'

       c.  də                    sɪrɛ          (a)            tuu
           PRON. 3SG. HUM.   leave + PAST   ART. (*elided*)   bush (SG.)

           koŋ                        bɛllɛ
           DET. NON-HUM. SG.    back (POSTPOS.)

           'He came from the other side of the forest/bush.'

       d.  də                    jom          a              tuu
           PRON. 3SG. HUM.   leave + PAST   ART. (*elided*)   bush (SG.)

           koŋ                        bɛllɛ
           DET. NON-HUM. SG.    back (POSTPOS.)

           'He passed by the other side of the forest/bush.'

(474)  də                    mɛŋ          a              tuu         koŋ
       PRON. 3SG. HUM.   leave + PAST   ART. (*elided*)   bush (SG.)   DET. NON-HUM. SG.

       dobo          hĩ
       ? other side  direction (SG.)

       'He stayed on the other side of the forest/bush.'

A third possibility which was offered by my informants in this context was a deictic phrase *nɛŋ tobre* or *nɛŋ hĩ* (usable interchangeably, both

meaning 'in this direction'), which require an accompanying non-verbal gesture. Examples are given in (475)–(477).

(475)  də                sɪɾɛ        (a)          tuu      nɛŋ  hĩ
       PRON. 3SG. HUM. leave + PAST ART. *(elided)* bush (SG.) thus direction (SG.)

       də               bɛ
       PRON. 3SG. HUM. come

       'He came from **this/that** side of the forest/bush.' *(With a gesture.)*

(476)  də                jom   a    tuu     koŋ           nɛŋ
       PRON. 3SG. HUM. follow ART. bush (SG.) DET. NON-HUM. SG. thus

       tobre
       direction (SG.)

       'He passed by **this/that** side of the forest/bush.' *(With a gesture.)*

(477)  a    dãĩnɛ     koŋ                ziri  a    fɛkʊ
       ART. wood + SG. DET. NON-HUM. SG. lean ART. tree + SG.

       koŋ               nɛŋ  tobre
       DET. NON-HUM. SG. thus direction (SG.)

       'The stick is leaned against **this/that** side of the tree.' *(With a gesture.)*

### 2.1.1.5.16 Ulterior-contact

There is no distinction of contact.

### 2.1.1.5.17 Medial (2)

The expression of medial position is the same for two and for more than two points of reference. Here the word *tʊllɛ* 'middle' is the postposition. Examples with two are given in (478).

(478)  a.  də                mɛŋ  fɛbɪ     hĩĩ  hɛ̃ŋ
          PRON. 3SG. HUM. remain tree + PL. two DET. NON-HUM. PL.

          tʊllɛ
          middle (POSTPOS.)

          'He stayed between the two trees.'

       b.  də                jaʊ fɛbɪ     hĩĩ  hɛ̃ŋ
          PRON. 3SG. HUM. go tree + PL. two DET. NON-HUM. PL.

          tʊllɛ
          middle (POSTPOS.)

          'He went to (a position) between the two trees.'

c. də                        sır(ı)    fɛbɪ       hĩĩ   hɛ̃ŋ
PRON. 3SG. HUM.   leave   tree + PL.   two   DET. NON-HUM. PL.

tʊllɛ                       də                     bɛ
middle (POSTPOS.)   PRON. 3SG. HUM.   come

'He came from (a position) between the two trees.'

d. də                        jom    fɛbɪ       hĩĩ   tʊllɛ
PRON. 3SG. HUM.   follow   tree + PL.   two   middle (POSTPOS.)

'He passed between two trees.'

## 2.1.1.5.18 Medial (3+)

Since the expression of medial position is the same for two and for more than two points of reference (see the previous section) only a single example with more than two is given in (479). Here I specifically gave my informants the scenario of more than two trees; but these sentences could be used even if only two trees were involved.

(479)  a. də                        mɛŋ    a    fɛbɪ       hɛ̃ŋ
PRON. 3SG. HUM.   remain   ART.   tree + PL.   DET. NON-HUM. PL.

tʊllɛ
middle (POSTPOS.)

'He stayed among the trees.'

b. də                        jaʊ   a    fɛbɪ       hɛ̃ŋ
PRON. 3SG. HUM.   go   ART.   tree + PL.   DET. NON-HUM. PL.

tʊllɛ
middle (POSTPOS.)

'He went to (a position) among the trees.'

c. də                        sır(ı)   a    fɛbɪ       hɛ̃ŋ
PRON. 3SG. HUM.   leave   ART.   tree + PL.   DET. NON-HUM. PL.

tʊllɛ                       də                     bɛ
middle (POSTPOS.)   PRON. 3SG. HUM.   come

'He came from (a position) among the trees.'

d. də                        jom    a    fɛbɪ       hɛ̃ŋ
PRON. 3SG. HUM.   follow   ART.   tree + PL.   DET. NON-HUM. PL.

tʊllɛ
middle (POSTPOS.)

'He passed through the trees.'

### 2.1.1.5.19 Circumferential

I have found no way to express the notion of circumferential motion around some object using a postposition. Circumferentiality is expressed by the verb *giletʌm* 'surround, be around, move around'. Example (480) can be used for both the stative and 'motion towards' readings.

(480)   a     bɛ̃nna     bɛ̃ŋ          gilete       (a)
        ART.  man + PL.  DET. HUM. PL.  surround + PAST  ART. (*elided*)

        kunne      koŋ
        village + SG.  DET. NON-HUM. SG.

        'The men were (located) surrounding the village.' *Or:* 'The men surrounded the village.' *Or:* 'The men walked round (the circumference of) the village.'

### 2.1.1.5.20 Citerior-anterior

The notion 'opposite' has no direct equivalent in Koromfe. The plain anterior postposition *jɪka (nɛ)* can be used, as exemplified in (481) (which was given both with and without *nɛ*, or there is a wide range of paraphrases, two of which are given in (482)–(483).

(481)   məkɔ         dãŋ       koŋ           jɪka     nɛ
        DISJ. PRON. 1SG.  house + SG.  DET. NON-HUM. SG.  face + SG.  at (POSTPOS.)

        də            dãŋ       wɛ̃
        PRON. 3SG. HUM.  house + SG.  be

        'His house is opposite mine.' *(Lit.:* 'In front of my house is his house.'*)*

(482)   də               dãŋ       la  mə       dãŋ       jellʌʌ
        PRON. 3SG. HUM.  house + SG.  and  PRON. 1SG.  house + SG.  see + PROG.

        dombʌ
        comrade + PL.

        'His house is opposite mine.' *(Lit.:* 'His house and my house see one another.'*)*

(483)   a     bɔr(ʊ)     la    saɪ    ʊkɔ          dãĩ
        ART.  road + SG.  EMPH.  divide  DISJ. PRON. 1PL.  house + PL.

        hɛ̃ŋgɛ
        LONG DET. NON-HUM. SG.

        '**A road** separates our houses.'

### 2.1.1.5.21 Interior (long object)

There is no distinction between long and short objects. Examples are given below for motion through the interior of a long object. The normal interior postposition *joro* can be used, as in (484), or optionally be omitted, as in (485), since *jomʌm* 'to follow, pass over/through' can be used transitively. The expression *a fɛkʊ koŋ bɔ̃* is an NP+N compound and means 'the tree's hole'.

(484)    a    dɔɔ        koŋ                jom    a    fɛkʊ
        ART.  animal + SG.  DET. NON-HUM. SG.  follow  ART.  tree + SG.

        koŋ                bɔ̃          joro
        DET. NON-HUM. SG.  hole + SG.  in (POSTPOS.)

        'The animal passes through the middle of the hollow tree.'

(485)    a    dɔɔ        koŋ                jom    a    fɛkʊ
        ART.  animal + SG.  DET. NON-HUM. SG.  follow  ART.  tree + SG.

        koŋ                bɔ̃          gʊ               siri
        DET. NON-HUM. SG.  hole + SG.  PRON. 3SG. NON-HUM.  leave

        'The animal passes through the middle of the hollow tree and comes out again.'

### 2.1.1.5.22 Exterior (long object)

There is no way to express exteriority directly in Koromfe, as stated in 2.1.1.5.4 above. However, there do exist two special expressions for motion along a river, the first (486) involving (probably)[11] a derivative of the word *dɔɪ* 'length' and the second (487) with *wolle* 'foot, leg'. In these examples the river is referred to simply as 'water' — a typical usage.

(486)    də                jom    a    hem      koŋ
        PRON. 3SG. HUM.  follow  ART.  water (SG.)  DET. NON-HUM. SG.

        dɔɪla
        along (POSTPOS.)

        'He passed along the length of the river.'

(487)    də                jom    a    hem      koŋ
        PRON. 3SG. HUM.  follow  ART.  water (SG.)  DET. NON-HUM. SG.

        wolle
        foot (POSTPOS.)

        'He passed along the length of the river.'

*Morphology*

### 2.1.1.5.23 Superior (long object)

It is not usual to use the normal superior postposition *dɔba* to express
motion above a long object in the direction of its length — though perhaps
only because the verb *jomʌm* 'follow, move along' can take a direct object.
The two expressions described in the previous section for motion along a
river can also be used for superior relative position, as shown in (488)–
(489).

(488)  a      lembəgʌ   koŋ                        jʊ  gʊ                       jom
      ART.  bird + SG.  DET. NON-HUM. SG.  fly  PRON. 3SG. NON-HUM.  follow

      a       hem              koŋ                        wolle
      ART.  water (SG.)    DET. NON-HUM. SG.  foot (POSTPOS.)

      'The bird flew along the length of the river.'

(489)  a      lembəgʌ   koŋ                        jʊ  gʊ                       jom
      ART.  bird + SG.  DET. NON-HUM. SG.  fly  PRON. 3SG. NON-HUM.  follow

      a       hem              koŋ                        dɔıla
      ART.  water (SG.)    DET. NON-HUM. SG.  along (POSTPOS.)

      'The bird flew along the length of the river.'

### 2.1.1.5.24 Superior-contact (long object)

When contact is involved, *dɔba* is more usual (though still optional).

(490)  a      dɔɔ              koŋ                        jom    a      fɛkʊ
      ART.  animal + SG.  DET. NON-HUM. SG.  follow  ART.  tree + SG.

      koŋ                        kutre            dɔba
      DET. NON-HUM. SG.  trunk + SG.  top (POSTPOS.)

      'The animal passes along the tree trunk.'

### 2.1.1.5.24a Surface (long object)

There is no difference between superior contact with and without a flat
surface; the verb *jomʌm* is used, with or without *dɔba*.

### 2.1.1.5.25 Inferior (long object)

Here, the shape of the object is irrelevant. Example (491) was elicited with
the scenario that a tree trunk was supported by rocks an each end, so that
an animal could walk along the underside.

188

(491)  a    dɔɔ          koŋ                jom   a    fɛkʊ
       ART.  animal + SG.  DET. NON-HUM. SG.  follow  ART.  tree + SG.

       koŋ                hogo
       DET. NON-HUM. SG.  under (POSTPOS.)

       'The animal walked along (under) the tree.'

### 2.1.1.5.26 Inferior-contact (long object)

Contact makes no difference. Example (491) was also elicited with the scenario of an animal crawling along the underside of a tree trunk.

### 2.1.1.5.27–29a Through/across (long object) at right angles to its length

There is no pre-/postposition which expresses motion at right angles to a long object; but the (transitive) verb *dɔgsam* 'cross' does precisely this, irrespective of the dimensions interior, superior, contact and surface. Examples are given in (492)–(494).

(492)  də                dɔgsɛ        a     hem         koŋ
       PRON. 3SG. HUM.    cross + PAST  ART.  water (SG.)  DET. NON-HUM. SG.

       'He crossed the river.'

(493)  də                dɔgsɛ        (a)            kɛkʊ
       PRON. 3SG. HUM.    cross + PAST  ART. (*elided*)  field + SG.

       koŋgo
       LONG DET. NON-HUM. SG.

       'He crossed the field.' *(Scenario: at right angles to a long field)*

(494)  a     lembɔgʌ koŋ               jʊraa        gʊ
       ART.  bird + SG.  DET. NON-HUM. SG.  fly + PROG.  PRON. 3SG. NON-HUM.

       dɔgsr(ʊ)        a     dãŋ          koŋ
       cross + DUR.    ART.  house + SG.  DET. NON-HUM. SG.

       'The bird flies over the house.' *(Scenario: at right angles to a long house)*

### 2.1.1.6 The expression of location in time

None of the expressions of time described in the following sub-sections can be the complement of a copular verb.

The expressions described in §2.1.1.6.1–2 can sometimes be used attributively as the first member of an NP+N genitive compound (see the relevant sections for details), but none of the complex expressions of time

in §2.1.1.6.3–11 below can be used attributively except by the use of a relative clause.

There are no restrictions on the tense/aspect of the verb beyond the general restrictions on tense/aspect described in §2.1.3.2–3 below. Note, however, that this means that for single, punctual actions in the past, only the UNMARKED or PAST verb form can be used (which allows a contrast with durational or repeated actions), while a single, punctual action in the future must have a verb in the PROGRESSIVE or DURATIVE, and therefore cannot be distinguished from a durational or repeated action.

### 2.1.1.6.1 General

A very common strategy for expressing time as an adverbial in Koromfe, and which cannot be accommodated in the following sub-sections, is to use a subordinate adverb clause of time introduced by *kɔN*,[12] with the NP expressing the location in time as the subject NP and a verb like 'arrive', 'start', 'leave', 'remain'. Two examples from my texts are given in (495) (a full sentence) and (496) (an adverbial). The latter, though lengthy, shows how expressions of time are treated in exactly the same way as other adverb clauses of time, with which they are juxtaposed. Note also the use of *a fʌgiri posʌm* (syntactically an NP+N compound) 'the praying of the first prayer of the day' as a time of day, on a par with 'dawn' and 'day'.

(495)

| kɔn | də | hore | də | dãŋ |
|---|---|---|---|---|
| when (CONJ.) | PRON. 3SG. HUM. | lie + PAST | PRON. 3SG. HUM. | house + SG. |

| nɛ | a | wugo | a | wete | kɔm | bɛnɛ |
|---|---|---|---|---|---|---|
| in (POSTPOS.) | ART. | dawn (SG.) | ART. | day + SG. | when (CONJ.) | come + PAST |

| tɛ | a | fʌgiri | posʌm | kɔm | bɛnɛ |
|---|---|---|---|---|---|
| arrive | ART. | first prayer (SG.) | pray + GERUND | when (CONJ.) | come + PAST |

| tɛ | a | bɔrɔ | kɔn | də | bɛnɛ |
|---|---|---|---|---|---|
| arrive | ART. | man + SG. | when (CONJ.) | PRON. 3SG. HUM. | come + PAST |

| jɛ̃ŋsɪ | də | kɔndʊ | ke | a | sɔɔrɔ |
|---|---|---|---|---|---|
| get up | PRON. 3SG. HUM. | find | that (CONJ.) | ART. | (luxurious) house + SG. |

| joro | də | wɛ̃ |
|---|---|---|
| in (POSTPOS.) | PRON. 3SG. HUM. | be |

'When he had slept in his house, (when) dawn, when day had come, when the first (Islamic) prayer had come, when the man had got up, he found that he was in a luxurious house.'

·96)  a    kara           kɔ̃              filetɛ

    ART.  dry season (SG.)  when (CONJ.)  arrive + PAST

    'at New Year' *(lit.: when the dry season has arrived)*

There are only five pre-/postpositions which can be used to form temporal adverbials: the prepositions *hal* 'back to' and *la* 'during, within, after' and the postpositions *dɔba (nɛ)* 'after', *bɛllɛ nɛ* 'after', *joro* 'during, within'. In particular, note that there is no pre-/postposition that can be used for anterior time (i.e. expressing the notion 'before', etc.).

A simple point in time of any size or type, if expressed adverbially, is realized as a bare NP in the adverbial position in the sentence (i.e. normally at the end, but optionally at the front).

### 2.1.1.6.1.1 Time of day

There is no pre-/postposition which expresses the time of day. For the adverbial usage, the bare NP is located in adverbial position within the sentence, as in (497)–(499), or a subordinate clause can be used, as in (500)–(501). Note that for the hours, either the French[13] or indigenous terms can be used interchangeably; for minutes, only the French term is used.[14]

(497)  a    dizœrɪ         də                  bɛllɪ

    ART.[15]  10 o'clock  PRON. 3SG. HUM.  come + DUR.

    'He will come at 10 o'clock.'

(498)  də                  bɛllaa        wakatəma  fɪ

    PRON. 3SG. HUM.  come + PROG.  hour + PL.  ten

    'He will come at 10 o'clock.'

(499)  wakatəma  fɪ    a    batʊ          koŋ                    kutu

    hour + PL.  ten  ART.  dance + SG.  DET. NON-HUM. SG.  begin + DUR.

    'The dance begins at 10 o'clock.'

(500)  wakatəma  pɛ̃ɛ̃  kɔ̃ŋ            gonde          minytəmʌ    fĩntãã

    hour + PL.  seven  when (CONJ.)  leave + PAST  minute + PL.  thirty

    'half past 7' *(lit.:* 'when 7 o'clock has departed (by) 30 minutes'*)*

(501)  a    ɥitœr      kɔ̃              mɛŋɛ            minytəmʌ    fɪ la mɔm

    ART.  8 o'clock  when (CONJ.)  remain + PAST  minute + PL.  fifteen

    'quarter to 8' *(lit:* 'when 15 minutes remain (before) 8 o'clock'*)*

The usage as the complement of a copular construction is not usual with times of day (though it is with periods of the day and days of the week). This is probably because the times of day are not very widely used and precise timing (to the minute) is not so usual as in Europe, so that periods of the day or the five Islamic prayers suffice as the smallest unit of time for everyday usage.

The attributive usage has the time NP as the first part of an NP+N compound with the noun which it modifies, as exemplified in (502).

(502)   wakatəma   fɪ    batʊ            koŋ                           kuru
        hour + PL.   ten   dance + SG.   DET. NON-HUM. SG.   begin

        'The 10 o'clock dance has started.'

### 2.1.1.6.1.2 Period of day

As with the time of day, a period of the day, when used adverbially, is normally expressed as an NP without any pre-/postposition, and is located in adverbial position within the sentence, as shown in (503).

(503)   də                               bɛllaa              a        zɔɪ
        PRON. 3SG. HUM.   come + PROG.   ART.   evening + SG.

        'He will come in the afternoon.'

The NP can also be the complement of a copula such as *la*, as shown in (504), and is the first member of an NP+N compound when used attributively, as in (505).

(504)   a        batʊ            koŋ                           a        zɔɪ               koŋ
        ART.   dance + SG.   DET. NON-HUM. SG.   ART.   evening + SG.   DET. NON-HUM. SG.

        la
        COPULA

        'The dance is in the afternoon.'

(505)   a        zɔɪ               batʊ            koŋ                           kuru
        ART.   evening + SG.   dance + SG.   DET. NON-HUM. SG.   begin

        'The afternoon dance has started.'

### 2.1.1.6.1.3 Day of the week

The days of the week behave syntactically in the same way as the periods of the day, as exemplified in (506)–(508).

(506) dɔ                bɛllaa      a     tɛ̃nɛ    koŋ
       PRON. 3SG. HUM.   come + PROG.    ART.   Monday   DET. NON-HUM. SG.

       'He will come on Monday.'

(507) a    batʊ       koŋ                tɛ̃nɛ   koŋ                la
       ART.   dance + SG.   DET. NON-HUM. SG.   Monday   DET. NON-HUM. SG.   COPULA

       'The dance is on Monday.'

(508) a    tɛ̃nɛ    batʊ      koŋ                kuru
       ART.   Monday   dance + SG.   DET. NON-HUM. SG.   begin

       'The Monday dance has started.'

### 2.1.1.6.1.4 Month of the year

It is not usual to reckon time in terms of months, and there are no indigenous names for the months (but only for the seasons of the year and for special occasions). It is rumoured that some people use the French months, and one would expect that with 26% Muslims the Koromba would use the Arabic names of months, just as they use Arabic names for days of the week; but none of my informants considered himself sufficiently competent to do so.

### 2.1.1.6.1.5 Year

There is no way to express a year such as 1976 in native Koromfe by any system of time reckoning. Years are only used to count the age of people and things.

### 2.1.1.6.1.6 Festivals

The syntactic constructions used for special times of the year are the same as for periods of the day and days of the week (sections 2.1.1.6.1.2–3 above). However, it is more typical to use the subordinate clause structure mentioned in §2.1.1.6.1 above and exemplified in (496). (Note that in (496) the festival and the season are indistinguishable.)

### 2.1.1.6.1.7 Seasons

The syntactic constructions used for special times of the year are the same as for periods of the day and days of the week (sections 2.1.1.6.1.2–3 above). As with festivals, it is more typical to use the subordinate clause structure mentioned in §2.1.1.6.1 above and exemplified in (496).

## 2.1.1.6.2 Frequentative

Any expression of time that is an NP can take the postposed modifier *doro* 'all, every' to become frequentative. This is most commonly done with times of day or days of the week, as in (509).

(509)  a        tɛ̃nɛ      doro
       ART.   Monday   all
       'every Monday'

## 2.1.1.6.3 Punctual-future

The expressions 'two hours from now' and 'within the next two hours' in Koromfe are identical when the preposition *la* is used. This phrase is located in the normal positions for adverbs, both of which are exemplified in (510)–(511) (since otherwise, with the adverbial in the less marked sentence-final position, *jere* might be taken to have a local rather than temporal interpretation).

(510)  jere   la     wakatəma   hĩĩ          hɛ̃ŋ                      mə            bɛllaa
       here   with   hour + PL.   two   DET. NON-HUM. PL.   PRON. 1SG.   come + PROG.
       'I will come back in 2 hours.' *(Lit.:* 'Here, with these two hours I will come.*')*

(511)  mə            bɛllaa           jere   la     wakatəma   hĩĩ
       PRON. 1SG.   come + PROG.   here   with   hour + PL.   two

       hɛ̃ŋgɛ
       LONG DET. NON-HUM. PL.

       'I will come back in 2 hours.' *(Lit.:* 'I will come here with these two hours.*')*

## 2.1.1.6.4 Punctual-past

The expression 'two hours ago' can only be expressed with a subordinate adverb clause of time using *kɔ̃N*, as exemplified in (512). Note that this subordinate close has no overt subject (and thus underlines the similarity with potentially headless relative clauses introduced by *kɔ̃N*).

(512)  də                    da     wɛ̃nɛ       jere   kɔ̃m              bakɪ   lɛɛrəma
       PRON. 3SG. HUM.   past   be + DUR.   here   when (CONJ.)   make   hour + PL.

       hĩĩ
       two

       'He was here 2 hours ago.' *(Lit.:* 'He was here when (it) makes two hours.*')*

## 2.1.1.6.5 Duration

Duration is usually expressed as an adverbial bare NP, as in (513).

(513)  mə          da    tuko  ze      zenʌ        hĩĩ
       PRON. 1SG.  past  sit   there   year + PL.  two

       'I lived there for 2 years.'

## 2.1.1.6.6–7 Anterior-duration-past and anterior-duration-future

For anterior duration, both in the past and the future, a simple postpositional phrase such as *hal a tɛ̃nɛ koŋ* cannot be used; that construction is reserved for posterior duration in the past (see §2.1.1.6.8 below). Instead, a subordinate adverb clause introduced by the CONJUNCTION *hal* is used, as in (514) for the past and (515) for the future.

(514)  kãŋ           kaa    ba    tuko  halə          go                        ja
       thing + SG.    every  NEG.  sit   until (CONJ.)  PRON. 3SG. NON-HUM.  go

       tɛ          (a)              tɛ̃nɛ      koŋ
       arrive[16]  ART. (*elided*)  Monday    DET. NON-HUM. SG.

       'Nothing happened until Monday.' *(Lit.:* 'Nothing happened until it was Monday.'*)*

(515)  kãŋ           kaa    ba    tufʌʌ         halə          go
       thing + SG.    every  NEG.  sit + PROG.  until (CONJ.)  PRON. 3SG. NON-HUM.

       ja  tɛ           (a)              tɛ̃nɛ      koŋ
       go  arrive[16]   ART. (*elided*)  Monday    DET. NON-HUM. SG.

       'Nothing will happen until Monday.' *(Lit.:* 'Nothing will happen until it is Monday.'*)*

## 2.1.1.6.8 Posterior-duration-past

The preposition *hal* 'up to' is used, as in (516).

(516)  hal            a      tɛ̃nɛ      koŋ                kãŋ           kaa    ba
       until (CONJ.)  ART.   Monday    DET. NON-HUM. SG.  thing + SG.    every  NEG.

       tuko
       sit

       'Nothing has happened since Monday.'

## 2.1.1.6.9 Posterior-duration-future

There is no distinction between the expression of duration and of general posterior time in the future. For both, the preposition *la* and both of the

postpositions *dɔba (nɛ)* and *bɛllɛ nɛ* can be used for 'after', as exemplified in (517)–(521). Each of the sentences with (punctual) *bɛllaa* 'come' is also correct when *bɛllaa* is replaced by (durational) *tufʌʌ jere* 'be here'.

(517)  jere    la      (a)              tɛ̃nɛ       koŋ                          mə
       here    with    ART. (*elided*)  Monday     DET. NON-HUM. SG.   PRON. 1SG.

       bɛllaa
       come + PROG.

       'I will be here from Monday onwards.' *(Lit.:* 'Here, with this Monday I will come.*')*

(518)  daga    na             mɛ            jere    la      (a)              tɛ̃nɛ
       wait    PRON. 2PL.     PRON. 1SG.    here    with    ART. (*elided*)  Monday

       koŋ
       DET. NON-HUM. SG.

       'Expect (pl.) me here from Monday onwards.' *(Lit.:* 'Expect (pl.) me here with this Monday.*')*

(519)  mə             tufʌʌ          jere    a       tɛ̃nɛ      koŋ
       PRON. 1SG.     sit + PROG.    here    ART.    Monday    DET. NON-HUM. SG.

       bɛllɛ          nɛ
       back + SG.     at (POSTPOS.)

       'I will be here after Monday.'

(520)  mə             bɛllaa          a       tɛ̃nɛ      koŋ
       PRON. 1SG.     come + PROG.    ART.    Monday    DET. NON-HUM. SG.

       dɔba
       top (POSTPOS.)

       'I will be here after Monday.'

(521)  mə             bɛllaa          a       tɛ̃nɛ      koŋ                          bɛllɛ
       PRON. 1SG.     come + PROG.    ART.    Monday    DET. NON-HUM. SG.   back + SG.

       nɛ
       at (POSTPOS.)

       'I will be here after Monday.'

## 2.1.1.6.10 Anterior-general

Anterior-general cannot be expressed by a postposition, but can with an adverbial clause of condition used temporally, as shown in (522).

(522) mə             tuko  jere  vuugɾi  a    tɛ̃nɛ   koŋ                        ba
       PRON. 1SG.  sit   here   once   ART.  Monday  DET. NON-HUM. SG.  NEG.

       tɛɾɛ
       arrive + PAST

       'I was here once before Monday.' *(Lit.:* 'I was here once if/when Monday had
       not (yet) arrived.'*)*

### 2.1.1.6.11 Posterior-general

See §2.1.1.6.9 above.

### 2.1.1.6.12 Point in period-past

A point of time within a past period is expressed with the help of a conditional adverb clause used temporally, as shown in (523). The actual expression of time *wakatəma hĩĩ hɛ̃ŋ* 'these two hours' is ambiguous vis-à-vis past and future. The punctuality of the time-span is expressed in the verbal inflection only (here: UNINFLECTED, i.e. non-durative).

(523) də                tuko  jere  wakatəma  hĩĩ  hɛ̃(ŋ)              nɛŋ
       PRON. 3SG. HUM.  sit   here  hour + PL.   two  DET. NON-HUM. PL.  thus

       ɠonde          hɛ̃ŋɡɛ                      lɛlɛ
       leave + PAST  LONG DET. NON-HUM. PL.  only

       'He was here (some time) during the last 2 hours.' *(Lit.:* 'He was here if/when
       these two hours have passed, in these only.'*)*

### 2.1.1.6.13 Point in period-future

The construction used to express a point of time within a future period is formally identical with that for a past period (see the previous section). However, the verb of the temporally used conditional adverb clause is 'follow' (i.e. future) rather than 'leave' (i.e. past). An example is given in (524).

(524) lɛɛɾəma     hĩĩ   hɛ̃(ŋ)                 nɛŋ   dɛf(o)         hɛ̃ŋ
       hour + PL.  two  DET. NON-HUM. PL.  thus  follow + DUR.  DET. NON-HUM. PL.

       joro            mə           bɛllɪ
       in (POSTPOS.)  PRON. 1SG.  come + DUR.

       'I will return within the next 2 hours.' *(Lit.:* 'If/when the (next) two hours
       follow, within them I will return.'*)*

## 2.1.1.7 Double case-marking

Koromfe has no cases, therefore there is no double case marking as such and §2.1.1.7.1–4 are inapplicable.

## 2.1.1.8.1 Number marking nouns

## 2.1.1.8.1.1 Singular/plural

The basic number marking system (expressed by means of noun class suffixes) is one of singular vs. plural. There is no dual, trial, paucal or other system; therefore §2.1.1.8.1.2–5 are inapplicable. However, there exist nouns whose 'basic' or less marked form is a collective 'plural', from which a singulative can be formed.

Many of the diminutive nouns have a non-diminutive plural. In the pronouns and deictics there exists a diminutive singular but not a diminutive plural form.

The 'default' plural suffix -*fı*, discussed in §2.1.1.8.7 in conjunction with the plural of loan words, can always be used, if needed, to form a plural from any singular noun, even if this involves double suffixation. Such formations even occur in spontaneous speech when the speaker momentarily fails to access the correct plural form; usually my informants corrected this spontaneous new plural when they repeated the sentence.

## 2.1.1.8.2 Obligatory status of the number marking system

The number marking system is obligatory because the noun class suffixes are obligatory (except on the first noun of one unproductive type of compound noun, the N+N compound) and every noun class suffix expresses number.

Since number marking exists §2.1.1.8.3 is inapplicable.

## 2.1.1.8.4 Collective vs. distributive plural

There is no formal distinction between a collective and a distributive plural, and there are no words which have both kinds of 'plural'. The reasons for assuming a morphological category 'collective' are a) formal and b) semantic. The collectives all seem to have the same noun class suffix -*ı* (with automatic phonological variants), can form a singulative (see the next section), and most of these nouns have similar semantics, i.e. animals and other entities which are countable in principle, but normally occur in 'virtually uncountable' groups, e.g. mosquitoes, fish, ants, bees, cattle,

hair/feathers, rice, stars. Collectives are therefore also referred to as 'mass' nouns in this grammar. (See the next section for a fuller listing of forms.)

### 2.1.1.8.5 Singulatives and non-collective plurals

Singulatives exist and are quite numerous. Non-collective plurals occur only exceptionally (see below).

The normal singulative suffix is *-fɛ*. The singulative denotes a single member of a large but in principle countable group which in most cases has a COLLECTIVE plural as described in the previous section. Examples (including exceptional forms) with the suffix *-fɛ* are given in (525). I include the words *dʊfɛ* 'one' and *wũndəfe* 'finger': They are fairly rare alternatives for the words *dom* (or *gadɔm*) 'one' and *wɔ̃nə bi* 'finger' (lit. 'hand child'). The singulative suffix *-fɛ* is also the standard class suffix for languages (of which *koromfe* is the only example in (525), but compare also *frãsɛfɛ* 'French' (derived from *français* [frãsɛ]) and *mɔsəfɛ* 'Mòoré' (derived from the plural human word [mòːsé] 'Mossi').[17]

(525)    *Nouns with the singulative class suffix* -fɛ

| singular | plural | gloss |
|---|---|---|
| bɔŋfɛ | bɔmɛ | 'stake' |
| bɔ̃ɛ̃fɛ | bɔ̃ɛ̃ | 'mosquito' |
| bʊfãɛ̃fɛ | bʊfãɛ̃ | 'kind of bush' |
| buglife | buglıʌ | 'bell' |
| dɔŋfe | domi | 'snake' |
| dʊfɛ | --- | 'one' |
| garəfɛ | gara | 'kind of plant' |
| hasfɛ | hasʊ | 'broom' |
| hurəfe | hurii | 'testicle' |
| jaləfɛ | jalı | 'kind of fruit' |
| jãntrɛ / jãntəfɛ | jãnta | 'kind of grass' |
| jẽnəfɛ | jẽnɛ | 'fish' |
| jɔ̃nəfɛ | jɔ̃nɛ | 'ant' |
| joroŋ | joroi | 'pot (large)' |
| jorəfe | --- | 'pot (small)' |
| kagsɛfɛ | kagsʊ | 'bracelet of stone' |
| kɛlgɛıfɛ | kɛlgɛı | 'kind of grass' |
| kerfe | kerii | 'chain; parrot' |
| kıbfɛ | kıbı | 'creeping plant' |
| kıparfɛ | kıparı | 'pepper (fruit)' |

| singular | plural | gloss |
|---|---|---|
| kɪrfɛ | kɪrıı | 'vagina' |
| kɔfɛ | --- | 'antelope' |
| kɔ̃ɛfɛ | kɔ̃ɛ̃ | 'hair' |
| koromfe | --- | 'Koromfe' |
| lemburəfe | lemburi / lemburəfi | 'orange' |
| manəfɛ | manɛ | 'coin (5 francs)' |
| mũĩfe | mũĩ | 'rice' |
| nabtəfɛ | nabtı | 'sesame' |
| nagfɛ | naı | 'cattle' |
| nãnəfɛ | nãnɛ | 'song' |
| peŋgfe | peŋgi | 'fonio' |
| pʊfɛ | --- | 'viper' |
| saŋfɛ | samɛ | 'rib' |
| soefe / soife | soe / soi | 'pearl' |
| sʊıfe | sʊı | 'grasshopper' |
| tĩĩndoŋfe | tĩĩndomi | 'rainbow' |
| tĩĩnwɔ̃ɛ̃fɛ | tĩĩnwɔ̃ɛ̃ | 'kind of grass' |
| tife | tifeu | 'elephant' |
| tisfe | tisi | 'kind of millet' |
| tĩŋgfe | tĩŋgii | 'fly' |
| tɔrfɛ | tɔrı | 'gombo' |
| tɔ̃ɛ̃fɛ | tɔ̃ɛ̃ | 'bee' |
| tomatəfɛ | tomatı | 'tomato' |
| wɛ̃ĩfɛ / wɔ̃ɛ̃fɛ | wɛ̃ĩ / wɔ̃ɛ̃ | 'grass' |
| wũndəfe | --- | 'finger' |

Four nouns denoting (parts of) fruit or vegetables[18] have a special singulative or individuative suffix *-frɛ*, a mass singular in *-ʋ*, and an individuative plural in *-fɪ*, e.g. *bandakʋfrɛ* (SINGULAT.), *bandakʋ* (MASS), *bandakʋfɪ* (PLURAL) 'manioc'. See §2.1.1.9.1.2.5 for further details.

The nouns [bɔŋfɛ] 'stake', [doŋfe] 'snake' and [saŋfɛ] 'rib' have a distinctive phonological shape (cf. their detailed description in §3.4.3.1.2 below, along with other [ŋ]-[m] alternations) and denote long thin objects which are not obviously collective (perhaps apart from 'ribs'). They may perhaps be the remnants of a separate noun class.

Any Koromfe noun can form a plural by adding *-fɪ* to the singular: thus a singulative with the class suffix *-fɛ* has a potential 'plural suffix'

-fɛfı. However, these forms, although perfectly acceptable when formed *ad hoc*, were rejected by my informants on later questioning.

The agreement of adjectives and reference by pronouns to the plurals of the words in (525) is normally plural, but words such as *mūī* 'rice' which are more mass-like have singular agreement.

### 2.1.1.8.6 The marking of number distinctions in the noun

Number distinctions in the noun are marked by the noun class system, which is described fully in §2.1.1.9 below.

### 2.1.1.8.7 Number marking in foreign words

Foreign words in Koromfe, of which there are a fair number, came from at least French, English (via other languages first), Arabic and Mòoré. I am not in a position to judge whether there are any loans from Ful (Fulani, Fulfulde, Peul) or other geographically close languages since my knowledge of them is too small; but there are no nouns apart from those dealt with below which have obviously deviant noun class suffixes (which one would expect, considering how words from Mòoré are integrated).

### 2.1.1.8.7.1 Nouns from European languages

It is difficult to tell via what route (and therefore, in what original shape) words from European languages entered Koromfe, especially since they often came from languages with which no direct contact ever existed. However, no word from a European language has kept its original number marking. Most nouns from European languages are taken in their singular shape and form their plural with the (highly productive) 'default' suffix -fı or (slightly less productively) with -ma. However, if the noun can easily be incorporated into a native or native-like (e.g. Mòoré-like) pattern, as with *fɛnɛtrı*, where the phonetic [rı] looks like a Mòoré class suffix and so the corresponding plural suffix [a(ʋ)] is used.
Examples are given in (526).

(526)  *Nouns from European languages*

| singular | plural | gloss | putative source |
|---|---|---|---|
| aləmetʋ | aləmetəfı | 'match' | Fr. *allumette* |
| ballı | bala | 'ball' | Fr. *balle* |
| fɛnɛtrı | fɛnɛtaʋ | 'window' | Fr. *fenêtre* |

| singular | plural | gloss | putative source |
|----------|--------|-------|-----------------|
| kaləwaasa | kaləwaasʊ | 'whip' | Fr. *cravache* |
| kãndɪa | kãndɪamã | 'paraffin lamp' | ? Fr. *candélabre*[19] or Engl. *candle* |
| kʌmseli | kʌmseləmʌ | '(woman's) dress' | Fr. *camisole* |
| lamptɪrɪkɪ | (*not given*) | 'torch (electric)' | Fr. *lampe électrique* |
| lɛɛrɪ | lɛɛrəfɪ | 'clock, watch' | Fr. *l'heure* |
| mãakɛsa | mãakɛsafɪ | 'match' | Engl. *match* |
| (*as* ↑) | mãakɛsama | (*as* ↑) | (*as* ↑) |
| bãakɛsa | bãakɛsafɪ | (*as* ↑) | (*as* ↑) |
| (*as* ↑) | bãakɛsama | (*as* ↑) | (*as* ↑) |
| mɪljɔ̃ | mɪljɔ̃ma | 'million' | Fr. *million* |
| mɔntrɪ | mɔntaʊ | 'clock, watch' | Fr. *montre* |
| mɔtɔka | mɔtɔɡəsʊ | 'lorry' | Engl. *motor car*[20] |
| pɔntɪ | pɔntəfɪ | 'nail' | Fr. *point* |
| raɡjo | raɡjoma | 'radio' | Fr. *radio* |
| (*as* ↑) | raɡjofi | (*as* ↑) | (*as* ↑) |
| rɪjɔ̃ | rɪjɔ̃fɪ | 'spoke (bicycle)' | Fr. *rayon* |
| so | somʌ/sofi | 'bucket' | Fr. *seau* |
| tabrɛ | taba | 'tobacco' | Fr. *tabac* |
| tɔrsa | tɔrsafɪ | 'torch' | Fr. *torche* |
| tomatəfɛ | tomatɪ | 'tomato' | Fr. *tomate* |
| zenɔm | zenɔmma | 'young man' | Fr. *jeune homme* |

One word which retained its original plural, in a fossilized form with no corresponding singular, is English *match* (for lighting a fire). In Koromfe it has a singular form *mãakɛsa* or *bãakɛsa*, which already contains the original plural *s* of *matches*, and a plural form with the suffix *-fɪ* or *-ma* (both of which are the typical, highly productive plural suffixes given to foreign words), giving the forms *mãakɛsafɪ*, *mãakɛsama*, *bãakɛsafɪ* and *bãakɛsama*. The nearest English-speaking area (probably Ghana) is a long way from the area where Koromfe is spoken. The word also exists in Mòoré as *mákjẽsbíla* (where *bíla* is 'child (DIMIN.)'). In neither language does a variant exist without the *s* of the original English plural.

Loan words from French potentially entered Koromfe more directly; but not many French nouns have phonetically distinct singular and plural forms, and I know of no such word which entered Koromfe.

## 2.1.1.8.7.2 Nouns from Arabic

A similar pattern of adaptation can be seen in the nouns from Arabic.[21] Here, as in the previous section, it is difficult to locate the immediate source of the loans, and most of the words are identical in Mòoré and other geographically close languages. Some examples are given in (527). Note that loans from Arabic beginning with *a* account for the majority of nouns beginning with a vowel in Koromfe.

(527)  *Nouns from Arabic*

| singular | plural | gloss |
|---|---|---|
| aləbahəla | aləbahəla | 'onion, garlic' |
| alkamɪsa | alkamɪsafɪ | 'Thursday' |
| arba | arbafɪ | 'Wednesday' |
| tɛ̃nɛ | tɛ̃nɛfɪ | 'Monday' |
| sibri | (not elicited) | 'Saturday' |
| hatɪ | hatəfɪ | 'Sunday' |

## 2.1.1.8.7.3 Nouns from genetically related languages

The major genetically related source language is Mòoré, which has a system of noun classes which are very similar to those of Koromfe. Most speakers of Koromfe also speak Mòoré fluently. Nouns from Mòoré are taken over together with their class suffix, both singular and plural, and even form classes of their own, namely the -*dɪ* singular class and the -*do*, -*so* and -*sɪ* plural classes, which are absent in native Koromfe vocabulary. Some typical examples are given in (528).

(528)  *Nouns from Mòoré*[22] *(apart from the 'human class')*
       (Arranged by class: a. dɪ/a, b. gʊ/do, c. gʊ/so, d. ga/sʊ, e. ga/sɪ, f. ga/do,
       g. irregular)

|    | singular | plural | gloss |
|---|---|---|---|
| a. | bolli | bolʌu | 'kind of container' |
|    | fɛnɛtrɪ | fɛnɛtaʊ | 'window' |
|    | förɪ | föjãõ | 'marriage' |
|    | gaarɪ | gaja | 'saddle' |
|    | gʊʊrɪ | gʊja | 'cola' |
|    | jemdi | jemʌ | 'hippopotamus' |
|    | kɔndɪ | kɔna | 'guitar' |
|    | kɔ̃ɔ̃drɪ | kɔ̃ɔ̃da | 'yellow' |

203

| singular | plural | gloss |
|---|---|---|
| kʊrkʊrɪ | kʊrkʊja | 'pig' |
| lakɪrɪ | lakɪa | 'couscous' |
| margʊʊmdɪ | margʊʊma | 'sideburn' |
| salbrɪ | salba | 'bridle' |
| sãmpʊgri | sãmpʊgʌ | 'wound' |
| tʊkri | tʊkʌu | 'window' |
| tʊsrɪ | tʊsa | 'thousand' |
| wakɪrɪ | wakɪa | 'coin (5 francs)' |
| wandɪ | wanaʊ | 'turtle dove' |

b.

| singular | plural | gloss |
|---|---|---|
| gabəgʊ | gabədʊ | 'onion' |
| garəgʊ | garədʊ | 'water trough' |
| gãŋgãõgʊ | gãŋgããdʊ | 'tamtam (big)' |
| gʊʊgʊ | gʊʊdʊ | 'anvil' |
| gõʊgʊ | gõʊdʊ | 'mushroom' |
| ɟẽõgʊ | ɟẽẽdʊ | 'hunchback' |
| miisəgu | miisədu | 'thin cake' |
| ṽĩõgʊ | ṽĩĩdʊ | 'owl' |

c.

| singular | plural | gloss |
|---|---|---|
| dɔndəgʊ | dɔndəsʊ | 'long shirt' |
| dʊləgʊ | dʊləsʊʊ | 'crow' |
| gadəgʊ | gadəsʊ | 'bed' |
| widpeləgu | widpeləsu | 'stag' |

d.

| singular | plural | gloss |
|---|---|---|
| bãka | bãgsʊʊ | 'weeding' |
| daaga | daasʊ | 'market' |
| gatẽŋgarəga | gatẽŋgarəsʊ | 'spider' |
| kaləwaasa | kaləwaasʊ | 'whip' |
| karãŋa | karãsʊ | 'mask' |
| kẽẽga | kẽẽsʊ | 'blue' |
| kʊtʊlɛɛbga | kʊtʊlɛɛbsʊ | 'sling' |
| lɛʊga | lɛʊsʊ | 'hook' |
| mɔtɔka | mɔtɔgəsʊ | 'lorry'[23] |

| singular | plural | gloss |
|---|---|---|
| nadɡa | nadsʊ | 'spider' |
| nʊɡʊbĩĩŋa | nʊɡʊbĩĩsʊ | 'ring' |
| pãŋga | pããsʊ/pãĩsʊ | 'power' |
| pɛka | pɛgsʊ | 'slap' |
| pɛmpɛrga | pɛmpɛrsʊʊ | 'kind of tree' |
| tɛŋa | tɛ̃ɛ̃sʊ | 'basket' |
| tɪrga | tɪrsʊ | 'straight' |
| titiko | titiksu | 'kind of tree' |
| tɔka | tɔgsʊʊ | 'hind' |
| waaləga | waaləsʊʊ | 'kind of plaque' |
| wɛgələga | wɛgələsʊʊ | 'dry, deformed' |
| wɛɛga | weesuu | 'remains' |
| zʊləga | zʊləsʊ | 'Jula (Dioula)' |

e.

| singular | plural | gloss |
|---|---|---|
| bergʌ | bersi | 'piece' |
| dʊʊdəga | dʊʊdəsɪ | 'violin' |
| fɔɔdəga | fɔɔdəsɪ | 'ribbon' |
| gʊjaaka | gʊjaagsɪ | 'Goyave' |
| jʊka | jʊgsɪ | 'kind of shirt' |
| lɔɔga | lɔɔsɪ | 'pocket' |

f.

| singular | plural | gloss |
|---|---|---|
| gokʌ | gogədu | 'left (side)' |
| kafɪka | kafɪgdʊ | 'fan' |
| zaka | zagdʊ | 'house & yard' |

g.

| singular | plural | gloss |
|---|---|---|
| sãɪa | sãrsʊ | 'filed tooth' |

The 'guest' plural suffixes -dʊ, -sʊ and -sɪ correspond genetically to the Koromfe suffix -ɪ. It seems that -sʊ is an innovation of the northern (Yadre) Mòoré variety, corresponding to southern -sɪ. I know of no Mòoré loans that have gone into the native Koromfe -ɪ plural class.

The -dɪ singular class is particularly interesting, since the genetically equivalent native Koromfe suffix -dɛ is phonetically very close,[24] and the

corresponding plural class is -*a* in both languages. Nevertheless, there are only few Mòoré borrowings like *kɔ̃brɛ* 'bone' (cf. native Koromfe *kʊbrɛ* 'bone') that have gone into the -*dɛ* singular class in Koromfe; most of them have kept their original -*dɪ* (with its various phonetic realizations of the *d*, as described in §2.1.1.9.1.2 below for native Koromfe words).

Only very few nouns in the 'human class' have been loaned from Mòoré; these have the singular suffix -*a* and plural suffix -*ba*, which is impossible in this combination for a native Koromfe word (which can have either -*ɔ* with -*ba* or -*a* with -*ma* — cf. §2.1.1.9.1 below). Two examples are given in (529).

(529) *Nouns from Mòoré in the 'human class'*

| singular | plural | gloss |
|----------|--------|-------|
| bʊrəkɪna | bʊrəkɪmba | 'freed slave; noble' |
| zala | zaləba | 'Touareg' |

### 2.1.1.9 Noun classes

### 2.1.1.9.1 The noun class suffixes

The noun class membership is lexically associated to the noun (or nominal adjective) to which the class marker is suffixed. This means that a single word stem normally has only two inflectional forms (for singular and plural), or sometimes only one (idiosyncratically for some words, systematically for some of the classes described below). Occasionally, a word also has a diminutive singular form and, rarely, even a diminutive plural.

The phonological shape of the class suffixes is either CV or V, i.e. never more than one syllable[25] (in contrast with Mòoré, where at least -*rãmba* is disyllabic).

The *ɔ/ba* 'human class' and the *gʊ/ɪ* 'basic non-human class' are also used to derive (regularly and productively) agent and instrument nouns from (the DURATIVE stem of) verbs, though with a phonetically heavier version of the -*ɪ* suffix, namely -*hĩ* (which is never found on a non-derived noun). In addition, there exists a singular 'local' suffix -*fa* which can only be suffixed to (DURATIVE stems of) verbs, and produces a noun with the meaning 'place where X happens', where X is the meaning of the verb. Such words behave syntactically as singular nouns, and even permit the formation of a plural by the addition of -*fɪ*. For the derivation on nouns from verbs, see §2.2.1.2 below.

This situation has two interesting consequences:

a) Apart from the phonetic shape of the -*hĩ* suffix just mentioned, there are no morphemes in Koromfe which have the function of deriving an agent or instrument noun from a verb; this is done by the noun class suffixes alone.

b) The 'human class' is greatly impoverished if the agent nouns are excluded; and those nouns which it does contain are often phonologically or morphologically irregular (see the sub-sections of §2.1.1.9.1.1 below).

The individual noun classes are described in the following sub-sections; note that although most nouns have the 'matching' singular-plural suffix pair as described below, idiosyncratically some nouns belong to different classes in singular and plural. (For discussion, see §2.1.1.9.2 below.) Also a single, very frequent noun in my corpus is irregular: *kãŋ* 'thing', PL. *hãũma*.[26]

Apart from the productive plural suffixes -*fi* and -*ma*, which are used with loan words, I think that none of the suffixes dealt with below is productive. Given that the number of verbs in the language is finite and easily susceptible to enlargement, even the completely regular formations such as the agent, instrument and locative suffixes are not, strictly speaking, productive, even though their structure is perfectly transparent and analysable for the speaker/hearer. In the following sub-sections I will therefore have nothing further to say about the productivity of the suffixes.

In the following sub-sections, first the four major classes *ɔ*/ba, *gʊ*/*ɪ*, *dɛ*/*a* and *ga*/*nɪ* are described, which account for well over half the simplex nouns in my corpus. Then the remaining classes follow in no particular order.

ATR vowel harmony is obligatory for all the suffixes described in the following sub-sections, as it always is within the phonological word.

### 2.1.1.9.1.1 The 'human class' ɔ/ba

This class has the singular suffix -*ɔ* and plural suffix -*ba*. One small group of nouns (mainly kinship terms) has a variant *∅*/ma (or *a*/(*a*)*ma*) and is dealt with in §2.1.1.9.1.2 below.

The plural suffix -*ba* is identical with the 3rd person plural human personal pronoun *ba*, but the singular is nothing like the 3rd person singular human personal pronoun *dɪ*.[27]

*2.1.1.9.1.1.1 Class ɔ/ba, sub-type ɔ/ba*

(530)   *Nouns in the ɔ/ba class with singular* [ɔ] *and plural* [ba]

|   | singular | plural | gloss |
|---|---|---|---|
| a. | allɔ/hallɔ/jallɔ | alləba/halləba/jalləba | 'enemy'[28] |
|   | arıɔ/jarıɔ | arba/jarba | 'blacksmith'[28] |
|   | buno | bunombʌ | 'thief'[29] |
|   | dono | dombʌ | 'comrade' |
|   | jɔ̃ɔ̃ndɔ | jɔ̃ɔ̃ndəba | 'elder sibling' |
|   | seno | senəbʌ | 'young' |
|   | sɔbɔ | sɔpa | 'hunter'[29] |
|   | sɔrɔ | sɔrəba | 'other' |

|   | singular | plural | gloss |
|---|---|---|---|
| b. | bɛrıɔ | bɛrəba | 'Berba'[30] |
|   | fo | foba | 'person'[31] |
|   | jɔ | jıɪba | 'chief' |
|   | kaɪm̃ɔ | kaɪmbaʊ | 'old person' |
|   | koromdo | korombʌ | 'Koromba'[32] |

This is the major sub-type of the class, with the suffixes -ɔ (SG.) and -ba (PL.) and their respective harmonic phonetic variants [o] and [bʌ] depending on the ATR harmony class of the noun stem (cf. §3.2.6.4 below on vowel harmony).[33] The examples given above are non-derived nouns, of which many (especially those in 'b') are irregular (in sharp contrast with the complete regularity of agent nouns derived from verbs). The assimilation of stem-final nasals in *bunombʌ* and *dombʌ* (cf. unassimilated *senəba*), and of *b+b* to *p* in *sɔpa* do not occur in any other regular nouns of this class (though there exists *zakʊ*, PL. *zapa* 'silly person' with a plural form parallel to *sɔpa*).

The adjective *sɔrɔ* 'other' is the only declinable nominal adjective in Koromfe: it also has a non-human variant in the *gʊ/ı* 'basic non-human' class and agrees with its head-noun or referent for HUMANNESS as well as NUMBER.

Although they are not nouns, for completeness' sake I must mention here that the HUMAN DETERMINERS *hoŋ* (SG.) and *bɛŋ* (PL.) and their respective long forms *hoŋgo* and *bɛŋgɛ* show a clear phonological resemblance with the class suffixes -ɔ and -ba. The initial *h* of *hoŋ* probably

arose to avoid an initial vowel as in *allɔ/hallɔ*. The HUMAN DEICTIC *nandı*
(SG.), *namba* (PL.) and the question adjective *ndeendı* (SG.), *ndeemba* (PL.)
have a plural suffix *ba*, but the singular *-dı* clearly comes from the 3rd
person singular human pronoun *dı*.

*2.1.1.9.1.1.2 Class ɔ/ba, sub-type singular [a] and plural [ama]/[ammã]*

(531)    *Nouns in the ɔ/ba class with singular [a] and plural [ama]*

|   | singular | plural | gloss |
|---|---|---|---|
| a. | bana | banama | 'maternal uncle' |
|   | bara | barama | 'husband' |
|   | kaka | kakama | 'grandparent' |
|   | kʊsa | kʊsama | 'lover, fiancé(e)' |

|   | singular | plural | gloss |
|---|---|---|---|
| b. | jã | jãmmã | 'mother' |
|   | saa | sammã | 'master, owner'[34] |
|   | sa | sammã | 'father' |

The nouns of this sub-class could be considered to have the suffixes *-a*
(SG.) and *-ama* (PL.) or 'zero' and *-ma*. Neither is completely satisfactory.
The words in part 'b' of (531) are the only ones in Koromfe that have this
pattern (with a double *m* in the plural), and I can offer no explanation why
this happens. There is no such process anywhere else in the language.

The plural suffix *-ma* also occurs on loan words with singulars ending
in vowels other than *a* (e.g. *ragjo*, PL. *ragjoma* 'radio') — cf. §2.1.1.8.7.1
above.

*2.1.1.9.1.2 The 'basic non-human' class gʊ/ı*

This class has the singular suffix *-gʊ* and the plural suffix *-ı*. However,
there is a fairly large number of nouns with *-gʊ* in the singular and some
other class suffix in the plural (especially *-nı* of the diminutive class
*ga/nı*). Recall also that there is a large number of loan words from Mòoré
with the *-gʊ* singular suffix and some non-native plural suffix (cf. section
§2.1.1.8.7.3 above).

I regard this class as being the basic non-human class because it uses
the morphemes *gʊ* and *ı/hī* which are also found in the pronouns system,

in the derivation of deverbal instrument nouns and in other places. The *dɛ/a* class, though larger, plays no further rôle in the language.[35]

The range of phonetic realizations of the *-gʋ* suffix is [gʋ], [kʋ], [Vŋ] (where V is a non-high harmonized vowel), plus the corresponding ATR-harmonized variants;[36] the plural suffix *-ɪ* has no unexpected phonetic realizations apart from the usual (and quite regular) vowel harmony, nasalization and post-nasal lowering to a mid vowel *-ɛ*.

The suffixes *-gʋ* and *-ɪ* are identical with the 3rd person non-human personal pronouns *gʋ* (SG.) and *ɪ* (PL.) in their prefix form. The suffix form of the pronoun is identical in the SINGULAR, but in the PLURAL is *hɛ̃* (which is the PLURAL suffix of the instrument nouns derived from verbs, and probably historically identical with *ɪ*). Note, however, that the non-human pronouns *gʋ*, *ɪ* and *hɛ̃* are used to refer to **all** non-human nouns, even if the noun itself has a different class suffix.

Again, for completeness' sake I must also mention the clear phonological resemblance between these class suffixes and a) the NON-HUMAN DETERMINERS *koŋ* (SG.) and *hɛ̃ŋ* (PL.) (with their respective long forms *koŋgo* and *hɛ̃ŋgɛ*) and b) the NON-HUMAN DEICTIC *naŋgʋ* (SG.), *nahɛ̃* (PL.) and the question adjective *ndeeŋgʋ* (SG.), *ndeehɛ̃* (PL.).

### 2.1.1.9.1.2.1 Class gʋ/ɪ, sub-type singular [gʋ]

(532)    *Nouns in the* gʋ/ɪ *class with singular* [gʋ]

| singular | plural | gloss |
|----------|--------|-------|
| bɪrgʋ | bɪrɪɪ | 'second self' |
| komgu | komi | 'kind of tree' |
| kʋrgʋ | kʋrɪɪ | 'handle' |
| lʌmporgu | lʌmpori | 'kind of tree' |
| margʋ | marɪɪ | 'cave' |
| mɛrgʋ | mɛrɪɪ | 'cold' |
| mɔ̃mgʋ | mɔ̃mɛ | 'eel' |
| pʋgu | poi | 'claw' |
| sãnəgʋ | sãnɛ̃ɛ̃ | 'fibre (from bark)' |

In words of this type the *-gʋ* suffix is realized phonetically as [gʋ] or [gu] according to the ATR harmony class of the word stem. The *-ɪ* suffix is realized as [ɪ] or [i] when it immediately follows a non-nasal consonants and [ɛ] or [ɛ̃][37] when the preceding consonant is nasal. In some words (of

this sub-type only) the vowel seems to be lengthened; I do not know why.[38] A lengthened realization also occurs in the -*u*/*ıı* class with (phonetically) the same suffix; otherwise there are no long vowels in native Koromfe noun class suffixes (though there are in some 'guest' plural classes of words loaned from Mòoré).

### 2.1.1.9.1.2.2 Class ɡʊ/ɪ, sub-type singular [kʊ]

(533)    *Nouns in the* ɡʊ/ɪ *class with singular* [kʊ] *and* [ŋɡʊ]

| singular | plural | gloss |
|----------|--------|-------|
| fɛkʊ | fɛbɪ | 'tree' |
| kɛkʊ | kɛbɪ | 'field' |
| nʊŋɡʊ | nʊmɪ | 'millstone' |
| pɔŋɡʊ | pɔmɛ | 'mat' |

The words of this sub-type have a phonologically assimilated singular form, with [kʊ] as the realization of lexical /b+ɡʊ/ (i.e. with the stem consonant fused to the suffix consonant)[39] and [ŋɡʊ] as the realization of /m+ɡʊ/. The non-assimilating words of the [ɡʊ]-singular type such as *komgu* and *mɔ̃mgʊ* (also the only such words in my corpus) may well be loans from Mòoré, since a) names of flora and fauna have a far higher percentage of loans than average, and b) the nasal vowel of *mɔ̃mgʊ* does not trigger progressive nasalization — a widespread process in Koromfe which does not exist in Mòoré.

By coincidence, there are no native Koromfe words in my corpus which have phonetic [kʊ] resulting from the fusion of *ɡ+ɡ* **and** the regular plural suffix; however, such [kʊ] realizations of the *ɡʊ* suffix are very widespread, both in Koromfe and in Mòoré, e.g. the native Koromfe word *bʊkʊ*, PL. *bʊgnɛ* 'shoulder' and the Mòoré loan *makʊ*, PL. *magdʊ* 'rectangular house'.

*2.1.1.9.1.2.3 Class ɡʊ/ɪ, sub-type singular [Vŋ] and plural [Vɪ] (where V is a copy of the first vowel of the stem)*

(534)   *Nouns in the ɡʊ/ɪ class with singular [Vŋ] and plural [Vɪ] (where V is a copy of the first vowel of the stem)*

| singular | plural | gloss |
|----------|--------|-------|
| bɔndɔŋ | bɔndɔɪ | 'mortar' |
| joroŋ | joroi | 'large pot' |
| kotoŋ | kotoi | 'chest' |
| tɔnɔ̃ŋ | tɔnɔ̃ɪ | 'skin' |
| toroŋ | toroi | 'pipe' |

The words of this and the next two types described below have in common the final [ŋ] in their singular form. Postponing for the moment the question of the phonetic shape of the suffix, let us first consider the shape of the word stems. Words of this sub-type seem to have a $CV_iCV_i$ stem shape (where $V_i$ indicates identical vowels), and therefore have a vowel before the plural suffix -ɪ. I assume that the colour/melody of this second vowel is entirely harmonically determined (cf. Rennison, 1993; 1995).

In many noun classes the suffix consonant is nasalized after a phonetically realized 'full' vowel (i.e. excluding schwa). This nasalization never occurs in Mòoré. The peculiarity of the -ɡʊ suffix is that when this happens the final ʊ drops (without exception — word final [ŋʊ] does not exist in Koromfe). This does not happen when a -ɡa suffix is nasalized; there the phonetic realization is [ŋa] — cf. §2.1.1.9.1.4.2 below.

*2.1.1.9.1.2.4 Class ɡʊ/ɪ, sub-type singular [Vŋ] and plural [ɪ] (where V is a copy of the first vowel of the stem)*

(535)   *Nouns in the ɡʊ/ɪ class with singular [Vŋ] and plural [ɪ] (where V is a copy of the first vowel of the stem)*

| singular | plural | gloss |
|----------|--------|-------|
| bɔ̃nɔ̃ŋ | bɔ̃nɛ | 'goat' |
| dãŋ | dãɪ̃ | 'house' |
| wɔ̃nɔ̃ŋ | wɔ̃nɛ | 'hen' |

For details of the shape of the singular, see §2.1.1.9.1.2.3 above.

Nouns of this sub-type, in contrast with the previous sub-type (and with the sole exception of *dãŋ* 'house', which is unique in this class), seem

to have only a CVC stem, i.e. the last vowel of the singular form is not present in the plural. For independent reasons, a 'vowel epenthesis' process must be assumed (cf. Rennison, 1993 and §3.2.6.4.2 below) which ensures that the second phonetic vowel of the singulars is present, but which does not 'insert' a vowel in the plural. This process does not affect *dãŋ* 'house', which has the only monosyllabic (CV) stem in these 3 sub-types of the *gʊ/ɩ* class.

*2.1.1.9.1.2.5 Class* gʊ/ɩ, *sub-type singular* [Vŋ] *and plural* [ĩã] *(where V is a copy of the first vowel of the stem)*

(536)    *Nouns in the* gʊ/ɩ *class with singular* [Vŋ] *and plural* [ĩã] *(where V is a copy of the first vowel of the stem)*

| singular | plural | gloss |
|---|---|---|
| bĩnĩŋ | bĩnĩʌ̃ | 'black' |
| feleŋ / feleŋʌ | felẽʌ̃ / felejʌ̃ | 'new' |
| hãnãŋ | hãnĩã | 'good' |
| pɩsɩŋ | pɩsɩa | 'kind of tree'[40] |
| põnõŋ | põnĩã | 'white' |
| wãnãŋ | wãnĩã | 'spotted' |

For details of the shape of the singular, see §2.1.1.9.1.2.3 above.

The words of this sub-type have a plural suffix of the shape -*ĩã*. Apart from *pɩsɩŋ* all these words are nominal adjectives, and there are no nominal adjectives in any other sub-type of the *gʊ/ɩ* class. I therefore assume that this is an independent plural class suffix which is now used obligatorily for nominal adjectives and optionally for other nouns (especially names of trees).[41]

*2.1.1.9.1.3 The* dɛ/a *class*

This class is probably the largest in Koromfe, and certainly the one whose class suffix has the widest range of phonetic realizations. In contrast with the *ɔ/ba* and the *gʊ/ɩ* classes, there is no regular derivation from verbs to this noun class; a few verbs such as *jomʌm* 'follow', *zɔgɔlam* 'climb' have a singular action noun with a -*dɛ* suffix (i.e. *jomde* 'hunting', *zɔgrɛ* 'climbing').[42]

A second point of contrast with the *gʊ/ɩ* class is that there are far fewer nouns with a singular in this class and a plural in a different class. This is

213

probably (at least in part) due to the fact that in Mòoré the corresponding noun class has the same plural morpheme (usually -*a*), while the Mòoré nouns with a singular in -*gu* have a variety of plural suffixes, none of which are -*ɪ*.

Since the phonetic variants of the singular and plural are largely independent of one another, in the following sub-sections I deal first with the variants of the singular suffix, then with those of the plural suffix.

The phonetic variants of the singular suffix -*dɛ* are given in (537) below. With the exception of some unresolved problems about when nasalization of *d* to *n* occurs, these phonetic realizations are phonologically completely regular and the variants are therefore in complementary distribution.

(537)   *The phonetic variants of the singular class suffix -*dɛ* with one example each (disregarding ATR harmony)*

| variant | singular | plural | gloss |
|---------|----------|--------|-------|
| [dɛ] | gʊmdɛ | gʊma | 'piece' |
| [lɛ] | sʊllɛ | sʊla | 'eagle' |
| [nɛ] | jẽmmənɛ | jẽmmã | 'tooth' |
| [ndɛ] | hẽmẽndɛ | hẽmẽjã | 'crocodile' |
| [rɛ] | jabrɛ | jaba | 'march' |
| [tɛ][43] | hʊtɛ | hʊra | 'soul' |

The phonetic variants of the plural suffix -*a* are given in (538) below. For many nouns (perhaps all) the variant with a final *ʊ* is a free variant of the one without. The phonetic *ɪ* at the beginning of the suffix, on the other hand, is usually obligatory, if it occurs at all. The suffix vowels are nasal if the (first) stem vowel is nasal. ATR vowel harmony is obligatory here, as always within the phonological word.

The mid vowel variant [o] occurs optionally in place of the **tense** (ATR) low vowel [ʌ] only — it is impossible to substitute [ɔ] for [a]. This substitution is possible with all suffixes containing a tense low vowel (e.g. the DIMINUTIVE SINGULAR noun class suffix -*ga*, the PROGRESSIVE verb suffix -*daa* or -*faa*, giving the phonetic variants [go], [doo], [foo] respectively — the first two also with variations in the realization of the consonant).

(538)   *The phonetic variants of the plural class suffix -a with one example each*
        *(disregarding ATR harmony, where possible)*

| variant | singular | plural | gloss |
|---------|----------|--------|-------|
| [a] | sʊllɛ | sʊla | 'eagle' |
| [ã] | ɟẽmmənɛ | ɟẽmmã | 'tooth' |
| [ɟã] | hẽmẽndɛ | hẽmẽɟã | 'crocodile' |
| [aʊ] | gɛndrɛ | gɛndaʊ | 'distaff' |
| [jʌu] | were | wejʌu | 'fig-tree' |
| [ja] | wɪrɛ | wɪja | 'rainy season' |
| [ɪa] | dɪgrɛ | dɪgɪa | 'right hand' |
| [ɪ̃ã] | sẽmnɛ | sẽmɪ̃ã | 'kind of tree' |
| [o] | gulle | gulo/gulʌ | 'big drum' |

## 2.1.1.9.1.3.1 Class dɛ/a, sub-type singular [dɛ]

(539)   *Nouns in the dɛ/a class with singular [dɛ]*

| | singular | plural | gloss |
|---|----------|--------|-------|
| a. | dʊmdɛ | dʊma | 'lion' |
| | gomde | gomʌu | 'box' |
| | hulomde | hulomʌ | 'marrow' |
| | ɟĩmde | ɟĩmʌu | 'younger sibling' |
| | logomde | logomʌ | 'camel' |
| | pɔ̃mdɛ | pɔ̃ma | 'nose' |
| | samdɛ | sama | 'arrow' |
| | sɛmdɛ | sɛma | 'fence' |
| | sɛrəgɛmdɛ | sɛrəgɛma | 'story' |
| | sɔmdɛ | sɔma | 'red' |
| | tɛmdɛ | tɛma | 'beard' |

| | singular | plural | gloss |
|---|----------|--------|-------|
| b. | bɪndɛ | bɪna | 'heart' |
| | bɔ̃ndɛ | bɔ̃na | 'barn' |
| | bʊndɛ | bʊna | 'barn (millet)' |
| | hɔ̃ndɛ | hɔ̃na | 'hoe' |
| | honde | honʌ | 'bean' |

| singular | plural | gloss |
|---|---|---|
| j̃ãndɛ | j̃ãna | 'millet' |
| mɛndɛ | mɛna | 'combat group' |
| sɛndɛ | sɛna | 'altar' |
| zende | zenʌ | 'year' |

|  | singular | plural | gloss |
|---|---|---|---|
| c. | geŋde | geŋʌ | 'pebble' |
|  | tɔŋdɛ | tɔŋa | 'hole' |
|  | zɛŋdɛ | zɛŋa | 'upper arm' |
|  | zɔŋdɛ | zɔŋa | 'space' |

|  | singular | plural | gloss |
|---|---|---|---|
| d. | firede | --- | 'dust' |
|  | werede | --- | 'poverty' |

The 'real' phonetic variant [dɛ] occurs only after a nasal stop consonant. In contrast with the verbal DURATIVE suffix *-d* it does not assimilate to the place of articulation of that nasal stop. In the 'a' examples in (539) the preceding nasal stop is (bi-)labial and in the 'c' examples it is velar. There are no other places of articulation for nasal stops. Note also that (539a.-c.) contains words whose stem vowels are nasal; they do not nasalize the *d* of the suffix (cf. §2.1.1.9.1.3.3 below).

The two words given in (539d.) are the only two nouns of this class in my corpus which have a phonetic [d] between two vowels — a sound which results from the (perfectly regular) dissimilation of a lexical *l* when the preceding onset is phonetic [r] (=lexical *d*). Because this is really an *l*, the (539d.) forms are dealt with in the next section together with the non-dissimilated *l*'s.

### 2.1.1.9.1.3.2 Class dɛ/a, sub-type singular [lɛ]

(540)  *Nouns in the* dɛ/a *class with singular* [lɛ]

|  | singular | plural | gloss |
|---|---|---|---|
| a. | bɛllɛ | bɛla | 'back' |
|  | bulle | bulo | 'dam' |
|  | dɔllɛ | dɔla | 'hill' |

| singular | plural | gloss |
|----------|--------|-------|
| ɡʊbǝllɛ | ɡʊbǝla | 'mound' |
| jɪllɛ | jɪla | 'horn' |
| pallɛ | pala | 'stretcher' |
| pʊllɛ | pʊla | 'stick' |
| selle | selʌ | 'space' |

| | singular | plural | gloss |
|---|----------|--------|-------|
| b. | piselle | piselʌu | 'pile of faeces' |
| | poɡolle | poɡolʌ | 'bark' |

| | singular | plural | gloss |
|---|----------|--------|-------|
| c. | deŋgele | deŋgelʌ | 'open area' |
| | sembele | sembelʌ | 'piece' |

| | singular | plural | gloss |
|---|----------|--------|-------|
| d. | firede | --- | 'dust'[44] |
| | werede | --- | 'poverty' |

The phonetic variant [lɛ] occurs only after a stem-final *l*. When this *l* follows the vowel of the second phonetic syllable, one of the *l*'s drops in the 'c' forms of (540) but is preserved in the 'b' forms. These four words are the only such ones in my corpus,[45] but the behaviour of the two words in (540d.) seems to confirm that (540c.) is the regular case.

The form [deŋgele] in (540c.) has a (simplified) lexical representation like *deŋgVl+de* (where *V* stands for an assimilated 'epenthetic' vowel) and undergoes simplification of the *l+d* sequence to a single *l* (if one believes in derivations, then perhaps via an intermediate assimilation of the suffix consonant to *deŋgVl+le*). The 'd' forms undergo, additionally, the (phonologically completely regular and exceptionless) dissimilation of lexical *l* to phonetic [d] (just like the verb forms described in §3.4.1.2 below and dealt with in detail in Rennison, 1993). Note that forms such as *firele* or *firelle* with an *rVl* sequence are phonologically impossible in Koromfe. I therefore assume that *firede* is lexically (roughly) *fidVl+de* (cf. *deŋgVl+de*), and that the extremely unusual phonetic sequence *VdV* reflects the relative markedness of the two words in (540d.).

### 2.1.1.9.1.3.3 Class dɛ/a, sub-type singular [nɛ]

(541)    *Nouns in the* dɛ/a *class with singular* [nɛ]

a.

| singular | plural | gloss |
|---|---|---|
| dumməne | dummʌ | 'knee' |
| hamnɛ | ------ | 'fire'[46] |
| hɔmnɛ | ------ | 'intelligence'[46] |
| j̃ẽmmənɛ | j̃ẽmmã | 'tooth' |
| sẽmnɛ | sẽmĩã | 'kind of tree' |

b.

| singular | plural | gloss |
|---|---|---|
| konne | konʌu | 'door' |
| kunne | kunʌ | 'village' |

c.

| singular | plural | gloss |
|---|---|---|
| dãĩnɛ | dãjã | 'wood' |
| dũĩne | dũjã | 'kind of nut' |
| hɔ̃ĩne | hɔ̃jã | 'penis' |
| hõĩne | hõjã | 'caterpillar' |
| hũĩne | hũjʌ̃ | 'caterpillar' |
| kɔ̃ĩne | kɔ̃jã | 'squirrel' |
| kɔ̃ɔ̃nɛ | kɔ̃ɔ̃jã | 'old' |
| dɔ̃ĩnɛ | dɔ̃jã | 'fasting' |
| sɔ̃ɔ̃nɛ | sɔ̃ɔ̃jã | 'period' |
| w̃ɔ̃nɛ | w̃ɔ̃jã | 'hyena' |

d.

| singular | plural | gloss |
|---|---|---|
| nɛnɛ / nẽnɛ | nẽjã | 'mouth' |

The number of words with the phonetic variant [nɛ] is quite small; most of the ones in my corpus are listed here. Apart from the single word in 'd'. (whose vowel might nevertheless be nasal — though not in compoundsa),[47] the segment preceding the class suffix is nasal (discounting schwa).[48] However, although this is a necessary condition for the appearance of the suffix variant [nɛ], it is not a sufficient one when a nasal **consonant** precedes the suffix, since there exist words like *dʊmdɛ*, PL. *dʊma* 'lion' and *pɔ̃mdɛ*, PL. *pɔ̃ma* 'nose' (cf. §2.1.1.9.1.3.1 above on the [dɛ]

variant of this suffix). But a nasal **vowel** preceding the suffix (as in the 'c' forms of (541)) is a sufficient condition to require the variant [nɛ] when the word stem is phonetically monosyllabic; no other phonetic variant of the suffix can be used in that context. When the word stem is disyllabic, the suffix variant [ndɛ] is used (cf. §2.1.1.9.1.3.4 below, i.e. the next section).

*2.1.1.9.1.3.4 Class* dɛ/a, *sub-type singular* [ndɛ]

(542)    *Nouns in the* dɛ/a *class with singular* [ndɛ]

| singular | plural | gloss |
|---|---|---|
| hɛ̃mɛ̃ndɛ | hɛ̃mɛ̃jã | 'crocodile' |
| tɔ̃mɔ̃ndɛ | tɔ̃mɔ̃jã | 'large ant' |

This sub-type comprises only very few words; my corpus contains only the two given in (542). The word stem has the syllable structure $C\tilde{V}_iC\tilde{V}_i$, where the two vowels are a) nasal and b) identical (i.e. the second is harmonized to the first, therefore the second is 'epenthetic'). Despite their rarity, these words are completely regular — i.e. there are no $CV_iCV_i$ stems which take a different suffix variant. Moreover, the [nd] reflex of *d* is phonologically very similar to the DURATIVE and PROGRESSIVE verb forms with the shape $C\tilde{V}C\tilde{V}l$ when the vowel is nasal (cf. §3.4.1.1.2.2 below).

*2.1.1.9.1.3.5 Class* dɛ/a, *sub-type singular* [rɛ]

(543)    *Nouns in the* dɛ/a *class with singular* [rɛ]

|   | singular | plural | gloss |
|---|---|---|---|
| a. | debre | debiʌ | 'tamtam' |
|   | dɛgrɛ | dɛgɪa | 'accusation' |
|   | dɪgrɛ | dɪgɪa | 'right hand' |
|   | gɪbrɛ | gɪba | 'hatchet' |
|   | gʊbrɛ | gʊba | 'pond' |
|   | hubre | hubʌ | 'ditch' |
|   | lugre | lugʌ | 'side' |
|   | nɛbrɛ | nɛba | 'pea' |
|   | segre | segiʌ | 'name' |

| singular | plural | gloss |
|----------|--------|-------|
| subre | subo | 'pot' |
| tagrɛ | tagɪa | 'pond' |
| togre | togiʌ | 'baobab' |

b.

| singular | plural | gloss |
|----------|--------|-------|
| dĩŋgre | dĩŋgʌ | 'kind of bush' |
| gɛndrɛ | gɛndaʊ | 'distaff' |
| hɔ̃mbrɛ | hɔ̃mba | 'fig tree' |
| hɔndrɛ | hɔnda | 'hoe' |
| kandrɛ | kanda | 'hail' |
| kɛŋgre | kɛŋgʌ | 'edge' |
| lɔ̃ŋgrɛ | lɔ̃ŋga | 'shoe' |
| sondre | sondʌ | 'egg' |
| tembre | tembʌ | 'brick' |
| zoŋgre | zoŋgʌ | 'wing' |

c.

| singular | plural | gloss |
|----------|--------|-------|
| demsəre | demsʌ | 'ankle' |
| dɔfrɛ | dɔfɪa | 'God' |
| gamsəre | gamsa | 'skipping rope' |
| kesre | kesiʌ | 'size' |
| tɛfrɛ | tɛfa | 'cotton fibre' |

d.

| singular | plural | gloss |
|----------|--------|-------|
| bollre | bollʌu | 'hole' |
| hullre | hullʌ | 'gutter' |

e.

| singular | plural | gloss |
|----------|--------|-------|
| hubtre | hubtʌ | 'communal work' |
| j̃ãntrɛ | j̃ãnta | 'kind of grass ' |
| kutre | kutʌ | 'root' |
| sɛkrɛ | sɛka | 'half' |

|  | singular | plural | gloss |
|---|---|---|---|
| f. | dabɛɛrɛ | dabɛɛja | 'camp' |
|  | dɪmbɛrɛ | dɪmbɛja | 'giant' |
|  | dɔɔrɛ | dɔɔja | 'long' |
|  | gɪgaarɛ | gɪgaaja | 'vulture' |
|  | koire | kojʌ | 'bracelet' |
|  | pʊpaarɛ | pʊpaaja | 'kind of grass ' |
|  | were | wejʌu | 'fig-tree' |
|  | wɪrɛ | wɪja | 'rainy season' |

The phonetic realization [rɛ] is probably the most common one. It occurs whenever the phonological environments required by the other sub-types described above and below are not present. The examples in (543) are grouped according to the consonant(s) preceding the [rɛ]: a. single voiced (lax) oral stops, b. nasal+oral homorganic stop sequence, c. fricative, d. lateral, e. voiceless (tense) oral stop, and f. vowel.

The common phonological environment can therefore be summarized as follows: the preceding consonant is not nasal and is not a single inter-vocalic *l* or *d*.[49] This means that [rɛ] can, and indeed must occur after geminate *ll* (e.g. *bollre* in (543d.)),[50] after an *nd* sequence (e.g. *gendrɛ* in (543b.))[51] and after *t*,[52] possibly preceded by other consonants (e.g. *kutre*, *hubtre*, etc. in (543d.)).

One special type of noun with phonetic final [rɛ] is that of the singu-latives/diminutives of four 'fruit and vegetable' nouns given in (544).[53] These four words cannot form an 'individual plural' by replacing the [rɛ] of the 'individual singular' with [a]. Indeed, it seems that the [f] is a part of the suffix (and perhaps historically related to the fact that all these words have a back rounded stem vowel before the [f]). Aside from their having a *-frɛ* form, these words (apart from *kogo*) fit the regular pattern of the *ʊ/fɪ* class described in §2.1.1.9.1.5 below.

(544)    *Nouns in the* dɛ/a *class with singular (individual)* [frɛ]

| singular (individual/ diminutive) | singular (and mass) | plural (individual) | gloss |
|---|---|---|---|
| bandakʊfrɛ | bandakʊ | bandakʊfɪ | 'manioc' |
| fɔ̃frɛ | fɔ̃ | fɔ̃fɪ | 'leaf' |
| kofre | kogo | kofi | 'millet stalk' |
| wɔfrɛ | wɔʊ | wɔfɪ | 'thorn-bush' |

## 2.1.1.9.1.3.6 Class dɛ/a, sub-type singular [tɛ]

(545)   *Nouns in the* dɛ/a *class with singular* [tɛ]

| singular | plural | gloss |
|---|---|---|
| bɛtɛ | bɛra | 'male (animal)' |
| bɪtɛ | bɪra | 'frog' |
| datɛ | dara | 'chest' |
| dɔtɛ | dɔra | 'cloud' |
| dʊtɛ | dʊra | 'vagina' |
| fite | firʌ | 'flower' |
| gete | gerʌ | 'forked stick' |
| gote | gorʌ | 'stream' |

The nouns in (545) all have a lexical stem of the shape *CVd*. In combination with the singular suffix *-dɛ*, the phonetic result of *CVd+ dɛ* is *CVtɛ*. With the plural suffix *-a*, on the other hand, the single *d* of the noun stem is realized phonetically as [r]. These phonological processes are perfectly regular and exceptionless in Koromfe, with the exception of the one loan word *gɛdrɛ* mentioned in footnote 49 in the previous section (§2.1.1.9.1.3.5).

One interesting regularity about this phonetic sub-type of the *-dɛ* singular suffix is that the stem vowel of these words is always oral in native vocabulary; only the two loans *kãtɛ*, PL. *kãra* 'forest' and *pãtɛ*, PL. *pãnɛ* 'toad' (the latter with an irregular plural) have a nasal stem vowel together with a [t] putatively resulting from the fusion of *d+ d*.

## 2.1.1.9.1.4 The 'diminutive' class ga/nɪ

This noun class is something of a mixture because on the one hand a DIMINUTIVE can be formed from many nouns which are in other classes, in order to denote a smaller variety of that noun; such diminutives often do not have a diminutive plural, but take the plural of the 'full sized' noun. But there also exist many nouns in this class which have no related noun in any other class. Even so, the nouns in this class tend to denote smaller-than-usual things. Note that the noun class with the same suffix *-ga* in Mòoré has no diminutive connotation.

### 2.1.1.9.1.4.1 Class ɡa/nɪ, sub-type singular [ɡa]

(546)  *Nouns in the ɡa/nɪ class with singular [ɡa]*

| singular | plural | gloss |
|---|---|---|
| dʊmbəɡa | dʊmbənɪ | 'small piece' |
| hɔndəɡa | hɔndənɪ | 'navel' |
| jerɡʌ | jerəni | 'rabbit' |
| kutəɡʌ | kutəni | 'stool' |
| nibəɡʌ | nibəni | 'grandchild' |
| tɔbəɡa | tɔbənɛ | 'small axe' |
| waləɡa | walənɛ | 'mouse' |
| wufəɡʌ | wufəni | 'hedgehog' |

The normal pattern is shown in (546). The suffix consonant *g* occurs when preceded by a consonant (ignoring, as usual, any schwas). The vowel of the plural suffix *nɪ* is optionally lowered to mid, especially when it is lax.

### 2.1.1.9.1.4.2 Class ɡa/nɪ, sub-type singular [ŋa]

(547)  *Nouns in the ɡa/nɪ class with singular [ŋa]*

|   | singular | plural | gloss |
|---|---|---|---|
| a. | bikeŋʌ | bikeni | 'girl' |
|   | jileŋʌ | jileni | 'frog' |
|   | kifeŋʌ | kifeni | 'small calabash'[54] |
|   | kereŋkʌŋʌ / kireŋkʌŋʌ | kereŋkʌŋəne / kireŋkʌŋəne | 'spirit of the bush'[55] |

|   | singular | plural | gloss |
|---|---|---|---|
| b. | ɡɔməŋa | ɡɔmənɛ | 'tambourine' |
|   | hɛ̃məŋa | hɛ̃mənɛ | 'kind of tree' |
|   | nɔ̃məŋa | nɔ̃mənɛ | 'scorpion' |
|   | sɛ̃ŋa | sɛ̃ŋnɛ | 'backside' |
|   | vɛŋa | vɛŋənɛ | 'rain' |
|   | wɛ̃nnəŋa | wɛ̃nnənɛ | 'stopper' |

|   | singular | plural | gloss |
|---|---|---|---|
| c. | ɟɔ̃ɔ̃ŋa | ɟɔ̃ɔ̃nɛ | 'small' |

|  | singular | plural | gloss |
|---|---|---|---|
| d. | filləɲʌ | filləni | 'forked stick' |
|  | mɔsəŋa | mɔsənɛ | 'Mossi' |

With this suffix we see a pattern of consonant nasalization very similar to that of the *-gʊ* suffix of the *gʊ/ɪ* class (cf. §2.1.1.9.1.2.3–5 above). The conditioning environments (corresponding to types 'a'-'d' in (547)) are:

a. when a disyllabic word stem ends in a (harmonized, 'epenthetic') vowel the singular suffix variant [ŋa] is always found, as shown in (547a.). Strangely, no native words of this type with a back vowel exist in my corpus;[56]

b. when the immediately preceding consonant is nasal;

c. when the immediately preceding vowel is nasal;

d. unclear.[57]

*2.1.1.9.1.4.2 Class* ɡa/nɪ, *sub-type singular* [ka]

(548)　*Nouns in the* ɡa/nɪ *class with singular* [ka]

| singular | plural | gloss |
|---|---|---|
| hikʌ | hiɡni | 'partridge' |
| subkʌ | subəni | 'small pot' |
| zekʌ | zeɡni | 'louse' |

As with the *-gʊ* singular suffix described above, the *g* of the *-ga* suffix fuses with a stem-final *g* to produce phonetic [k] in the words *hikʌ* and *zekʌ* of (548). But words with a stem-final *b* do not fuse with the suffixal *g*. Instead, the phonetic result of *b+g* is [bk], as in *subkʌ* in (548). However, the total number of words involved in this assimilation, both in this and the *gʊ/ɪ* class is too small in my opinion to warrant any general conclusions about which pattern is regular, and whether either pattern is excluded. Compare §3.4.3.1 below on the coalescence and failure of coalescence of consonants.

### 2.1.1.9.1.4.3 Class ɡa/nɪ, sub-type singular [laŋa] and plural [lau]

(549)  *Nouns in the ɡa/nɪ class with singular [laŋa] and plural [lau]*

| singular | plural | gloss |
|---|---|---|
| dɪllaŋa | dɪllau | 'tongue' |
| jɪllaŋa | jɪllau | 'breast' |
| pɪlaŋa | pɪlau | 'moon' |
| sallaŋa | sallau | 'material' |

There exists a small group of nouns (only four in my corpus), given in (549), which end in [laŋa] in the singular and [lau] in the plural. The quality of the (first) suffixal *a* in these words must be lexically specified, since a harmonized vowel in this position would have to surface as phonetic [ɛ] in the words with [ɪ] as their first vowel. These words might therefore be compounds, or could even be fossilized remains of the diminutive suffix *la* which still exists abundantly in Mòoré. I have no explanation for why the plural suffix is not (or does not contain) *nɪ*.

### 2.1.1.9.1.5 The ʊ/fɪ class

The existence of this class and its precise limits are extremely difficult to assess because the plural suffix -*fɪ* has been generalized as the plural suffix which can **always** be used. In spontaneous speech it can even be added to a singular belonging to one of the quite transparent classes, instead of using the 'correct' plural class suffix. Nevertheless, there is a large number of nouns including body parts (like 'body', 'head' and 'neck') and articles of everyday life which pattern in a similar way: the singular ends in a back rounded vowel (*u, ʊ, o, ɔ*) and the plural in *fɪ*. Moreover, if the word is disyllabic the vowel of the singular drops in the plural.[58] The descriptive problem is that without adequate knowledge (or sources of knowledge) of the neighbouring languages, it is impossible to distinguish native Koromfe vocabulary from loan vocabulary and areal vocabulary. For this reason I have given more examples than usual in (550), and beg the reader's indulgence if some of them turn out not to be native Koromfe words.

Apart from the precise quality of the singular vowel, there is no morphophonological variation in the shape of these class suffixes.

(550)  *Nouns in the ʊ/fɪ class*

| singular | plural | gloss |
|----------|--------|-------|
| bɔ̃ɔ̃ | bɔ̃fɪ | 'hole' |
| bɔrʊ | bɔrəfɪ | 'road' |
| dɔʊ | dɔɔfɪ | 'animal' |
| fɔ̃ | fɔ̃fɪ | 'leaf' |
| fɔrʊ | fɔrəfɪ | 'belly' |
| halʊ | halfɪ | 'hangar' |
| hilo | hilfi | 'voice' |
| ɟɔ̃ | ɟɔ̃fɪ | 'head' |
| kɔ̃ɔ̃ | kɔ̃ɔ̃fɪ | 'smell' |
| kɔ̃sʊ | kɔ̃sfɪ | 'iron' |
| kɔʊ | kɔʊfɪ | 'razor (traditional)' |
| kʊlɔ | kʊləfɪ | 'body' |
| lugu | lugəfɪ | 'roof' |
| luu | lufi | 'intestine' |
| sarʊ | sarəfɪ | 'wind' |
| sɛ̃ɔ̃ | sɛ̃ɔ̃fɪ | 'drug' |
| sogo | sogəfi | 'limit' |
| sorou | sorəfɪ | 'object' |
| tɔ | tɔfi | 'bow' |
| too | tofi | 'emptiness' |
| vĩɔ̃ | vĩfɪ | 'wound' |
| wɔʊ | wɔfɪ | 'thorn-bush' |
| zugo | zugfi | 'tail' |

### 2.1.1.9.1.6 The ʊ/ɪɪ class

(551)  *Nouns in the ʊ/ɪɪ class*

| singular | plural | gloss |
|----------|--------|-------|
| baŋsʊ | baŋsɪɪ | 'spear' |
| fʊrʊ | fʊrɪɪ | 'antelope' |
| jondo | jondii | 'rope' |
| kabsʊ | kabsɪɪ | 'sickle' |
| kʊrsʊ | kʊrsɪɪ | 'trousers' |
| pesu | pesii | 'sheep' |
| sundu | sundii | 'horse' |

This small class is given in its entirety in (551). Despite its phonological resemblance to the *gʊ/ɪ* class[59] in both singular and plural, and to the *ʊ/fɪ* class in the singular, it seems to be an independent one. Note that the plural invariably has a long *ɪɪ*.

### 2.1.1.9.1.7 The m *singular class*

(552)  *Nouns in the* m *singular class*

| singular | gloss |
|----------|-------|
| ham | 'hunger' |
| hem | 'water' |
| ɟãm | 'blood' |
| ɟɪllam | 'milk' |
| leŋgem | 'shadow, shade' |
| sɔ̃m | 'death' |
| tɔm | 'ash(es)' |
| zɪgam | 'dirt' |

This class contains a fairly small number of underived nouns, of which examples are given in (552), but a very large number of gerunds (deverbal action nouns) with the suffix -*am*, as shown in (553)–(554). The coalescence of the suffix vowel *a* and a stem-final non-low vowel in (554) is a regular phonological process (cf. §3.4.3.2.1 below); the imperative forms are given in (553)–(554) to show the phonological shape of the bare verb stems. The resulting vowel is always mid, even if the stem vowel is lexically high (e.g. *dɔɔm*, not *\*dʊʊm* from *dʊ+am*).

(553)  *Nouns in the* m *singular class — deverbal action nouns without suffix-vowel assimilation*

| infinitive | imperative | gloss |
|------------|------------|-------|
| pɔ̃mam | pɔ̃m | 'hit' |
| sɪram | sɪr(ɪ) | 'leave' |
| sukʌm | suk(u) | 'hit' |
| tagsam | tags(ɪ) | 'think' |
| teŋgam | teŋg(ɪ) | 'accompany' |
| sãam | sã | 'jump' |
| taam | ta | 'shoot' |

(554)  *Nouns in the* m *singular class — deverbal action nouns with suffix-vowel assimilation*

| infinitive | imperative | gloss |
|------------|------------|-------|
| dɔ̃ɔ̃m | dɔ̃ | 'dream' |
| dɔɔm | dʊ | 'throw' |
| gɔɔm | gɔ | 'go back' |
| leem | li | 'forget' |
| nɛ̃ɛ̃m | nɛ̃ | 'defecate' |

The issue of whether the suffix *-am* of the GERUNDS is simple or complex is discussed in §2.2.1.2.0.2.1 below.

The words in this class do not normally have a plural. If forced to form one, my informants invariably added a *-fɪ* suffix to the existing *-m*, e.g. *sɔ̃mfɪ* 'deaths'. It is also possible to pluralize a deverbal action noun in this way.

Finally, two words which semantically look as if they should belong in this noun class have a peculiar phonetic shape: [sɔmmɔ̃] 'salt' and [nɛmmɔ̃] 'meat'. Neither word has a plural form. I analyse these words as having a stem-final /m/ followed by the noun class suffix *-m* — i.e. /sɔm+m/ and /nɛm+m/ respectively. The word-final vowel is phonologically slightly unusual, since similar forms with the *-gʊ* suffix, like [wɔ̃nɔ̃ŋ] 'chicken', have an 'epenthetic' vowel between the stem-final consonant (here [n]) and the suffix-initial consonant (here [ŋ]). However, the phonetic realization of 'salt' and 'meat' with a geminate [mm] is in keeping with the general preference of the language for gemination (i.e. binding and silencing of an empty nucleus between identical consonants) over other processes — compare [bunne] 'steal (PAST)' and not *[bunəne] in §3.4.1.1.2.2 below.

### 2.1.1.9.1.8 The fɛ/ɪ singulative/collective class

This class was dealt with in §2.1.1.8.5 above.

### 2.1.1.9.1.9 Other classes which occur only in derived words

There exist two types of derived word which have a single suffix that signals both the derived status and the number of the word. In contrast with the three other derivational-cum-noun-class suffixes (namely the *ɔ/ba* 'human class', the *gʊ/ɪ* 'basic non-human class' and the *ga* diminutive class), these suffixes do not occur on non-derived words. These suffixes

(singular: *-ɛ̃ɛ̃*, *-ɪ*, *-ɪɪ*, *-Vɪ*, *-mɛ̃ɛ̃*, *-fa* and plural: *-mãʊ*, *-sɪ*) are therefore dealt with as derivational morphology in the relevant sub-sections of §2.2.1 below.

### *2.1.1.9.2 Common semantic properties of the members of noun classes*

There are bundles of semantic properties which can be said to be typical of certain noun classes; these are described in the following sub-sections. However, the large *dɛ/a* class is difficult to describe in a homogeneous way.

In no case does a particular regular phonetic variant of the class suffix have any special semantic property that is not shared by the other phonetic variants; therefore most of the sub-classes of §2.1.1.9.1 are subsumed under their parent heading. The semantic properties linking the classes which occur only in derived words mentioned immediately above in §2.1.1.9.1.9 are also dealt with under derivational morphology in §2.2.1.

### *2.1.1.9.2.1 The 'human class' ɔ/ba*[60]

This class contains only nouns which refer to humans (both alive and dead). However, humanness is not a sufficient condition for inclusion in this class. Nouns denoting humans who are considered 'deficient' in some way (e.g. immature, silly, lazy, blind) are often in another class. Moreover, words denoting members of ethnic groups are often not in the 'human' class (though *koromdo*, member of the Koromfe-speaking ethnic group, is).

### *2.1.1.9.2.1.1 The ɔ/ba class, sub-type ɔ/ba*

The most frequently used nouns in this class are the agent nouns derived from verbs; such an agent noun must be in this class, no matter what semantic properties the denoted person may have.

Strangely, the words denoting 'man' and 'woman' both have a singular suffix *-ɔ*, but have a plural in *-na* (which otherwise does not occur as a plural suffix), and in 'man' an irregular stem-vowel change from *ɔ* to *ɛ*.

(555)  *The nouns 'man' and 'woman'*

| singular | plural | gloss |
|----------|--------|-------|
| bɔrɔ | bɛna | 'man' |
| kɛ̃ɔ̃ | kɛ̃na | 'woman' |

This minuscule plural sub-class containing only these two words is reminiscent of the English class *men, women*, but with the difference that there is no imaginable etymological relationship between *bɔrɔ* and *kɛ̃ɔ̃*.

The word *kɛ̃ɔ̃* means both 'woman' and 'wife'; the word *bɔrɔ* means only 'man', and *bara*, PL. *barama* means 'husband'. The phonological similarity of the singulars for 'man' and 'husband', and the fact that the kinship term *bara* has a final *a* which in Mòoré corresponds to the Koromfe -ɔ suffix, seems to indicate two things: a) this kinship term (and perhaps all terms of the [a]/[ama] sub-class — cf. §2.1.1.9.2.1.2 immediately below) may be more recent borrowings from other local languages, and therefore b) the kinship terminology of Koromfe may be an areal system shared by languages other than Koromfe.

Typical glosses for this noun class were given in §2.1.1.9.1.1.1 (530) above.

### 2.1.1.9.2.1.2 The ɔ/ba class, sub-type singular [a] and plural [ama]/[ammã]

This small sub-class contains mainly kinship terms (mother, father, grandparent), including terms of kinship by marriage and even the 'pre-kinship' term *kʊsa* 'fiancé(e)'. Note, however, that apart from their relative shortness, there is no easy way of delimiting these kinship terms by structural criteria from some of the loan words which take the plural suffix -*ma* and, by lexical accident, also have a singular form ending in *a*, such as *mãakɛsa*, PL. *mãakɛsama* 'match'.

It is interesting to observe which kinship nouns are excluded from this sub-class: As mentioned in §2.1.1.9.2.1.1 immediately above, there is a special word for 'husband', *bara* but none for 'wife' (for which *kɛ̃ɔ̃*, the word for 'woman' is used). The word 'grandparent' is included, but 'grandchild' is not; it is in the diminutive class. Glosses of most of the words in this class were given in §2.1.1.9.1.1.2 (531) above.

The word *saa*, PL. *sammã* 'owner', the only non-kinship word in this sub-class, probably derives historically from *sa*, PL. *sammã* 'father'.[61]

### 2.1.1.9.2.2 The 'basic non-human' class gʊ/ɪ[60]

The words in this noun class refer typically to non-human things, including flora and fauna. The few nouns which can refer to humans seem to

denote some characteristic of the referent which is considered non-human, e.g. *zakʊ*, PL. *zapa* 'silly person' (with a *-ba* plural of the human class).

With one exception, there are no differences between the semantic characteristics of each morphophonological sub-class; they are therefore not dealt with separately here. That exception is the plural sub-class in *-ıa* (*-íã*), which is typically used for adjectives (a grammatical rather than semantic characteristic).

To give the flavour of the semantics of this class a set of typical glosses (of words whose singular and plural are regular) is listed in (556).

(556)   *Some glosses of typical (a) nouns and (b) adjectives in the 'basic non-human' class* gʊ/ı *(in alphabetical order)*

(a) cave, claw, (head-)cold, eel, fibre (from bark), field, goat, handle, hen, house, hunchback, kind of bush, kind of tree (2x),[62] large pot, mat, millstone, mortar, pipe, second self, skin, tinderbox, tree (generic)

(b) black, good, new, spotted, white

The most frequently used nouns in this class are the instrument nouns derived from verbs and ordinal numerals, even when they refer to humans.[63] The ordinal numerals have the same *-hî* plural form as the deverbal instrument nouns. Recall that the non-human 3rd person pronoun, both singular and plural, is homophonous with this class suffix, even when the noun to which it refers is in a different class; conversely, no non-human pronoun (apart form the diminutive singular *-ga*) is homophonous with any other noun class.[64]

## 2.1.1.9.2.3 The dɛ/a *class*

This class denotes non-human nouns, including especially fauna and body parts. There are no special semantic characteristics of any of the morphophonological sub-classes; they are therefore not considered separately here. A set of typical glosses is listed in (557).

(557)   *Some glosses of typical nouns in the* dɛ/a *class (in alphabetical order)*

altar, ankle, ant (large), anvil, arm (upper), arrow, back, back of the neck, bag, bark, barn, beam, bean, beard, boar (wild), bone (2x), bracelet, brick, camel, chameleon, camp, chest, clean, cloud, combat group, communal work, cotton, courtyard, crocodile, dam, day, difference, dirt (pile of), ditch, door, drum (large), eagle, easy, edge, egg, ember, eye, fallow field, fence (around field), fibre (of cotton),

fig tree, fig-tree, first, flower, food (dry and deformed), foot, forehead, forest, frog, giant, granary, gutter, half, hand, hatchet, heart, hoe, hole, hole (for window), horn, hyena, kind of bush, kind of fruit, kind of grass (3x), kind of lizard, kind of nut, knee, knife, knot of millet stalks, lion, liver, long, male (animal), march, middle, millet, monkey, mouse, mouth, needle, night, nose, old, open area, ostrich, paper, pea, pebble, penis, period, piece (2x), plate, pond, pot, pupil (of eye), rainy season, rear, red, ridge of roof, rise, rock, root, shoe/sandal, sibling (younger), side, soul, space, spoon, squirrel, stick, stick (forked), story, stream, stretcher, thigh, thumb, tobacco, tooth, ugly, vagina, village/country, vulture, whip, wing, wood, work, worm, year

### 2.1.1.9.2.4 The 'diminutive' class ɡa/nɪ

This class contains nouns denoting persons, objects, etc. that are considered 'small' in some way. Sometimes a noun belonging to a different noun class also has a form with the diminutive singular *ga*, and sometimes (less often) also a diminutive plural, e.g. *subre*, PL. *subʌ* 'cooking pot' (in the *dɛ/a* class) *subkʌ*, PL. *subni* 'small cooking pot' (in the diminutive class).

Some glosses of typical regular members of this class are given in (558). As usual, there is no variance between the sub-classes with different phonetic realizations of the suffix.[65]

(558)   *Some glosses of typical nouns in the 'diminutive' class* ɡa/nɪ *(in alphabetical order)*

anus, axe (small) (2x), barn, bat, bit, blind, bottom, calabash (small), cat, deaf, frog, front, girl, grandchild, hammer, hedgehog, kind of hangar, kind of musical instrument, kind of tree, louse, mouse, navel, old woman (ironic), partridge, pickaxe, pot (small), python, rabbit, rain, round, scorpion, seat, short, small, spirit of the bush, stick (forked), stool, stopper, tambourine, wall, well

### 2.1.1.9.2.5 The ʋ/fɪ class

There is a preponderance of body parts in this class, and there are no nouns denoting (whole) human beings.

### 2.1.1.9.2.6 The ʋ/ɪɪ class

Apart from animals, the nouns in this class tend to denote long, thin objects; however, their number is too small to say anything conclusive.

*2.1.1.9.2.7 The* m *singular class*

The nouns in this class are uncountable (and therefore have no plural).[66]

*2.1.1.9.2.8 The* fɛ/ı *singulative/collective class*

As its label 'singulative/collective' suggests, this class denotes nouns which can be viewed as (small) individual members which make up a mass-like group that is not easily countable. Some typical nouns of this kind are the insects: 'ant, bee, fly, grasshopper, mosquito', the herd animals: 'cattle, fish' (though most herd animals are in other noun classes), the things which grow in almost uncountable masses: 'bushes, creeping plant, fruits (of various kinds), grass (of various kinds), hair, rice, tomatoes', and arguably also 'chain',[67] 'coin', 'pearl', 'star'. Some words have no collective form because these are either semantically inappropriate (e.g. 'one' and names of languages) or are expressed by other nouns (e.g. 'finger').

Nevertheless, there remain a few puzzling words: the animals 'parrot, snake', which are not particularly herd-oriented, the long-thin objects 'rib, stake' (which might form a semantic sub-group together with the equally long-thin types of grass, and with 'snake', for which the secret word is '(blade of) grass'), and the sexual organs 'testicle, vagina'.[68]

*2.1.1.9.3 Noun class marking on words other than nouns and nominal adjectives*

The noun classes are marked on the noun, are similar to the 3rd person pronouns, and are also marked on some deictic adjectives and also arguably on numerals. These aspects of the noun class system are dealt with in their respective sections of this chapter.

Noun classes are not marked on verbs, although the 3rd person short pronouns resemble the human, non-human and diminutive class suffixes, both in subject (=preverbal) and object (=postverbal) position. However, these morphemes are clearly pronouns rather than noun class agreement markers, since they do not appear when there is an overt subject or object noun phrase.

*2.1.1.9.4 Classifiers*

Koromfe has no classifiers.

### 2.1.1.9.5 The assignment of loan-words to noun classes

The assignment of loan words to noun classes was discussed in §2.1.1.8.7 above. Basically, nouns from closely related languages (which themselves have phonetically similar noun classes) are taken over together with their class suffixes, whilst all other words are lumped into the *-fi* or *-ma* plural classes.

Only types of fruit and vegetable and names of languages manage to enter a native Koromfe noun class, namely the *-fɛ* singulative class, e.g. (ATR disharmonic!) *tomatfɛ* (SINGULAT.), *tomatɪ* (COLL.) 'tomato' and *frãsɛfɛ* '(the language) French'.

### 2.1.1.10 Definiteness in noun phrases

A definite NP is marked by a final determiner, as described below. There is no special marking of an indefinite NP, apart from the fact that the DETERMINER which marks a definite NP is missing. Both definite and indefinite NPs have an initial article *a* unless some other element precludes the use of the article (cf. §1.2.5.2.4 above).

### 2.1.1.10.1 The marking of definiteness

Definiteness is marked with a separate word, which is located at the end of the noun phrase (even after a relative clause, if need be). These words, which I term DETERMINERS require the presence of the noun-phrase-initial article *a*, or of some syntactic element (e.g. a possessive adjective) which precludes the article *a*. The DETERMINERS are listed in (559). The long form has more demonstrative or deictic force — cf. §1.2.5.2.5.1 above.

(559)   *The determiners. (Both short and long forms are used as demonstrative adjectives; the long form has stronger deictic force.)*

|  | human singular | human plural | non-human singular | non-human plural | diminutive singular |
|---|---|---|---|---|---|
| *short form* | hoŋ | beŋ | koŋ | hɛ̃ŋ | kɛŋ |
| *long form* | hoŋgo | beŋgɛ | koŋgo | hɛ̃ŋgɛ | (not used)[69] |

There also exists a set of DEICTIC determiners, which also express definiteness, and which occupy the same NP-final position, listed in (560).

(560)  *The deictics*

| *human singular* | *human plural* | *non-human singular* | *non-human plural* |
|---|---|---|---|
| nandɪ | namba | naŋgʊ | nahɛ̃ |

Note the similarity between the inflecting parts of these words and the pronouns on the one hand, and the 'human', 'basic non-human' and 'diminutive' noun classes on the other.

The deictic *naŋsa* does not inflect. Cf. §1.2.5.2.5.2 above for details of the deictics.

*2.1.1.10.2 The obligatory/optional status definiteness marking in the noun phrase*

The marking of definiteness in the noun phrase is normally obligatory if the noun is definite. However, NPs qualified by possessive adjectives only optionally take an NP-final definite determiner (e.g. *mə bɔrɔ* and *mə bɔrɔ hoŋ* both mean 'my friend'). Body parts can occur without a definite determiner even when no possessive adjective is used. An example is given in (564) below, where *a nɛ̃nɛ* 'a mouth' clearly belongs to the person referred to by the subject *a fo* 'a person'.

*2.1.1.10.3 Variations in the form of the definiteness marker according to the spatial relationships*

The form of the definite article does not vary due to the spatial relationship between the entity concerned and participants in the speech act. Rather, the long form is more strongly demonstrative or deictic (cf. §2.1.1.10.1 above).

Since variation according to the spatial relationships does not occur, §2.1.1.10.4 is inapplicable.

*2.1.1.10.5 Where definiteness is and is not indicated*

*2.1.1.10.5 Proper names*

Definiteness can never be marked on proper names; not even the NP-initial, definiteness-neutral article *a* can be used with them. The only borderline case is names of languages, which take the article *a*, e.g. *a frãsɛfɛ* 'French'.

## 2.1.1.10.5.2 Abstract nouns

Definiteness is not marked by a final determiner in non-contrastive abstract nouns, as shown in (561), but the article *a* must, as ever, be present under the usual conditions (cf. §1.2.5.2.4). In contrastive usage, however, the determiner can be used to show definiteness, as shown in (562), though this is not obligatory.

(561) ʊ        zaŋa     a     bʌ̃ʌ̃ni        ke               a      bʌ̃ʌ̃ni
      PRON. 1PL. ask for  ART.  health (SG.)  because (CONJ.)  ART.   health + SG.

      la     (a)                 kaɪm̃ɔ
      COPULA ART. (*elided*)      old person + SG.

      'We ask for health, because health is the most important thing.'[70] *(Lit.*
      '...because health is an old person.'*)*

(562) də                 dɔɪm̃ɛ̃ɛ̃ koŋ                    dɔgs(ʊ)  a     nɛ̃nɛ
      PRON. 3SG. HUM.    length   DET. NON-HUM. SG.      cross    ART.  mouth + SG.

      'He is too tall.' *(Lit.:* 'His length has crossed the mouth', *i.e. it has left the*
      *bounds of that which is normal.)*

## 2.1.1.10.6 The obligatory/optional status of definiteness marking

For proper names, there is obligatorily no definiteness marking and no article; for abstract nouns, the definite determiner is obligatorily missing in non-contrastive usage and optional in contrastive usage.

## 2.1.1.11 Indefiniteness in noun phrases

Indefiniteness is not marked except by the absence of a definiteness marker — therefore §2.1.1.11.1–6 are inapplicable.

## 2.1.1.12 Referential and non-referential indefiniteness in noun phrases

Referential and non-referential indefiniteness are not distinguished — therefore §2.1.1.12.1-§2.1.1.12.4 are inapplicable.

## 2.1.1.13 Genericness in noun phrases

Genericness is not marked by any special device; normally an indefinite noun phrase is used to express genericness, as shown in (563). A definite noun phrase (i.e. with a final determiner) analogous to English *'The beaver builds dams.'* is not possible.

This generic use of indefinite NPs in sentences such as (564) is probably the origin of the use of *fo* 'person', *kãŋ* 'thing', *tike* 'place' and *sɔ̃ɔ̃nɛ* 'time' as substitutes for indefinite pronouns (cf. §2.1.2.1.13.3 and §2.1.2.1.14 below). §2.1.1.13.1–2 are therefore inapplicable.

(563) a      hem        jagalı   la       a       kaımɔ̃
      ART.  water(SG.) fresh    COPULA  ART.    old person
      'Fresh water is the most important thing.'[71]

(564) a    fo          dɛ          n              zuɡrʌʌ      a        nẽnɛ
      ART. person + SG. eat + PAST PRON. 2SG.[72] rinse + PROG. ART.    mouth
      'When a person has eaten, he rinses his mouth.'

### 2.1.1.14 Marking of more or less important noun actors

There is no such marking except for the syntactic devices of emphasis and topicalization (neither of which involve any morphological change in the noun). §2.1.1.14.1–3 are therefore inapplicable.

## 2.1.2 Pronouns

### 2.1.2.1 Personal pronouns

### 2.1.2.1.1 Free (disjunctive) pronouns

There exists a set of free pronouns, which, generally speaking, can be used in all syntactic positions in which any other noun phrase or clitic pronoun can be used. There are also clitic pronouns (see §2.1.2.1.10 below). The free pronouns (which I call 'DISJUNCTIVE PRONOUNS', abbreviated DISJ. PRON. in glosses) have the same phonetic shape when used as subject, direct object, indirect object or anything else. Formally, they are composed of the clitic pronoun (as a prefix) followed by a stem *kɔ*, which does not occur as an independent noun in Koromfe.[73] Their forms are given in (565).

(565)   *The free ('disjunctive') pronouns*

|                        | *singular* | *plural* |
|------------------------|-----------|----------|
| *1st person*           | məkɔ      | ʊkɔ      |
| *2nd person*           | ŋkɔ       | nakɔ     |
| *3rd person human*     | dəkɔ      | bakɔ     |
| *3rd person non-human* | ɡʊkɔ      | ıkɔ      |
| *3rd person diminutive*| ɡakɔ      | (*none*) |

### 2.1.2.1.1.1 Obligatory use of free pronouns

There is no case in which a free pronoun must obligatorily be used within the basic clause structure involving a subject NP, verb and object NPs. In cases where one of these NP is required for syntactic well-formedness (e.g. as the subject of a sentence) a clitic pronoun can just as easily be used.

When a pronoun is emphasized or topicalized (cf. §1.11 and §1.12 above respectively), only the free form and not the clitic can be used. In a nutshell: a clitic pronoun can always be used when it has something to cliticize to (i.e. a verb for the postclitics and a noun, verb or postposition for the proclitics); otherwise a free pronoun must be used.

This holds for first, second and all types of third person (i.e. §2.1.2.1.1.1.1–3, which are therefore omitted).

### 2.1.2.1.1.2 Optional use of free pronouns

Free pronouns can always optionally be used in contexts where clitic pronoun could be used (barring the emphasized 2nd plural imperatives described in §2.1.2.1.1.3.3 below).

This holds for the first, second and all types of third person (i.e. §2.1.2.1.1.2.1–3, which are therefore omitted).

### 2.1.2.1.1.3 Contexts in which free pronouns occur

### 2.1.2.1.1.3.1 Non-emphatic contexts in general

It is impossible to tell how emphatic the free pronouns are; my feeling is that they can always be used, whether the context is emphatic or not; but only the free pronouns can be used in emphatic contexts (i.e. a clitic pronoun cannot be stressed). Also, when used with the following reflexive noun *gɪllɛ* the free pronouns always seem to be emphasized (cf. §2.1.2.2 below.)

With postpositions the free pronoun seems hardly to be emphasized, and it is quite typical in this position, e.g. *məkɔ wa* 'at my house/place' (Fr. *chez moi*) or *məkɔ nɛ* 'for me'. However, the proclitic pronouns can also be used with postpositions, e.g. *mə wa* 'at my house/place' (Fr. *chez moi*) or *mə nɛ* 'for me'

*2.1.2.1.1.3.2 Contexts where the referent of the pronoun is emphasized*

In contexts where the referent is emphasized the clitic pronouns cannot be used and therefore the free pronouns are obligatory.

*2.1.2.1.1.3.3 Non-emphatic contexts with imperative verbs*

No pronoun normally occurs with unemphatic singular 2nd person imperatives. In plural 2nd person imperatives, the proclitic subject pronoun *na* and the verb are inverted. However, inversion with the free 2nd plural pronoun *nakɔ* is impossible. This is the only case I know of in Koromfe where a free pronoun is not interchangeable with the equivalent clitic pronoun.

*2.1.2.1.1.3.4 Contexts with imperative verbs where the referent of the pronoun is emphasized*

In such contexts, as in all emphatic contexts, the free pronoun is used because the clitic pronoun is impossible. Thus the 2nd singular imperative with emphasized referent has the structure *ŋkɔ* + V and the plural equivalent has *nakɔ* + V + *na*, where *nakɔ* is the free form of the 2nd plural pronoun and *na* the (post)clitic form. Examples are given in (566) and (567) respectively. Note that these structures cannot be distinguished from those with a free pronoun as the topic or as a vocative.

(566)  ŋkɔ              bε      jere
       DISJ. PRON. 2SG.  come    here

       '**You** (sg.) come here!'

(567)  nakɔ             bε      na                     jere
       DISJ. PRON. 2PL.  come    POSTCLIT. PRON. 2PL.   here

       '**You** (pl.) come here!'

*2.1.2.1.1.3.5 In answer to questions of the type 'who is that?', i.e. '(it's) me'*

This is a typical and very common usage of free pronouns. An example question-answer sequence is given in (568).

(568) ala        wɛ̃  a     kɛkʋ      joro
      who (QU.)  be   ART.  field + SG. in (POSTPOS.)

      — məkɔ            la
      — DISJ. PRON. 1SG. EMPH.

      'Who is in the field?' — 'It's me!'

#### 2.1.2.1.1.3.6 In cleft or pseudocleft constructions

There is no cleft construction in Koromfe, but free pronouns typically occur as the moved NP of a pseudocleft construction, as shown in (569)–(570).

(569) tɪgɛ       kemde        kɔ          — məkɔ            la
      be + PAST  (*proper name*) in any case — DISJ. PRON. 1SG. COPULA

      kɔ̃n            məkɔ            na    dɪ           dɛ̃ɛ̃
      NON-SPEC. REL. DISJ. PRON. 1SG. see   PRON. 3SG. HUM. yesterday

      'As far as Kemde is concerned — it's me who saw him yesterday.'

(570) kemde          — dəkɔ            la      mə         na
      (*proper name*) — DISJ. PRON. 3SG. HUM. COPULA  PRON. 1SG.  see

      dɛ̃ɛ̃
      yesterday

      'As for Kemde, it's him I saw yesterday.'

The above sections summarize the occurrence of the free pronouns accurately, therefore §2.1.2.1.1.3.7 is omitted.

#### 2.1.2.1.1.4 Phonological differences between free pronouns in emphatic vs. non-emphatic contexts

The phonological shape of the free pronouns never varies, whether used in emphatic or non-emphatic contexts. Contrastive stressing / intonational prominence for emphasis is possible, but this does not otherwise affect the quality or quantity of the segments.

However, note that there is indeed a difference in the phonological shape of the prefixal and suffixal variants of the **clitic** pronouns (cf. §2.1.2.1.10 below); the free pronouns always occur with the prefixal (i.e. phonetically less substantial)[74] variant of the clitic pronoun (cf. §2.1.2.1.1 above, esp. the table (565)).

Since free pronouns are never reduced §2.1.2.1.1.5 is inapplicable.

*2.1.2.1.2 Person distinctions in the pronouns*

*2.1.2.1.2.1 1st vs. 2nd vs. 3rd person*

The basic distinction of person in the pronoun system is one of 1st vs. 2nd vs. 3rd person. The 3rd person is further subdivided into human vs. non-human (in both singular and plural) and diminutive (in the singular only). Also there is a special anaphoric usage of the 2nd person singular pronoun for a repeated 3rd person singular subject (cf. §1.5.2.2 above).

*2.1.2.1.2.2 1st vs. non-first person*

There is no general distinction of 1st vs. non-first person; however, there is a special anaphoric use of the 2nd person singular clitic pronoun for a 3rd person repeated subject in clauses coordinated by juxtaposition, which may be considered to be a (marginal) case of a 'non-first person' pronoun. See §1.5.2.2 above for details.

There are no other person distinctions in the pronouns, therefore §2.1.2.1.2.3 is omitted. There is also no distinction of exclusion/inclusion in the 1st and 2nd person plural, therefore §2.1.2.1.3 is omitted.

*2.1.2.1.4 Number distinctions in the pronouns*

*2.1.2.1.4.1 Occurring number distinctions*

Only singular/plural (§2.1.2.1.4.1.1) occurs, therefore §2.1.2.1.4.1.2–7 are inapplicable.

Pronouns are marked for number (singular vs. plural) in all persons. In addition, the 3rd person (both singular and plural) is marked for human vs. non-human and, in the singular only, for diminutive.

*2.1.2.1.4.2 Optional marking of the number distinction*

Number marking is always observed. There exists a 'polite/respectful' use of the plural in place of the singular for the second and third person (described in §1.1.1.3 above for the imperative and in §2.1.2.1.12 below).

*2.1.2.1.4.3 Overlapping reference between subcategories*

There is no overlapping of the pronoun subcategories apart from the special anaphoric use of the 2nd person singular for 3rd singular mentioned in §2.1.2.1.2.2 above and described in §1.5.2.2.

There are no pronouns referring to 'two or more' etc. and there is no paucal, therefore §2.1.2.1.4.4–5 are omitted.

*2.1.2.1.4.6 Association of pronouns with numerals in noun phrases*

Pronouns can be associated with numerals in noun phrases, e.g. *ba tãã* 'they three'. When a noun is also included in the NP, the resulting structure is ambiguous. In (571) *ba fʊba hĩĩ* could mean 'they, two people' or 'two of their people', with the structures [*ba* [*fʊba hĩĩ*]] and [[*ba fʊba*] *hĩĩ*] respectively.

(571)  a        bɛnna      bu         bɛŋgɛ                       mə         na
       ART.   male + PL.   child + PL.   LONG DET. 3PL. HUM.   PRON. 1SG.   see

       ba                   fʊba              hĩĩ
       PRON. 3PL. HUM.   person + PL.   two

       'I saw two of those boys.' *(Lit.:* '(Of) those boys I saw two (of) their people.'
       *or* '(Of) those boys I saw them, two people.'

There is no obvious numerical limit to this usage, although numbers above one thousand are quite artificial and non-native anyway.

*2.1.2.1.4.7 Collective vs. distributive plurals*

There is no formal distinction of collective vs. distributive in the plural pronouns; this distinction within the noun classes is a semantic rather than a formal one (cf. §2.1.1.8.5 above) in the collective/plural, and only the singulative is specially marked in the nouns (by the class-suffix *-fɛ*). However, collective (mass) nouns are sometimes referred to with a singular pronoun (e.g. *mũĩ* 'rice') if they are considered to be a mass, just as they can have singular agreement of adjectives.

There are no distinctions in the pronouns of Koromfe corresponding to §2.1.2.1.4.8 or §2.1.2.1.5.1–2; they are therefore omitted.

*2.1.2.1.6 Degrees of proximity to the participants in the speech act*

There is no distinction of proximity to the participants in the speech act, therefore §2.1.2.1.6.1 is inapplicable.

*2.1.2.1.7 Special anaphoric third person pronouns*

There is a special anaphoric usage of the proclitic 2nd person singular subject pronoun for the 3rd person singular, but no morphologically distinct special anaphoric 3rd person pronoun. An example of this usage can

be found in (564) above, and a further one is given in (572). See §1.5.2.2 above for details of the syntactic restrictions on its use.

(572)  a    kara     kɔ̃            fɩlɛtɛ        nɛ̃ŋ  ja    a
          ART. new year  when (CONJ.)  arrive + PAST  thus  EXCL.  ART.

          fo              pandaa        n             lat(ɩ)       a     bʌ̃ʌ̃ni
          person + SG.  give + PROG.  PRON. 2SG.  seek + DUR.  ART.  health

          n              lat             a        zende
          PRON. 2SG.  seek + DUR.  ART.  year + SG.

          'Now that the new year has arrived, a person makes a sacrifice, he asks for health and he asks for a (good) year.'

### 2.1.2.1.7.1 Clashes between natural gender and grammatical gender

There is no gender in the strict sense of male vs. female, but the human-ness distinction can potentially lead to clashes, e.g. 'the man and his dog' ... 'they'. Here, the human 3rd person plural pronoun *ba* must be used; I know of no case in which a non-human anaphoric pronoun is used. There are no direct clashes of noun class because the class of a noun is never reflected anywhere else (e.g. by agreement); only number and humanness agree (cf. §2.1.4.3 on agreement between nouns and adjectives).

### 2.1.2.1.8 Class and gender distinctions in pronouns

There is no gender distinction of male vs. female in Koromfe, and no class distinctions in the pronouns that parallel the rich variety of the class sys-tem in nouns. However, in the 3rd person pronouns both humanness (in singular and plural) and diminutive (in the singular only) are distin-guished. These distinctions of humanness and diminutiveness are entirely semantic (not lexical) and therefore cut across the noun class system — despite the fact that sometimes the same morphemes are involved. This situation is particularly paradoxical in fables, where animals are referred to by the human 3rd person pronouns *d(ɩ)* and *ba*, but their noun class suffixes are entirely non-human, e.g. *jergʌ* rabbit (with the *-ga* diminutive class suffix), *jemde* (with the *-dɛ* suffix of the *dɛ/a* class which contains no nouns with human referents).

### 2.1.2.1.8.1 Sex of the speaker or hearer

The sex of the speaker or hearer is never formally distinguished in the pronouns or elsewhere in the morphology. There are also no special pro-

nominal forms indicating the tribal, sectional, or family relationships of the referents, speaker or hearer, therefore §2.1.2.1.9 is omitted.

*2.1.2.1.10 The forms of the personal pronouns*

The free ('disjunctive') pronouns were given in (565) above, but are repeated here for convenience, together with the clitic pronouns in their prefixal and suffixal forms.

(573)   *The (positive) pronouns. (NB: There is no diminutive plural form. Uppercase N stands for a 'syllabic' nasal that is homorganic with the following consonant. Vowels in parentheses are realized only phrase-finally or pre-pausally — cf. §3.2.6.4.2.2 below.)*

| person ↓ | prefix | | suffix | | free[75] | |
|---|---|---|---|---|---|---|
| | *sing.* | *pl.* | *sing.* | *pl.* | *sing.* | *pl.* |
| *1st* | mə | ʊ | m(ɛ) | hɔ̃ | məkɔ | ʊkɔ |
| *2nd* | N | na | n(ɛ) | na | ŋkɔ | nakɔ |
| *3rd human* | də | ba | d(ɪ) | ba | dəkɔ | bakɔ |
| *3rd non-human* | gʊ | ɪ | gʊ | hɛ̃ | gʊkɔ | ɪkɔ |
| *3rd diminutive* | ga | --- | ga | --- | gakɔ | --- |

The phonetic realizations of the prefixal and suffixal variants can be derived phonologically from a single lexical form. These lexical forms are the equivalent (in whatever phonological theory one espouses) of (574).

(574)   *The lexical forms of the pronouns (proclitic, postclitic and disjunctive). (The disjunctive (free) pronouns have a suffix -kɔ. Vowels in parentheses are empty nuclei which are filled with /ɪ/ phrase-finally or pre-pausally — cf. §3.2.6.4.2.2 below.)*

| | *singular* | *plural* |
|---|---|---|
| *1st person* | m(ə) | hʊ̃ |
| *2nd person* | n(ə) | na |
| *3rd person human* | d(ə) | ba |
| *3rd person non-human* | gʊ | hɪ̃ |
| *3rd person diminutive* | ga | --- |

The prefixal variant of *hʊ̃* results from the dropping of a word-initial *h* before an unstressed vowel and the denasalization of the unstressed word-initial vowel *ʊ̃* to *ʊ*. Its suffixal variant results from the lowering of final unstressed nasal *ʊ̃* to *ɔ̃*. The prefixal and suffixal variants of *hɪ̃* results from exactly the same processes, but with a back rather than a front vowel.

The prefixal variant of the 2nd person singular form *n* is syllabic phrase-initially and assimilated to the place of articulation of the following consonant (hence the capital *N* in table (573)), but is realized as phonetic [n] in the suffixal variant. The vowel [ɛ] of the suffixal variant results from the general phonological process of phrase-final filling (cf. §3.2.6.4.2.2 below), which gives an *ı* colouring to a phrase-final unspecified vowel (final phonetic [n] being impossible in polysyllabic words) and of lowering after the nasal consonant.

There also exists an incomplete set of negative prefixal pronouns, mentioned in §1.4.1 above and given again in (575), which can only be used as the (prefixed) subject of a verb (which then has a negated reading).

(575)   *The prefixal negative clitic subject pronouns*

| person ↓ | sing. | pl. |
|---|---|---|
| *1st* | maa | --- |
| *2nd* | --- | --- |
| *3rd human* | daa | baa |
| *3rd non-human* | ɡaa | --- |
| *3rd diminutive* | --- | --- |

These pronouns clearly consist of the normal prefix pronouns followed by a long *aa*. The missing forms in the paradigm are probably impossible for phonological reasons: the 1st plural and 3rd plural non-human prefix pronouns consist of a single vowel, and the 2nd singular and 2nd plural forms would be indistinguishable (both presumably being realized as *\*naa*). Similarly, the 3rd singular diminutive form would be indistinguishable from the 3rd singular human form *ɡaa*. The last lacuna, the 3rd plural diminutive is already present in the positive pronoun paradigm.

My informants denied the existence of *aa* as a negative particle, but there are two sentences, given in (576)–(577), in different texts of my collection, which seem to have it (with subjects other than the prefix pronoun).

(576)   (...) ke (...)   kãŋ       kãã    duɡre       la      aa      harɛ
        that (CONJ.)   thing + SG.   every   kind + SG.   EMPH.   NEG.   touch + PAST

        dı
        PRON. 3SG. HUM.

        '(...) so that (...) no species of thing (=animal) should touch him.'

245

(577) dɔ                  bo   ke          ajɛj   ke
     PRON. 3SG. HUM.   say   that (CONJ.)   EXCL.   that (CONJ.)

     dəkɔ                 aa   boŋ   koŋ
     DISJ. PRON. 3SG. HUM.   NEG.   want   DEMONST. PRON. NON-HUM. SG.

     'He said "Hey!", that he didn't want that.'

#### 2.1.2.1.11 Tense marking in the pronouns

Tense is not marked in the pronouns.

#### 2.1.2.1.12 The marking of status distinctions in the pronoun

The plural is used in place of the singular in the 2nd and 3rd person to convey 'respect' or 'politeness' (the terms used by my informants). Such pronominal forms are used when speaking or referring, for example, to the chief of a village or someone of even higher social status than the chief, or when to God. Thus, for example, the sentence 'He has left.', when referring to the chief of the village, would normally be rendered as *ba gondu* (lit. 'They have left.', with a 3PL. subject pronoun) rather than *də gondu* (lit. 'He has left.', with a 3SG. subject pronoun).

These plural pronouns are not used for normal conversational politeness (e.g. with a stranger of more-or-less equal status) in the way that French *vous* or German *Sie* are; here the singular forms are always found. It seems that the chief of the village is the lowest social rank for which the plurals are used.[76]

#### 2.1.2.1.12.1 The use of titles or other nouns

The use of titles or other nouns instead of a pronoun is never obligatory. Therefore §2.1.2.1.12.1.1–2 are inapplicable.

#### 2.1.2.1.12.2 Different reference when forms from the neutral system are used as status forms

The plurals pronouns, when used as polite forms with singular referent are the only case in which forms of the neutral system acquire a different reference (cf. §2.1.2.1.12 above).

*2.1.2.1.12.3 Differences in other distinctions made in the neutral system and among the status forms*

The polite plurals are only used with humans, therefore in effect the humanness and diminutive distinctions of the neutral pronoun system do not exist in the status forms. Similarly, the number distinction is no longer effective, insofar as the plural 2nd or 3rd person pronouns can have singular or plural referent (i.e. *ba gondu* 'they have left' can refer to one or to more-than-one chief(s)).

*2.1.2.1.13.1 Special non-specific indefinite pronouns*

There are no special non-specific indefinite pronouns like French *on* or German *man*. For such usage, typically the NP *a fo* 'a person' is used, as shown in (578) and (564) above. This usage is described in detail in §2.1.2.1.13.3 and §2.1.2.1.14 below.

(578)  ke        a      fo      dɛ              n              jɔnaa
        because   ART.   person  eat + PAST      PRON. 2SG.[77]  drink + PROG.

        'Because when one has eaten, one drinks (something).'

*2.1.2.1.13.2 Forms from the personal system used also as non-specific indefinite pronouns*

There are non-specific usages of the normal 2nd singular and 3rd plural pronouns which are quite similar to English or French usage — and with the same indeterminacy as to whether a specific 2nd singular or 3rd plural subject is referred to. Examples are given in (579) and (580) respectively. The other person and number combinations do not seem to be used.

(579)  ba                  wɔfaa          bɔnɛ         hĩĩ   n            dags
        PRON. 3PL. HUM.    have + DUR.    goat + PL.   two   PRON. 2SG.   add

        ase
        what (QU.)

        'They have 2 goats and what else?' *(Lit.:* 'They have 2 goats and you add what?'*)*

(580) ba             kekə     dı               asãmble
       PRON. 3PL. HUM.  choose  PRON. 3SG. HUM.  assembly (Fr.)

       koŋgo                 jıka  nɛ
       LONG DET. NON-HUM. SG.  face  at (POSTPOS.)

       'They elected him (as) head of that assembly.' *(Lit.:* 'They chose him to the front of that assembly.'*)*

### 2.1.2.1.13.3 Nouns with the function of non-specific indefinite pronouns

The nouns *fo* 'person', *kãŋ* 'thing', *tike* 'place' and *sɔ̃ɔ̃nɛ* 'time' are used with universal quantifiers to fulfil the function of non-specific indefinite pronouns; therefore 'everyone' is indistinguishable from 'anyone'. The most commonly used forms are *foŋkãã* 'anyone/everyone',[78] *kãŋkãã* 'anything/everything', *tike dʊrʊ* 'anywhere/everywhere' and *sɔ̃ɔ̃nɛ dʊrʊ* 'anytime/every time', but other combinations of noun and universal quantifier also occur. Sentence (581) contains two such words: *kãŋ* 'anything' (meaning here 'any wild animal') and *tike dʊrʊ* 'anywhere', and (stylistically) the first quantifier on *kãŋ* is dropped.

(581) də              bo  ke         kãŋ       kɔ̃            wɛ̃
       PRON. 3SG. HUM.  say  that (CONJ.)  thing + SG.  NON-SPEC. REL.  be

       tike          dʊrʊ  bı    gʊ              bɛ     dı
       place + SG.  all   CONJ.  PRON. 3SG. NON-HUM.  come  eat

       dı                də               sıbʊ də             da
       PRON. 3SG. HUM.  PRON. 3SG. HUM.  die  PRON. 3SG. HUM.  win

       də                gıllɛ
       PRON. 3SG. HUM.  self

       'She said that (any) beast that exists anywhere should come and eat her (so that) she (would) die and have her peace.'

When these words are not universally quantified, they can also have a non-specific reading (cf. §2.1.2.1.13.1 above); but the non-quantified expressions can also be used in place of the specific indefinite pronouns (see §2.1.2.1.14 immediately below).

### 2.1.2.1.14 Specific indefinite pronouns

As with the non-specific indefinite pronouns, the function of specific indefinite pronouns (corresponding to English *someone* etc.) is fulfilled by nouns — in fact, by the same nouns (cf. §2.1.2.1.13.3 above), but without universal quantification. Usually, but not obligatorily, the numeral 'one' is

also used. Examples without and with the numeral are given in (582) and (583) respectively.

(582)  a      fo              la     bɛ     la     mə          bāĩ
       ART.   person + SG.    EMPH.  come   and/but   PRON. 1SG.   not know

       ala          la
       who (QU.)    EMPH.

       'Someone has come, but I don't know who.'

(583)  kāŋ          dom   la     sol   sɛ̃nɛ
       thing + SG.  one   EMPH.  fall  to/on the ground

       'Something has fallen on the ground.'


*2.1.2.1.15 Special emphatic pronouns*

Apart from the emphatic use of the free pronouns (cf. §2.1.2.1.1.1 above) there are no special emphatic pronouns. Therefore §2.1.2.1.15.1–3 are inapplicable.

*2.1.2.1.16 Complex pronouns combining different types of reference (e.g. both subject and object reference)*

Special, morphologically distinct complex pronouns combining different types of reference (e.g. both subject and object reference) do not occur except by the free combination of the normal pronouns when both the direct and indirect object are pronouns, as in (584). Note that here, quite regularly, the final vowel of the postclitic pronoun *d(ı)* is realized as schwa and not a full vowel, since it is not in phrase-final or pre-pausal position.

(584)  a      bɔrɔ           hoŋ             pa    də                kɛ̃ɔ̃
       ART.   man + SG.      DET. HUM. SG.   give  PRON. 3SG. HUM.   woman + SG.

       a      fāĩ             bı             daa                      panɛ
       ART.   porridge (SG.)  QUEST   NEG. PRON. 3SG. HUM.            give + PAST

       də                    gʊ
       PRON. 3SG. HUM.       PRON. 3SG. NON-HUM.

       'Did the man give the porridge to his wife or didn't he give her it?'


*2.1.2.1.17 Constructions of the pronoun-noun type with the same reference*

Constructions of the pronoun-noun type with the same reference are quite normal with all free (disjunctive) pronouns, as shown in (585), but not with the clitic pronouns. (Recall that a clitic pronoun prefixed on a noun is

a possessive adjective, and that nouns have class suffixes which may have developed historically from such a usage.) The article *a* surfaces only in slow or careful speech, since it is elided by a quite general phonological process after a mid vowel (and all free pronouns end with the mid vowel [ɔ]).

(585)  ʋkɔ                    (a)                              korombʌ
      DISJ. PRON. 1PL.   ART. *(optionally elided)*   *proper name*
      'we Koromba'

### 2.1.2.1.18 Constructions of the type 'we (and) the priest' meaning 'I and the priest'

This type of construction does not occur; the meaning 'I and NP' is always expressed with the singular pronoun. Therefore §2.1.2.1.18.1 is inapplicable.

Koromfe also has no secondary pronoun system available by which it is possible to specify in greater detail the precise composition of various non-singular combinations of persons, therefore §2.1.2.1.19 is omitted.

### 2.1.2.1.20 Cases in pronouns

Koromfe has no cases. The superficial phonetic differences between proclitic (subject and possessive) and postclitic (object) pronouns are purely phonologically determined (cf. §2.1.2.1.10 above), therefore §2.1.2.1.20.1 and its subsections are inapplicable.

### 2.1.2.2 Reflexive pronouns

### 2.1.2.2.1 Reflexive pronoun vs. common noun

For the marking of reflexives the word *gɪllɛ* 'self' is used following either a proclitic or a free pronoun. This word looks for all the world like a singular noun of the *dɛ/a* noun class; but it has no plural. However, since sentences such as (586) exist, where *gɪllɛ* has no proclitic pronoun but an article *a*, this word must be a common noun. In any case, there is no reflexive pronoun like French *se* or German *sich*.

(586)  a      gɪllɛ   pɔg(ɔ)lam        ba      dɔnda
      ART.  self    injure + GERUND   NEG.   be good
      'To hurt yourself is not good.'

*2.1.2.2.2 Subcategories of reflexives*

The categories of the 'pronoun + *gɪllɛ*' sequence are the same as for the personal pronouns in general (cf. table (573) above), but with the interesting detail that *gɪllɛ* is always used in the same form, even when the pronoun is in the plural. The reflexive pronouns are therefore as given in (587) below, and §2.1.2.2.2.1–9 are omitted because the answers are identical with the relevant sub-sections of §2.1.2.1 above.

*2.1.2.2.3 The forms of the reflexive pronoun*

Since they are so few in number, all the reflexives are given in (587) and a few examples in (588)–(590).

(587)  *The reflexives*

|  | *singular* | *plural* |
|---|---|---|
| *1st person* | mə gɪllɛ | ʊ gɪllɛ |
| *2nd person* | ŋ gɪllɛ | na gɪllɛ |
| *3rd person human* | də gɪllɛ | ba gɪllɛ |
| *3rd person non-human* | gʊ gɪllɛ | ɪ gɪllɛ |
| *3rd person diminutive* | ga gɪllɛ | --- |

(588)  mə            pɔgɔ   mə            gɪllɛ
      PRON. 1SG.   injure  PRON. 1SG.   self

      'I have hurt myself.'

(589)  ba                    da    ba                    gɪllɛ
      PRON. 3PL. HUM.   gain  PRON. 3PL. HUM.   self

      'They are saved.' *(Lit.:* 'They gain themselves.'*)*

(590)  də                    pa    də                    gɪllɛ  a     sallɛ        kebre
      PRON. 3SG. HUM.   give  PRON. 3SG. HUM.   self   ART.  plate + SG.   big + SG.

      'He gave himself the big plate.'

For the reflexive, the disjunctive (free) pronoun can also be used, as shown in (591). This use always seems to be emphatic.

(591)  də                    pɔgɔ   dəkɔ                       gɪllɛ
      PRON. 3SG. HUM.   injure  DISJ. PRON. 3SG. HUM.   self

      'He hurt **himself**.'

### 2.1.2.2.4 Case in reflexive pronouns

Case is not marked at all in Koromfe, and not even the superficial phonetic variation found in the clitic pronouns occurs with the reflexives. Therefore §2.1.2.2.4.1–2 are inapplicable.

Since there exists a reflexive pronoun and there are no other ways of expressing reflexivity §2.1.2.2.5–6 are inapplicable.

### 2.1.2.2.7 Other uses of the reflexive pronoun

The reflexive pronouns are also used as reflexive possessive adjectives in the sense 'my own X', 'your own X', etc. (cf. §2.1.2.4.11.2 below). The forms with the free (disjunctive) variant of the personal pronoun are also used emphatically and contrastively.

### 2.1.2.3 Reciprocal pronouns

### 2.1.2.3.1 Reciprocal pronoun vs. common noun as the reciprocals

The plural form *dombʌ* of the common noun *dono* 'comrade' is used as a reciprocal pronoun. It can be used with any plural noun phrase, including 1st and 2nd person pronouns, and with plural imperatives.

Although the word *dombʌ* is clearly a noun, it has one property which sets it apart from true nouns: when used as a reciprocal possessive adjective it has no article or possessive adjective, which would be required with a true common noun (see §2.1.2.4.11.3.1 below).

### 2.1.2.3.2 Subcategories distinguished in the reciprocal

Since it is a noun, the reciprocal *dombʌ* distinguishes no subcategories, but stays *dombʌ* in all usages. Note especially that although the word *dombʌ* has the morphological form 'stem + ba', where *ba* is the plural suffix of the 'human' class *ɔ/ba*, it never reflects the (non-)humanness of its referents, as can be seen in examples (592)–(594) below.

Therefore §2.1.2.3.2.1–9 are inapplicable.

### 2.1.2.3.3 Examples of the reciprocal pronoun

Sentence (592) illustrates the reciprocal *dombʌ* as the indirect object of the sentence. In (593) the understood object of the two verbs (namely the ends of the two ropes) is not overtly expressed in the sentence, although the reciprocal *dombʌ* refers to it/them. Sentence (594) contains two occurrences of *dombʌ* — the first being a reciprocal adjective in *dombʌ timsi*

'mutual fighting' and the second a reciprocal pronoun (as the direct object). In each of the examples (592)–(594), *dombʌ* refers to nouns which are not members of the 'human' class *ɔ/ba*.

(592) ɪ                      pa    dombʌ         a    wãŋkatɪ
PRON. 3PL. NON-HUM  give  comrade + PL.  ART.  moment

'They give one another the signal.'[79]

(593) gʊ                  jɛ̃ɪ    gʊ                 toŋgə  dombʌ
PRON. 3SG. NON-HUM  grab  PRON. 3SG. NON-HUM  join     comrade + PL.

sa
now

'He grabs (the ends of the ropes) and ties (them) together now.'

(594) ɪ                      hɔ̃ŋɔ̃  a    dombʌ        timsi
PRON. 3PL. NON-HUM.  have  ART.  comrade + PL.  fight + PL.

ɪ                      sula          ja     gʌbə  dombʌ
PRON. 3PL. NON-HUM.  forehead + PL.  EMPH.  strike  comrade + PL.

'They fight and fight one another and their foreheads bang together.'

### 2.1.2.3.4 Case in reciprocal pronouns

There is no case in Koromfe. Therefore §2.1.2.3.4.1–2 are inapplicable. §2.1.2.3.5 is answered in §2.1.2.3.1 above and is therefore omitted. There are no other ways of expressing reciprocality, therefore §2.1.2.3.6 is inapplicable.

### 2.1.2.3.7 Other uses of the reciprocal pronoun

The word *dombʌ* also has its normal use as the plural form of the common noun *dono*, PL. *dombʌ* 'comrade', and is found quite frequently in that usage. See §2.1.2.4.11.3.1 below for the only differences between the nominal and reciprocal use of this word (though as a possessive reciprocal and not as a pronoun). The word *dombʌ* is also used as a reciprocal adjective (cf. §2.1.2.4.11.3.1 below).

### 2.1.2.4 Possessive pronouns

### 2.1.2.4.1 The occurrence of possessive pronouns

There is no set of possessive pronouns that is formally distinct from the (free) personal pronouns. However, the personal pronouns can be used as

possessive pronouns: the occurring forms are described in §2.1.2.4.3 below.

### 2.1.2.4.2 Types of possession

As with possession in general (cf. §1.10 above), there is no distinction of alienable/inalienable, temporary/permanent, persons/animals/things, present/past or any other in the possessed nouns in Koromfe, therefore §2.1.2.4.2.1–5 are omitted.

### 2.1.2.4.3 The forms of the possessive pronouns

The possessive pronouns are exactly the same set of pronouns as the free (disjunctive) personal pronouns described above in §2.1.2.1.1 and listed in tables (565) and (573) above; they are therefore not repeated here.

The normal use of the possessive pronouns is exemplified by (595), where *ʋkɔ* 'ours' is the possessive pronoun.

(595)  dǝ                  bo    ke             dǝkɔ                      mɔ̃
       PRON. 3SG. HUM.   say   that (CONJ.)   DISJ. PRON. 3SG. HUM.   also

       dugo                              la        ʋkɔ
       species + PL. (here: race)   COPULA   PRON. 1PL.

       'She says that her race is also ours.' *(I.e.* 'She says that she is also a member of our ethnic group.'*)*

Koromfe has no cases, but has possessive pronouns, therefore §2.1.2.4.4–5 are inapplicable.

### 2.1.2.4.6 Alternative ways of expressing possession with pronouns

Alternative construction is very often used (probably due to potential ambiguities with the personal pronoun) consisting of the word *jɔ̃ŋgʋ* 'property' with a possessive adjective (proclitic or disjunctive), as shown in (596). The corresponding sentence with a disjunctive possessive adjective has *mǝkɔ* in place of *mǝ*.

(596)  a       dãŋ          koŋ                     mǝ            jɔ̃ŋgʋ          la
       ART.   house + SG.   DET. NON-HUM. SG.   PRON. 1SG.   property (SG.)   COPULA

       'The/this house is mine.'

The word *jɔ̃ŋgʋ* never occurs in the plural (e.g. *ʋ jɔ̃ŋgʋ* 'our property' even with a plural referent such as 'our houses' and distributive reading).

## 2.1.2.4.7 Reflexive possessive pronouns

Although there is a reflexive possessive adjective (see §2.1.2.4.11.2 below) this seems to be avoided as a pronoun (again, probably because of potential ambiguities). The same applies to the reciprocal possessive pronoun, therefore §2.1.2.4.8 is omitted.

## 2.1.2.4.9 Emphatic possessive pronouns

Since the form of the possessive pronouns are those of the free or 'disjunctive' personal pronouns, there are no formally distinct emphatic possessive pronouns (although the normal possessive pronouns can be used emphatically).

## 2.1.2.4.10 Other types of possessive pronouns

There are no other types of possessive pronouns; in particular, there is also no special anaphoric usage of the 2nd person singular for a repeated 3rd person singular in the possessive pronouns; this usage only exists in the personal pronouns, and only when the subject is repeated — cf. §2.1.2.1.7 above. Therefore §2.1.2.4.10.1 is inapplicable.

## 2.1.2.4.11 Possessive adjectives

All the above pronouns, plus several more, are used as possessive adjectives with a nominal construction.

## 2.1.2.4.11.1 The forms of the possessive adjectives

The possessive adjectives are exactly the same as the personal pronouns described above in §2.1.2.1.10 and listed in table (573) above (except for the suffixal clitics, since the possessive adjective occurs before the noun which it modifies).

Structurally, the possessive adjectives occur as the NP of a genitival NP+N compound, described in §2.3.1.1.3 below; in other words the possessives are not just formally identical with the personal pronouns — they are the personal pronouns.

The forms which use the free (disjunctive) pronoun are also used as emphatic (including contrastive) possessive adjectives. A full paradigm with the word *bellɛ*, PL. *bɛla* 'back' is shown in (597).

(597)  *The possessive adjectives (illustrated with the word* bɛllɛ, *PL.* bɛla *'back')*

|  | clitic | free (disjunctive) | gloss |
|---|---|---|---|
| *1st sg.* | mə bɛllɛ | məkɔ bɛllɛ | 'my back' |
| *2nd sg.* | m bɛllɛ | ŋkɔ bɛllɛ | 'your (sg.) back' |
| *3rd sg. human* | də bɛllɛ | dəkɔ bɛllɛ | 'his/her (human) back' |
| *3rd sg. non-human* | gʊ bɛllɛ | gʊkɔ bɛllɛ | 'its (non-human) back' |
| *3rd sg. diminutive* | ga bɛllɛ | gakɔ bɛllɛ | 'its (diminutive) back' |
| *1st pl.* | ʊ bɛla | ʊkɔ bɛla | 'our backs' |
| *2nd pl.* | na bɛla | nakɔ bɛla | 'your (pl.) backs' |
| *3rd pl. human* | ba bɛla | bakɔ bɛla | 'their (human) backs' |
| *3rd pl. non-human* | ɪ bɛla | ɪkɔ bɛla | 'their (non-hum.) backs' |

### 2.1.2.4.11.2 Reflexive possessive adjectives

### 2.1.2.4.11.2.1 Forms of the reflexive possessive adjectives

The reflexive possessive adjectives are identical to the reflexive personal pronouns with *gɪllɛ* described in §2.1.2.2.3, listed in table (587) above. An example is given in (598).

(598)  kemde       zãŋ  də              gɪllɛ  gabrɛ
       *proper name*  take  PRON. 3SG. HUM.  self   knife + SG.

       'Kemde takes his own (=Kemde's) knife.'

The reflexive possessive adjectives precede the noun which they modify and are formally identical with the reflexive personal pronouns — which themselves consist of a prefixal clitic pronoun and an invariant noun-like morpheme *gɪllɛ*. Structurally, as with all other possessive adjectives, the reflexive possessive adjective is in fact a reflexive pronoun as the first member of an NP+N compound NP.

### 2.1.2.4.11.3 Reciprocal possessive adjective

### 2.1.2.4.11.3.1 The form of the reciprocal possessive adjective

Koromfe has just one reciprocal possessive adjective — *dombʌ*. This is also the reciprocal personal pronoun, as described in §2.1.2.3 above.

As with its reciprocal pronoun usage (described in §2.1.2.3 above), *dombʌ* can be used as a reciprocal possessive adjective referring to any plural noun phrase, including 1st and 2nd person pronouns and plural imperatives. As with all other possessive adjectives, *dombʌ* precedes the

noun which it modifies because structurally it is the first member of an NP+N genitival compound NP (as are all possessive adjectives).

In (599) the reciprocal *dombʌ* is the first member of a compound noun *dombʌ pãõ* 'one another's gift'; it is assumed that there is exactly one gift for each participant. A plural noun modified by *dombʌ* is ambiguous with respect to the number of 'nouns per person' referred to; in sentences (600)–(601) each of the people involved may have one or more knives. Note that *na* in (601) is the subject pronoun of the plural imperative, and not a proclitic possessive adjective on *dombʌ*.

(599)  ba              zãŋ   dombʌ          pãõ
       PRON. 3PL. HUM.  take   comrade + PL.   gift
       'They take one another's gift.'

(600)  ʋ              zãŋ   dombʌ          gaba
       PRON. 1PL.      take   comrade + PL.   knife + PL.
       'We take each other's knives.'

(601)  zãŋ   na              dombʌ          gaba
       take   PRON. 2PL.       comrade + PL.   knife + PL.
       'Take (pl.) one another's knives!'

The use of *dombʌ* as a reciprocal in (599)–(601) is distinct from its use as a normal noun; if the non-distributive reading 'their comrades' knives' is intended, the possessive adjective must be used (i.e. *ba zãŋ <u>ba</u> dombʌ pãõ* etc., where the second *ba* is the possessive adjective).

### 2.1.2.4.11.4 Emphatic possessive adjectives

The free or 'disjunctive' personal pronouns described in §2.1.2.1.1 and listed in (565) above are also used as emphatic (including contrastive) possessive adjectives (both personal and possessive). Examples of this use are given in (602)–(603).

(602)  məkɔ                bara          hoŋ             kɔ              sɪbɛ
       DISJ. PRON. 1SG.     husband + SG.  DET. HUM. SG.   when (CONJ.)     die + PAST

       nɛŋ  koŋ                  məkɔ                ba     zɔmmaa
       thus  DET. NON-HUM. SG.    DISJ. PRON. 1SG.     NEG.   want + PROG.

       kãŋ          kãã   gɔɔnɛ
       thing + SG.   any    still (ADV.)

       'Now that my husband has died like this I don't want anything any more.'

(603)  zaga  də          soŋ  ɔkɔ              bu          hɛ̃ŋ
      EXCL.  PRON. 3SG. HUM.  take  DISJ. PRON. 1PL.  child + PL.  DET. HUM. PL.
      'Oh! He has taken our children.'

### 2.1.2.4.11.5 Other types of possessive adjectives

There are no other types of possessive adjectives; in particular, there is also no special anaphoric usage of the 2nd person singular for a repeated 3rd person singular in the possessive adjectives; this usage only exists in the personal pronouns, any only when the subject is repeated — cf. §2.1.2.1.7 above.

### 2.1.2.5 Demonstrative pronouns

### 2.1.2.5.1 Parameters involved in the demonstrative pronouns

None of the parameters in §2.1.2.5.1.1–25 are involved in the demonstrative pronouns. The parameter of visibility to both the speaker and hearer (§2.1.2.5.1.21.3) is relevant to the indeclinable demonstrative adjective *naŋsa*, e.g. *bɔrɔ naŋsa* 'that man (over there)', but there is no corresponding demonstrative pronoun. Similarly, the (declinable) demonstrative adjectives *nandɪ*, *namba*, *naŋgʋ* and *nahɛ̃* (e.g. *bɔrɔ nandɪ* 'that man (of whom we were speaking') imply that the modified noun was referred to in previous discourse (§2.1.2.5.1.23.1 — with no implication of the time span) or at least is known to both speaker and hearer (§2.1.2.5.1.22.3), but there is no corresponding demonstrative pronoun.

### 2.1.2.5.1.26 Neutral demonstrative pronoun distinct from a third person pronoun

The adverb *nɛŋ* 'thus' can be used as a neutral demonstrative pronoun with wide reference to the current situation, where in English *this* would be used. An example is given in (604), a typical formula for finishing a story.

(604)  nɛŋ          la        gʋ                m̄ɔ  sogo
      thus (ADV.)  COPULA  PRON. 3SG. NON-HUM  also  boundary
      'This is the end of it.' *(i.e. of the story)*[80]

### 2.1.2.5.2 The forms of the demonstrative pronouns

The determiners described in §2.1.1.10.1 above and repeated for convenience in table (605) below, which (especially in their long form) are also

used as demonstrative adjectives, can be used alone (i.e. as demonstrative pronouns), both in their short and long form. They must, I think, be considered distinct from the third person pronouns because a) they always have some deictic force, and b) they cannot be used as possessive adjectives or pronouns (as the personal pronouns can).

(605)   *The determiners. (Both short and long forms are used as demonstrative adjectives; the long form has stronger deictic force.)*

|  | human singular | human plural | non-human singular | non-human plural | diminutive singular |
|---|---|---|---|---|---|
| *short form* | hoŋ | bɛŋ | koŋ | hɛ̃ŋ | kɛŋ |
| *long form* | hoŋgo | bɛŋgɛ | koŋgo | hɛ̃ŋgɛ | (not used)[81] |

Examples of the demonstrative pronouns (glossed here as 'DET.') are given in (606)–(607).

(606)   koŋgo              mə          wɔ̃f            mə          wɔllʊ
        LONG DET. NON-HUM. SG.   PRON. 1SG.   have + DUR.   PRON. 1SG.   work + DUR.

        'I use this for my work.'


(607)   maa              lata            hoŋ            gɔɔnɛ
        NEG. PRON. 1SG.   seek + PROG.   DET. HUM. SG.   still (ADV.)

        'I won't search for him any more.'


*2.1.2.5.3 Variation in phonological structure*

The choice of the short and long form of the determiner/demonstratives is determined by the degree of deictic force (the long forms being stronger), and not by the iconic representation of distance, size, or anything else.

*2.1.2.5.4 Number marking*

The marking of number, humanness and diminutive-singular is described in §2.1.2.5.5 below, therefore §2.1.2.5.4.1–2 are omitted.

*2.1.2.5.5 Class and gender marking*

As with the personal pronouns, the demonstratives are not marked for the full range of distinctions found in the noun classes, but only for number (singular vs. plural), humanness (human vs. non-human) and diminutive (singular only). The use of a particular demonstrative is determined purely semantically, and independently of the class of the noun referred to.

*2.1.2.5.5.1 Similarities with class and gender marking in the noun*

The phonological shape of the demonstratives bear a strong phonological resemblance to the 'human' ɔ/ba, 'non-human' gʊ/ɪ and 'diminutive' (singular only) ga noun classes (see (608) below).

*2.1.2.5.5.2 Details of the differences*

It is not clear whether one should regard the demonstrative-pronoun usage of the determiners as involving a class-like affix or not; if the first two segments are considered to be a prefix, then the short forms have a 'stem' consisting of a velar nasal [ŋ] only — a very strange-looking stem for Koromfe. The converse analysis is that the demonstratives have a pronoun-like stem,[82] plus a suffix *-g* in the short forms and *-gV* in the long forms (where *V* stands for a copy of the first vowel). The relevant forms are given side by side in table (608) for comparison.

(608)   *The determiners/demonstratives and the corresponding noun class suffixes*

|  | human sing. | human plural[83] | non-hum. singular | non-hum. plural | dimin. singular |
|---|---|---|---|---|---|
| *noun class suffix* | -ɔ | -ba | -gʊ | -ɪ / hɛ̃[84] | -ga |
| *short determiner* | hoŋ | bɛŋ | koŋ | hɛ̃ŋ | kɛŋ |
| *long determiner* | hoŋgo | bɛŋgɛ | koŋgo | hɛ̃ŋgɛ | --- |

The determiners seem to have added phonological material both at the beginning (*h* in the human singular; *k* for *g* in the non-human and diminutive singular) and at the end (*ŋ*).[85] I cannot say whether or in what sense speakers are 'conscious' of these correspondences.

Koromfe does not mark case and no further grammatical categories are marked in the demonstrative, therefore §2.1.2.5.6–7 are omitted.

*2.1.2.5.8 Use of the demonstrative pronouns as demonstrative adjectives*

All 9 demonstrative pronouns given in (605) are used adjectivally. Some examples are given in (609)–(611). In each case, the previous context in the text forces a demonstrative reading of these determiners.

(609)  go                      pa   a    bɛnna      bu
       PRON. 3SG. NON-HUM.  give  ART.  male + PL.  child + PL.

       bɛŋgɛ                    doro  fãã  nɛ              a     bʌ̃ʌ̃ni       la    a
       LONG DET. HUM. PL.  all   all  to (POSTPOS.)  ART.  health (SG.)  and  ART.

       kɛ̃na              bɛŋgɛ                        la    a     beliʌ
       woman + PL.  LONG DET. HUM. PL.       and  ART.  child + PL.

       bɛŋgɛ
       LONG DET. HUM. PL.

       'It gives health to all these boys and these women and these children.'

(610)  a     jemdi                      hoŋgo                    kɔ̃              wɛ̃nɛ
       ART.  hippopotamus + SG.   LONG DET. HUM. SG.   when (CONJ.)   plait + PAST

       (a)           jondii      də                zãŋ   a     tife
       ART. (*elided*)  rope + PL.  PRON. 3SG. HUM.  take  ART.  elephant + SG.

       koŋ                    jondo         də                ja   dɔ̃ɛ̃     la
       DET. NON-HUM. SG.  rope + SG.   PRON. 3SG. HUM.  go   attach  with (PREP.)

       a     jemdi                      koŋgo                       jondo
       ART.  hippopotamus + SG.   LONG DET. NON-HUM. SG.   rope + SG.

       'When that hippopotamus had made some ropes he took the elephant's rope
       and went and tied (it) to that hippopotamus's rope.'

(611)  go                      na   a    tɔka  wɛɛga  kɛŋ
       PRON. 3SG. NON-HUM.  see  ART.  deer  corpse  DET. DIMIN. SG.

       'He saw that deer's corpse.'

There are no formal differences between the pronominal and adjectival forms, therefore §2.1.2.5.8.1 is omitted.

### 2.1.2.6 Interrogative pronouns and other question words

### 2.1.2.6.1 Interrogative pronouns

### 2.1.2.6.1.1 Types of interrogative pronoun

### 2.1.2.6.1.1.1 General

There exist both a singular and a plural form corresponding to English *who* and one (singular only) corresponding to *what*, all of which are listed in (612). No non-human plural or diminutive form exists. The word *ase* is phonologically disharmonic, indicating that it the initial *a* may be the article. Since §1.1.1.2.2.1.1 contains many examples, no further ones will be given here.

(612)   *Words for the interrogative pronouns 'who' and 'what'*

|  | singular | plural |
|---|---|---|
| *human* | ala | alama |
| *non-human* | ase | --- |

## 2.1.2.6.1.1.2 Selective (from a group)

The interrogative pronoun corresponding to English *which (one)* inflects with the full range of 5 number-cum-humanness-cum-diminutive combinations, as given in (613). These words are phonologically disharmonic, which means that what look like the suffixes -*dɪ*, -*ba*, -*gʊ*, -*hɛ̃* and -*ga* were once independent words. Moreover, the question word *nde* 'where' is phonologically very similar to the first part of the words in (613). The consonant which is realized as a homorganic nasal before the voiced stops in all of the other forms is completely missing before the *h* of *ndeehɛ̃*.

(613)   *Words for the selective interrogative pronoun and adjective 'which (one)'*

|  | singular | plural |
|---|---|---|
| *human* | ndeendɪ | ndeemba |
| *non-human* | ndeeŋgʊ | ndeehɛ̃ |
| *diminutive* | ndeeŋga | --- |

Since only one example of this type is given in Chapter 1, it is repeated here for convenience as (614).

(614)   a       bara            hoŋ            ndeendɪ        də             boŋ
        ART.   husband + SG.   DET. HUM. SG.   which + HUM.   PRON. 3SG. HUM.   love
                                               SG.

        də                  kɛ̃
        PRON. 3SG. HUM.     surpass

        'That husband — which one (of his wives) did he love most? *(Lit.:* 'That husband — which did he love she surpasses.'*)*

## 2.1.2.6.1.1.3 Other types

There are no other distinct types of interrogative pronoun. However, the interrogative pronoun *ase* 'what' can also be used as the first member of a compound NP, as shown in (615). The structure *ase*+N means 'what kind of N'.

(615)  ase         faĩ        də                       panɛ            a      bi
       what (QU.)  porridge   PRON. 3SG. HUM.          give + PAST     ART.   child + SG.
       hoŋ
       DET. HUM. SG.

       'What kind of porridge did she give to the child?'

### 2.1.2.6.1.2 Number marking in interrogative pronouns

### 2.1.2.6.1.2.1 Similarities between number marking in the interrogative pronouns and in nouns

The number marking in interrogative pronouns is noun-like for the general interrogative word *ala*, PL. *alama* 'who?' but pronoun-like for the selective interrogatives.

### 2.1.2.6.1.2.2 Details of the differences

There is no distinction of noun class, but only (maximally) one of number-cum-humanness (both singular and plural), plus an additional singular (but not plural) category of diminutive, resulting in the 5 categories given in table (613) above for the selective interrogative pronoun.

However, the general interrogative pronouns have an impoverished system of contrasts, with a number distinction in the human pronoun only (*ala*, SG. vs. *alama*, PL.) but only a singular of the non-human pronoun *ase* and no diminutive interrogative at all.

The 'suffixes' used with the interrogative pronoun, which are ATR-disharmonic and therefore, at least phonologically, independent words, are identical with the clitic personal pronouns.

### 2.1.2.6.1.3 Class marking in interrogative pronouns

The class marking in the interrogative pronouns was described immediately above in §2.1.2.6.1.2.2 — i.e. there is nowhere near the richness of the noun class system. §2.1.2.6.1.3.1–2 are therefore omitted. Since Koromfe has no cases and no other grammatical categories are marked in the interrogative pronouns, §2.1.2.6.1.4–5 are also omitted.

### 2.1.2.6.1.6 Adjectival use of the interrogative pronouns

The selective interrogative *ndeendɪ* etc. is also used adjectivally (see §1.1.1.2.2.1.3 above for examples); the general interrogative pronouns *ala* etc. can be the first member of a genitival compound noun construction,

but cannot be used adjectivally. There are no special adjectival forms, therefore §2.1.2.6.1.6.1 is omitted.

*2.1.2.6.2 Other question words*

There is never any differences between the forms of question words used in direct and indirect questions. The other question words are listed in table (616).

(616)　*Other question words*

| question word | gloss | question word | gloss |
|---|---|---|---|
| nde | 'where' | ɪkɔl | 'how much' |
| ase ni | 'why' (*lit.:* 'for what')[86] | kãã | 'how' |
| sefu | 'when' | nãŋkãã | 'how' |

　　The word *sefu* 'when' may be related to *ase* 'what', but I have been unable to locate any source for the *fu* part of the word.

　　The *ɪ* of *ɪkɔl* seems to be the same morpheme (possibly the 'basic non-human' plural suffix -*ɪ* used as a prefix) which can be found at the beginning of all cardinal numerals from 2 to 9.

　　The word *nãŋkãã* looks like a compound of *naN* (found in the deictics *nandɪ* and *naŋsa* — cf. §2.1.1.10.1 above) and a reduced version of the word *kãã*; in other words, the two words for 'how' are basically the same word.

*2.1.2.7 Relative pronouns and other relative words*

*2.1.2.7.1 Special relative pronouns*

Only one of the relative pronouns, the human plural form *bɛnəma* has no other usage in the language.

*2.1.2.7.1.1 Types of relative pronouns*

*2.1.2.7.1.1.1 Restrictive*

The relative pronouns *ala* and *bɛnəma* are specific as to their humanness and number. The 'non-specific' relative pronoun *kɔ̃N* is morphologically invariant in all its many usages; it can also be used in place of either of the specific relative pronouns *ala* or *bɛnəma*.

(617)    *The relative pronouns*

| form | number and humanness | other use of the word |
|------|----------------------|------------------------|
| ala | HUMAN SINGULAR | interrogative pronoun 'who (sg.)' |
| bɛnǝma | HUMAN PLURAL | (*none*) |
| kɔN | NON-HUMAN or non-specific (including HUMAN) | conjunction 'when, since' |
| kɔ | SENTENCE RELATIVE | adverb 'then; in any case' |

### 2.1.2.7.1.1.2 Non-restrictive

There are no non-restrictive relative clauses. There are also no other types of relative pronoun, therefore §2.1.2.7.1.1.3 is omitted.

### 2.1.2.7.1.2 Number marking in relative pronouns

Only the human specific relative pronoun *ala* (SG.), *bɛnǝma* (PL.) are marked for number; the others are not. The number marking in this word is non-like, i.e. it involves number only, and not class, humanness or diminutive (the distinctions found in other types of pronouns).

### 2.1.2.7.1.2.1 Similarities between the number marking in relative pronouns and in nouns

Only one relative pronoun has a singular/plural distinction, namely *ala*, PL. *bɛnǝma*, but it is clearly suppletive.

### 2.1.2.7.1.2.2 Details of the differences

The only singular-plural pair to which the number distinction is relevant, *ala*, PL. *bɛnǝma*, displays class suffixes which can be analysed as being extremely close the sg. [a], PL. [ama] variant of the 'human' class *ɔ/ba*. However, the word *bɛnǝma* is not *\*bɛnama* (which would be the exact phonological form required for this nominal sub-class), and obviously, its stem is different from that of *ala*.

The word *bɛnǝma* has a strong formal resemblance to the HUMAN PLURAL determiner/demonstrative *bɛŋ*. However, since there are no other comparable relative pronouns, speculations about the source of *bɛnǝma* are not going to lead very far.

There is no class distinction in the relative pronouns, there is no case in the language, and no other grammatical categories marked are in the

relative, and the relative pronouns cannot be used adjectivally — therefore §2.1.2.7.1.3–5 are omitted.

*2.1.2.7.2 Other relative words*

There are no other relative words. See §2.1.2.7.3 below for relatives of place and time.

*2.1.2.7.3 Relatives of place and time*

There are no independent relatives for place or time, and the corresponding question words *nde* 'where' and *sefu* 'when' can never be used as relatives.

Relatives of place and time can be expressed using nouns expressing the notions 'place' and 'time' such as *tike* 'place' and *wa(ŋ)katɩ*[87] 'time, hour' or *sɔɔnɛ* 'time' and the normal non-specific relative *kɔN*. Also, the word for 'place' and 'time' can be omitted, so that the relative pronoun *kɔN* alone takes on the meaning of the relative pronoun 'where' or 'when'. A further possibility for relatives of time only is the use of a conditional adverb clause, as described in §1.1.2.4.2.1 above.

**2.1.3 Verbs**

Before discussing the inflectional morphology of the verb in detail, I should mention that, excluding the gerund or deverbal action noun, there are only four inflectional morphological categories in Koromfe: namely

1.  the UNMARKED verb form (i.e. basically the bare verb stem, with some phonological adjustments)
2.  the PAST tense form (suffix -*ɛ* added to the verb stem)
3.  the DURATIVE aspect (normally suffix -*d* added to the verb stem, but with various phonological variants and some other suffixes or suppletion)
4.  the PROGRESSIVE aspect (formed from the DURATIVE by the addition of long -*aa* — no exceptions if a DURATIVE form exists).

This formal poverty should be borne in mind when reading the rest of this section; my endeavour is mainly to show how the various morphological functions can be allotted to the 4 available categories (if this is possible).

## 2.1.3.1 Voice

## 2.1.3.1.1 Passive

Koromfe has no passive morphology as such; the verb forms which are found in the few passive usages that exist in the language are morphologically identical to their active counterparts. They can only be used when the context precludes possible ambiguity.

### 2.1.3.1.1.1 Personal passive

### 2.1.3.1.1.1.1 Direct object of the active as the subject of the passive

In this type of 'passive' there is no change in the morphology. The direct object moves from the (postverbal) object position to the (preverbal) subject position. Sentence (619) is the passive version of sentence (618). It is not possible to express the agent NP within a passive sentence.

(618)　ba　　　　　lebe　　　dãŋ　　　naŋsa　la
　　　　PRON. 3PL. HUM.　build + PAST　house + SG.　DEICTIC　with (PREP.)

　　　　(a)　　　　geŋʌ
　　　　ART. (*elided*)　stone + PL.

　　　　'They built this house with stones.'

(619)　dãŋ　　　　naŋsa　lebe　　　la　　　　(a)　　　　geŋʌ
　　　　house + SG.　DEICTIC　build + PAST　with (PREP.)　ART. (*elided*)　stone + PL.

　　　　'This house was built with stones.' *(Or:* 'This house is built of stones.'*)*

### 2.1.3.1.1.1.2 Indirect object of the active as subject of the passive

I have been unable to elicit such a construction because there always seems to be a verb with the right semantics to make an indirect-object passive avoidable (e.g. 'he received X' instead of 'he was given X').

　　　No other constituent of the active appears as subject of the passive, there is no impersonal passive, and the subject of the active sentence can never be expressed in a sentence with a passive reading, therefore §2.1.3.1.1.1.3 and §2.1.3.1.1.2–3 are omitted.

### 2.1.3.1.1.4.1 Tenses and aspects of passives

All four tense/aspect forms of the verb are available in sentences with a passive and an active reading.

## 2.1.3.1.1.4.2 Dynamic vs. static passive

This distinction can be expressed by the normal distinction between the PROGRESSIVE and UNMARKED verb forms (i.e. imperfective vs. perfective aspect). However, I do not consider the relevant distinction here to be one of dynamic vs. static, but rather of aspect — i.e. a 'static' sentence like (620) refers to a completed past action rather than a current state, while (621) refers to an incomplete action. The addition of the adverb *ɪɪsa* 'now' and pronominal repetition of the subject with *gʊ* are reflexes of a focus on present time reference, and have nothing to do with dynamic vs. static passive.

(620)    a    dãŋ        koŋ              lebu
          ART.  house + SG.  DET. NON-HUM. SG.  build

'The house was built.'

(621)    a    dãŋ        koŋ              ɪɪsa          gʊ
          ART.  house + SG.  DET. NON-HUM. SG.  now (ADV.)  PRON. 3SG. NON-HUM

          lebru
          build + DUR.

'The house is now (in the course of) being built.'

## 2.1.3.1.2 Means of decreasing the valency of a verb

It seems to be possible to omit almost any direct or indirect object of any verb in Koromfe with no change to the verbal morphology. There is no other way to decrease the valency of a verb; but there exist suffixes which seem to increase its valency (cf. §2.1.3.1.3 below).

## 2.1.3.1.2.1 Formation of an intransitive verb from a transitive verb by not specifying the subject of the transitive

Such changes always involve the selection of different verbs, as in examples (622). There is no way to add an agent to sentence (623).

(622)    a    hem       koŋ              gɔl
          ART.  water (SG.)  DET. NON-HUM. SG.  boil (*intrans.*)

'The water is boiling.'

(623)    bʌdini          homs         a    hem       koŋ
          (*proper name*)  heat (*trans.*)  ART.  water (SG.)  DET. NON-HUM. SG.

'Badini boils the water.'

*2.1.3.1.2.2 Formation of an intransitive verb from a transitive verb by not specifying the direct object*

This process, if such it is, is the normal case in Koromfe. The direct object is simply omitted without any change in the morphology.

*2.1.3.1.2.3 Formation of a reciprocal intransitive verb by expressing both subject and direct object of the transitive as subject*

In such sentences the direct object can be omitted altogether or replaced by the reciprocal pronoun *dombʌ*. In neither case does the verb morphology change.

*2.1.3.1.2.4 Other means of decreasing the valency of a verb*

There are no other means of decreasing the valency of a verb

*2.1.3.1.3 Means of increasing the valency of a verb*

*2.1.3.1.3.1.1 Causative verbs from intransitive verbs*

Some intransitive verbs can be used causatively with no morphological change. However, the suffixes *-g*, *-s*, *-t* and *-Vm* (where *V* is a harmonized vowel) are also used to form causatives, as exemplified in (624).

(624)   *Verbs with causative suffixes*

| basic verb stem (intrans.) | gloss of basic verb | causa-tive suffix | causative verb (transitive) | gloss of causative verb |
|---|---|---|---|---|
| hib- | 'be full' | -∅ | hib-[88] | 'fill' |
| hoi- | 'lie down' | -g | hoig- | 'lay down' |
| hʋl- | 'give birth' | -g | hʋləg- | 'help someone give birth'[89] |
| jir- | 'go down' | -g | jirg- | 'bring down' |
| dɔɪ- | 'be long' | -s | dɔɪs- | 'lengthen' |
| hɛ̃- | 'be distant' | -s | hɛ̃s- | 'distance oneself, go away' |
| kãŋ- | 'be hard' | -s | kãŋs- | 'harden' |
| sɪg- | 'be quiet' | -t | sɪgt- | 'calm' |
| lag- | 'be afraid' | -(V)m | lagam- | 'frighten' |

Unfortunately, there also exist a number of verbs with stems that seem to contain these suffixes, but which lack a non-causative form without the suffix, or whose semantics is not causative; therefore the distinction of causative vs. non-causative is not very consistent throughout the lexicon,

even though cases like those given in (624) are quite clear. Moreover, these formations are so idiosyncratic that they are probably best considered to be derivational rather than inflectional.

### 2.1.3.1.3.1.2 Causative verbs from transitive verbs

It is difficult to find a clear case where this happens (morphologically); if it does, then with the same suffixes given in (624) above.

### 2.1.3.1.3.1.3 Causative verbs from ditransitive verbs

There are no cases where causative verbs are formed from ditransitive verbs.

### 2.1.3.1.3.2 Agentivity of the causee

There is no formal difference depending on the agentivity or otherwise of the causee.

### 2.1.3.1.3.3 Omission of the causee

Omission of the causee is not possible.

### 2.1.3.1.4 Special reflexive or reciprocal verb forms

There are no special reflexive or reciprocal verb forms.

### 2.1.3.2 Tense

### 2.1.3.2.1 Occurring tense distinctions

### 2.1.3.2.1.1 Universal

The UNMARKED form of the verb is typically used for universal tense when no particular aspect is expressed. However, the future typically has progressive aspect, and so UNMARKED verb forms for the future are rare.

### 2.1.3.2.1.1.1 Formation of the UNMARKED verb form

The formation of the UNMARKED tense/aspect, in all regular and most irregular cases, involves nothing more than the phonological adjustment of the verb stem; i.e. the final vowels given in parentheses in (625), which seem at first sight to be suffixes, are not suffixes at all. Similar vowels are also found in the DURATIVE aspect forms; they appear only when the verb is in phrase-final position and their quality is completely predictable from

the phonological shape of the verb stem. (Cf. §3.2.6.4.2.2 below on this phonological process.)

### 2.1.3.2.1.1.1.1 Stems of the shape CV or CVV

A verb such as *ta*, *j̃ɛ̃ɛ̃* or *saɪ* (phonetically monosyllabic, with a stem-final vowel) always have their bare stem *ta*, *j̃ɛ̃ɛ̃* or *saɪ* respectively as their UNMARKED form because all vowels are permitted phrase-finally. Examples of further verbs of this type are given in (625).

(625)   *Some verbs with CV and CVV stems*[90]

| gerund | stem | progressive | past | unmarked | durative | gloss |
|---|---|---|---|---|---|---|
| taam | ta | taraa | taɛ / ta | ta | tar(ɪ) | 'shoot' |
| tãam | tã | tãnaa | taɛ̃ / tã | tã | tãn(ɛ) | 'contradict' |
| nɛ̃ɛ̃m | nɛ̃ | nɛ̃naa | nɛ̃ | nɛ̃ | nɛ̃n(ɛ) | 'defecate' |
| sajam | saɪ | saɪraa | sajɛ | saɪ | saɪr(ɪ) | 'separate' |
| dɛɛm | dɪ | dɪraa | dɛ | dɪ | dɪr(ɪ) | 'eat / enjoy' |
| jejam | jɛɪ | jɛɪraa | jɛjɛ | jɛɪ | jɛɪr(ɪ) | 'waste' |
| j̃ɛ̃j̃ãm / j̃ɛ̃ɛ̃m | j̃ɛ̃ɪ̃ / j̃ɛ̃ɛ̃ | j̃ɛ̃ɪ̃naa / j̃ɛ̃ɛ̃naa | j̃ɛ̃j̃ɛ̃ / j̃ɛ̃ɛ̃ | j̃ɛ̃ɪ̃ / j̃ɛ̃ɛ̃ | j̃ɛ̃ɪ̃n(ɛ) / j̃ɛ̃ɛ̃n(ɛ) | 'catch' |
| leem | li | lirʌʌ | lee | li | lir(i) | 'forget' |
| dɔ̃j̃ãm | dɔ̃ɪ̃ | dɔ̃ɪ̃naa | dɔ̃j̃ɛ̃ / dɔ̃ɛ̃ | dɔ̃ɪ̃ | dɔ̃ɪ̃n(ɔ̃) | 'join' |
| hɔ̃j̃ãm | hɔ̃ɪ̃ | hɔ̃ɪ̃naa | hɔ̃ɛ̃ | hɔ̃ɛ̃ | hɔ̃ɪ̃n(ɔ̃) | 'roast' |
| sɔjam | sɔɪ | sɔɪraa | sɔjɛ | sɔɪ | sɔɪr(ɪ) | 'split' |
| dɔ̃ɔ̃m | dɔ̃ | dɔ̃naa | dɔ̃ | dɔ̃ | dɔ̃n(ɔ̃) | 'dream' |
| gɔɔm | gɔ | gɔraa | gɔɛ | gɔ | gɔr(ʊ) | 'go back' |
| kɔɔm | kʊ | kʊraa | kɔɛ / kɔ | kʊ | kʊr(ʊ) | 'kill' |
| toom | tu | turʌʌ | toe | tu | tur(u) | 'coat' |

### 2.1.3.2.1.1.1.2 Stems of the shape CVC or CVCVm

Phonetically monosyllabic verbs whose stem ends in a permissible phrase-final consonant (*l, m, n* or *ŋ*) such as *gel, kam, gan* and *gaŋ* in (626) also have an UNMARKED form which is identical to their lexical stem. The same goes for phonetically disyllabic verbs ending in *m*, such as *zagam*, though with the caveat that the second vowel is in fact harmonized (to a non-high melodic copy of the first vowel — cf. §3.2.6.4 on vowel harmony and Rennison (1993) on the analysis of these and phonologically similar verb forms). Stems of the shape CVCV*n* or CVCV*l* do not follow this pattern; cf. §2.1.3.2.1.1.1.4 below.

(626)   *C-final stems with final phonetic C in the* UNMARKED *form*

| gerund | stem | progressive | past | unmarked | durative | gloss |
|--------|------|-------------|------|----------|----------|-------|
| gelʌm | gel | gellʌʌ | gele | gel | gell(i) | 'know' |
| kamam | kam | kammaa | kamɛ | kam | kamm(ɔ) | 'squeeze' |
| zagamam | zagam | zagamaa | zagamɛ | zagam | zagam(ɔ) | 'stir' |
| ganam | gan | gannaa | ganɛ | gan | gann(ɛ) | 'bandage' |
| kãnam | kãd | kãtaa | kãnɛ | kãn | kãt(ɪ) | 'detour' |
| manam | man | mannaa | manɛ | man | mann(ɛ) | 'accustom' |
| gaŋam | gaŋ | gaŋənaa | gaŋɛ | gaŋ | gaŋən(ɛ) | 'refuse' |
| nɛŋam | nɛŋ | nɛŋənaa | nɛŋɛ | nɛŋ | nɛŋən(ɛ) | 'water' |
| kɔŋam | kɔŋ | kɔŋənaa | kɔŋɛ | kɔŋ | kɔŋən(ɔ) | 'age' |

However, CVC stems ending in *l* (more usually) have an epenthetic vowel in the UNMARKED form (cf. e.g. *leli* and *pɪlɪ* in (627) below).

### 2.1.3.2.1.1.1.3 Stems with a final obstruent

Verbs whose stem has a final obstruent, and also most of the verbs with the stem shape CV*l*, have a final 'epenthetic' vowel in phrase-final position. A relatively large number of relevant examples is given in (627) to show what happens to a large variety of phonological stem shapes. The quality of the 'epenthetic' vowel is phonologically fully automatic (both in the UNMARKED and in the DURATIVE verb form), and is indicated in parentheses in (627); the vowel is high after non-nasal consonants and mid after nasals.[91] It is back if the first stem vowel is back (e.g. *gond(u)* in (627)) or if a labial consonant is present between it and the preceding vowel (e.g. *sɪb(ʋ)* in (627)); otherwise it is front (e.g. *kɛnd(ɪ)* in (627)). ATR harmony applies.

(627)   *Stems with a final obstruent (and therefore an 'epenthetic' vowel in the*
        UNMARKED *and* DURATIVE *forms)*

| stem | gerund | prog. | past | unm. | durative | gloss |
|------|--------|-------|------|------|----------|-------|
| /sɪb/ | sɪbam | sɪbraa | sɪbɛ | sɪb(ʋ) | sɪbr(ʋ) | 'die' |
| /zamb/ | zambam | zambraa | zambɛ | zamb(ʋ) | zambr(ʋ) | 'deceive' |
| /kɛnd/ | kɛndam | kɛndraa | kɛndɛ | kɛnd(ɪ) | kɛndr(ɪ) | 'finish' |
| /gond/ | gondʌm | gondrʌʌ | gonde | gond(u) | gondr(u) | 'depart' |
| /wuf/[92] | wufʌm | wufrʌʌ | wufe | wuf(u) | wufr(u) | 'borrow' |
| /kɛsVŋg/ | kɛsɛŋgam | kɛsɛŋgraa | kɛsɛŋgɛ | kɛsɛŋg(ɪ) | kɛsɛŋgr(ɪ) | 'mix' |
| /tɛŋg/ | tɛŋgam | tɛŋgraa | tɛŋgɛ | tɛŋg(ɪ) | tɛŋgr(ɪ) | 'accompany' |

| stem | gerund | prog. | past | unm. | durative | gloss |
|------|--------|-------|------|------|----------|-------|
| /hɔ̃ŋg/ | hɔ̃ŋgam | hɔ̃ŋgraa | hɔ̃ŋgɛ | hɔ̃ŋg(ʋ) | hɔ̃ŋgr(ʋ) | 'point' |
| /sag/ | sagam | sagraa | sagɛ | sag(ɪ) | sagr(ɪ) | 'put away' |
| /lig/ | ligʌm | ligrʌʌ | lige | lig(i) | ligr(i) | 'cover' |
| /hoig/ | hoigʌm | hoigrʌʌ | hoige | hoig(i) | hoigr(i) | 'lay down' |
| /bidg/ | birgʌm | birgrʌʌ | birge | birg(i) | birgr(i) | 'blacken'[93] |
| /sʋdg/ | sʋrgam | sʋrgraa | sʋrgɛ | sʋrg(ʋ) | sʋrgr(ʋ) | 'drop' |
| /pasg/ | pasgam | pasgraa | pasgɛ | pasg(ɪ) | pasgr(ɪ) | 'split' |
| /kek/ | kekʌm | kekrʌʌ | keke | kek(i) | kekr(i) | 'take' |
| /sɛ̃k/ | sɛ̃kam | sɛ̃kraa | sɛ̃kɛ | sɛ̃k(ɪ) | sɛ̃kr(ɪ) | 'split' |
| /hɔ̃k/ | hɔ̃kam | hɔ̃kraa | hɔ̃kɛ | hɔ̃k(ʋ) | hɔ̃kr(ʋ) | 'scratch' |
| /lel/ | lelʌm | lellʌʌ | lele | lel(i) | lell(i) | 'sing' |
| /pɪl/ | pɪlam | pɪllaa | pɪlɛ | pɪl(ɪ) | pɪll(ɪ) | 'trample flat' |
| /zull/ | zullʌm | zullrʌʌ | zulle | zull(u) | zullr(u) | 'bow' |
| /tad/ | taram | tataa | tarɛ | tar(ɪ) | tat(ɪ) | 'plaster' |
| /fɛd/ | feram | fetaa | ferɛ | fer(ɪ) | fet(ɪ) | 'cultivate' |
| /tʋd/ | tʋram | tʋtaa | tʋrɛ | tʋr(ʋ) | tʋt(ʋ) | 'introduce' |
| /haŋs/ | haŋsam | haŋsraa | haŋsɛ | haŋs(ɪ) | haŋsr(ɪ) | 'arrange' |
| /toŋs/ | toŋsʌm | toŋsrʌʌ | toŋse | toŋs(u) | toŋsr(u) | 'become sour' |
| /has/ | hasam | hasraa | hasɛ | has(ɪ) | hasr(ɪ) | 'sweep' |
| /kãs/ | kãsam | kãsraa | kãsɛ | kãs(ɪ) | kãsr(ɪ) | 'rip apart' |
| /wʋbs/ | wʋbsam | wʋbsraa | wʋbsɛ | wʋbs(ʋ) | wʋbsr(ʋ) | 'vomit' |
| /dɛ̃s/ | dɛ̃sam | dɛ̃sraa | dɛ̃sɛ | dɛ̃s(ɪ) | dɛ̃sr(ɪ) | 'draw (line)' |
| /kɛ̃s/ | kɛ̃sam | kɛ̃sraa | kɛ̃sɛ | kɛ̃s(ɪ) | kɛ̃sr(ɪ) | 'surpass' |
| /dags/ | dagsam | dagsraa | dagsɛ | dags(ɪ) | dagsr(ɪ) | 'add' |
| /dɛɪs/ | dɛɪsam | dɛɪsraa | dɛɪsɛ | dɛɪs(ɪ) | dɛɪsr(ɪ) | 'be able to' |
| /jɪs/ | jɪsam | jɪsraa | jɪsɛ | jɪs(ɪ) | jɪsr(ɪ) | 'draw (water)' |
| /jis/ | jisʌm | jisrʌʌ | jise | jis(i) | jisr(i) | 'suffice' |
| /dɔɪs/ | dɔɪsam | dɔɪsraa | dɔɪsɛ | dɔɪs(ɪ) | dɔɪsr(ɪ) | 'lengthen' |
| /fɔ̃ɪs/ | fɔ̃ɪsam | fɔ̃ɪsraa | fɔ̃ɪse | fɔ̃ɪs(ʋ) | fɔ̃ɪsr(ʋ) | 'be afraid' |
| /hʋɪs/ | hʋɪsam | hʋɪsraa | hʋɪse | hʋɪs(ʋ) | hʋɪsr(ʋ) | 'humiliate' |
| /hals/ | halsam | halsraa | halsɛ | hals(ɪ) | halsr(ɪ) | 'slide' |
| /zɪgams/ | zɪgamsam | zɪgamsraa | zɪgamsɛ | zɪgams(ʋ) | zɪgamsr(ʋ) | 'dirty' |
| /tams/ | tamsam | tamsraa | tamsɛ | tams(ʋ) | tamsr(ʋ) | 'lose' |
| /hɛ̃ms/ | hɛ̃msam | hɛ̃msraa | hɛ̃msɛ | hɛ̃ms(ʋ) | hɛ̃msr(ʋ) | 'meet' |
| /pʌ̃ds/ | pʌ̃rsʌm | pʌ̃rsrʌʌ | pʌ̃rse | pʌ̃rs(i) | pʌ̃rsr(i) | 'widen' |
| /kʌus/ | kʌusʌm | kʌusrʌʌ | kʌuse | kʌus(u) | kʌusr(u) | 'shout' |
| /hubt/ | hubtʌm | hubtrʌʌ | hubte | hubt(u) | hubtr(u) | 'get up early' |
| /nɛŋet/ | nɛŋetam | nɛŋetraa | nɛŋetɛ | nɛŋet(ɪ) | nɛŋetr(ɪ) | 'oblige, force' |

273

| stem | gerund | prog. | past | unm. | durative | gloss |
|------|--------|-------|------|------|----------|-------|
| /kɛt/ | kɛtam | kɛtraa | kɛtɛ | kɛt(ɪ) | kɛtr(ɪ) | 'open' |
| /zʊɡt/ | zʊɡtam | zʊɡtraa | zʊɡtɛ | zʊɡt(ʊ) | zʊɡtr(ʊ) | 'pull (hard)' |
| /haɪt/ | haɪtam | haɪtraa | haɪtɛ | haɪt(ɪ) | haɪtr(ɪ) | 'remember' |
| /ɡɔkt/ | ɡɔktam | ɡɔktraa | ɡɔktɛ | ɡɔkt(ʊ) | ɡɔktr(ʊ) | 'peck' |
| /mɛnt/ | mɛntam | mɛntraa | mɛntɛ | mɛnt(ɪ) | mɛntr(ɪ) | 'assemble' |

*2.1.3.2.1.1.1.4 Stems of the shape CVCVl*

There exists a special, fairly common class of verbs with a suffix-like -*Vl* ending (which has no special significance) whose UNMARKED form, instead of adding an epenthetic vowel, loses its final *l*. Moreover, the DURATIVE form looks exactly like what we might expect for the UNMARKED form if these verbs patterned like those in §2.1.3.2.1.1.1.3 above. Examples are given in (628).

The stems of these verb forms have 3 phonological variants — all of them fully automatic: *CVCVd* when the second consonant is *l* or *r* (e.g. *giled-* and *fered-* respectively), *CVCVn* when the second consonant is nasal and not followed by a homorganic stop (e.g. *haman-* and *fɔɲɔ̃n-*, but *sumbol-* not *sumbon-*), and otherwise *l* (e.g. *dagal-*). I therefore consider -*Vl* to be the lexical shape of all such verbs. The reflex of the *l* is dropped in all UNMARKED forms. The vowel of the 2nd syllable is phonologically completely predictable; I therefore consider it to be (qualitatively) epenthetic. It is a copy of the vowel of the first syllable, but with lowering of a high vowel to mid (e.g. *giled-*, not *\*gilid-*). This colouring is exceptionless for all phrase-internal 'epenthetic' vowels in Koromfe, and does not change when one of these truncated UNMARKED verb forms occurs phrase-finally. For a more thorough treatment of this class of verbs and related phonological phenomena, see §3.2.6.4.2 below and Rennison (1993).

(628)    *Stems with final phonetic* -Vd, -Vl *or* -Vn *(where V is an 'epenthetic' 2nd syllable vowel)*

| stem[94] | gerund[95] | prog. | past[95] | unm. | durative | gloss |
|----------|------------|-------|----------|------|----------|-------|
| /ɡilVl/ | ɡiledʌm | ɡiledʌʌ | ɡilede | ɡile | ɡiled(i) | 'walk' |
| /ferVl/ | feredʌm | feredʌʌ | ferede | fere | fered(i) | 'whistle' |
| /ɡaŋɡVl/ | ɡaŋɡalam | ɡaŋɡalaa | ɡaŋɡalɛ | ɡaŋɡa | ɡaŋɡal(ɪ) | 'refuse' |
| /daɡVl/ | daɡ(a)lam | daɡalaa | daɡ(a)lɛ | daɡa | daɡal(ɪ) | 'wait for' |
| /sebVl/ | seb(e)lʌm | sebelʌʌ | seb(e)le | sebe | sebel(i) | 'swear' |

| stem[94] | gerund[95] | prog. | past[95] | unm. | durative | gloss |
|---|---|---|---|---|---|---|
| /sumbVl/ | sumbolʌm | sumbolʌʌ | sumbole | sumbo | sumbol(u) | 'cover' |
| /gɔndVl/ | gɔndɔlam | gɔndɔlaa | gɔndɔlɛ | gɔndɔ | gɔndɔl(ʊ) | 'deform' |
| /tɔfVl/ | tɔfɔlam | tɔfɔlaa | tɔfɔlɛ | tɔfɔ | tɔfɔl(ʊ) | 'cook' |
| /hamVl/ | ham(a)nam | hamandaa | ham(a)nɛ | hama | hamand(ɪ) | 'believe' |
| /fɔ̃ŋVl/ | fɔ̃ŋ(ɔ̃)nam | fɔ̃ŋɔ̃ndaa | fɔ̃ŋ(ɔ̃)nɛ | fɔ̃ŋɔ̃ | fɔ̃ŋɔ̃nd(ʊ) | 'rest' |
| /hɔ̃ŋVl/ | hɔ̃ŋ(ɔ̃)nam | hɔ̃gfaa | hɔ̃ŋ(ɔ̃)nɛ | hɔ̃ŋɔ̃ | hɔ̃gf(ʊ) | 'own' |

### 2.1.3.2.1.1.1.5 Irregular formations

Some quite common verbs have an UNMARKED form which is (idiosyncratically) phonologically reduced, usually by the omission of an expected [r] or [l], e.g. *be* 'come' for expected *bel* or *ben* (cf. GERUND *bel-am*, DURATIVE *bellɪ*, PAST *ben-ɛ*), *bo* 'say' for expected *bol*, *tɛ* 'arrive' for expected *terɪ* (cf. PAST *ter-ɛ*).

### 2.1.3.2.1.2 Present

Any inflectional form of the verb apart from the PAST can be used for the present tense, but see §2.1.3.3 below on aspect.

### 2.1.3.2.1.3 Past

The past tense, when relevant and aspectually appropriate (perfective aspect), is marked by the PAST form of the verb. However, all the other 3 inflectional forms of the verb (UNMARKED, DURATIVE and PROGRESSIVE) can be used for past time reference.

### 2.1.3.2.1.3.1 Further subdivisions according to degree of remoteness

There are no further subdivisions of the past.

### 2.1.3.2.1.3.2 Relative tenses (pluperfect, future-in-the-past)

There is no special tense for this usage; however, the most common usage of the PAST form is for relative rather than absolute past (similar to the English pluperfect).

### 2.1.3.2.1.3.3 Formation of the PAST tense

The PAST inflection is an *-ɛ* suffix, which is added to the bare verb stem. ATR harmony applies. Some sample past tense forms were given in (625)–(628) above. When the verb ends in a vowel, assimilations of high vowels

to mid are phonologically obligatory (e.g. *lee* for expected *lie* 'forget', *kɔɛ* for *kʊɛ* 'kill' in (625) above); this sometimes leads to homophony with the UNMARKED form when the verb stem ends in *e* or *ɛ* (e.g. *nɛ̃* 'rain' UN-MARKED and PAST). Also, the *-ɛ* suffix after vowels is very weak and often dropped (e.g. *kɔ* for *kɔɛ* for *kʊɛ* 'kill' in (625) above).[96]

Verbs with a stem of the shape *CVCVl* exemplified in (628) above take the suffix *-ɛ* in all 3 variants of the *Vl* suffixoid,[97] e.g. *gil(e)de* from *giled-* 'walk', *dag(a)lɛ* from *dagal-* 'wait for' and *ham(a)nɛ* from *haman-* 'believe'. However, the vowel of the second syllable is extremely weak, and drops completely in fast speech.

### 2.1.3.2.1.4 Future

Future tense can be expressed by the use of the PROGRESSIVE aspect or an auxiliary verb such as *zɔmmɔ̃* 'want' or *bɛlam* 'come'; however, there is no verbal inflection which primarily expresses future tense. Therefore §2.1.3.2.1.4.1–3 are inapplicable.

### 2.1.3.2.2 Tense distinctions in different moods and non-finite forms

There are no moods beyond indicative and imperative; the imperative does not distinguish any tenses. There are also no tense distinctions in non-finite verb forms.

### 2.1.3.2.3 Absolute vs. relative use of the tenses

There are no moods or non-finite verb forms which show tense distinctions, therefore §2.1.3.2.3.1 are inapplicable.

### 2.1.3.2.3.3 Main versus subordinate clause

The past tense is restricted in its usage mainly (though not exclusively) to subordinate clauses, where its tense is relative to the tense (or understood time) of the main clause (i.e. either pluperfect or conditional — cf. §1.1.2.4 above.)

### 2.1.3.3 Aspect

### 2.1.3.3.1 Perfect aspect

There is no perfect aspect. Therefore §2.1.3.3.1.1–4 are inapplicable.

*2.1.3.3.2 Aspect as different ways of viewing the duration of a situation*

*2.1.3.3.2.1 Types of aspect*

Koromfe has a major division between perfective and imperfective aspect, and within the imperfective aspect, between progressive and non-progressive (for which I keep the term 'durative' from previous descriptions, even though it is not completely accurate).

Thus, out of the 4 inflectional forms of the verb, the UNMARKED and the PAST verb forms are used when the aspect is perfective, and the DURATIVE and PROGRESSIVE verb forms when the aspect is imperfective, continuous, habitual or progressive. This categorial division coincides with the morphological bases of the verb forms: the UNMARKED and PAST forms are based on the verb stem, while the DURATIVE and PROGRESSIVE forms have an 'extended' stem which can be regular (by the addition of a -*d* suffix, with various phonological assimilations), semi-regular (by the unpredictable truncation of the end of the verb stem, then addition of an -*f* suffix), or irregular.

In other words, the UNMARKED verb form is the 'bare' perfective, and the PAST form is a variation on it which adds 'past tense'; the DURATIVE verb form is the 'bare' imperfective, and the PROGRESSIVE form is a variation on it which adds 'continuous aspect'. In each case, the 'variation' involves the addition of a vowel suffix. This is summarized in table (629).

(629)    *The four inflectional forms of the verb*

| *verb form* | *unmarked* | *past* | *durative* | *progressive* |
|---|---|---|---|---|
| *aspect:* | perfective | perfective | imperfective | imperfective |
| *base to which suffix is added:* | verb stem | UNMARKED form | stem + *d* **or** (truncated) stem + *f* **or irregular** | DURATIVE form |
| *suffix:* | $\emptyset^{98}$ | -*ɛ* | $\emptyset^{98}$ | -*aa* |
| *example:* | *gel* | *gel+e* | *gel+l(i)*[99] | *gel+l+ʌʌ* |

This means, of course, that the only verb form which marks tense (the PAST) can only be used with perfective aspect. Conversely, a verb bearing imperfective aspect (i.e. a DURATIVE or PROGRESSIVE) cannot bear any formal expression of tense.

### 2.1.3.3.2.1.1 Perfective (aoristic) aspect

Perfective aspect is expressed by the UNMARKED or by the PAST form of the verb. An example with the UNMARKED verb form is given in (630); examples with the PAST verb form were given in (618)–(619) above.

(630)  də                 kos(u)  vuugri
       PRON. 3SG. HUM.  cough   once

       'He coughed once.'

The extreme to which an UNMARKED verb form can be pushed is shown in (631), where the notions of 'past' and 'repetition' are expressed by adverbs. The use of the UNMARKED form emphasizes the perfective, i.e. individual nature of each cough; the normal way to express the notion of continual coughing would be the DURATIVE form, and continuous coughing the PROGRESSIVE.

(631)  də         .       kos(u)  nɛ̃ɛ̃             kallɛ
       PRON. 3SG. HUM.  cough   in the past (ADV.)   number (SG.)

       'He coughed (several times in the past).'

Some verbs have only perfective inflectional forms, and are only used in a perfective sense. Thus for example all three verbs meaning '(not) know' in (632) are used to mean '(not) know/remember at this moment'. In table (632) I have put the forms whose PAST status is not clear in the UNMARKED column.

(632)  *Verbs with no DURATIVE or PROGRESSIVE form*

| past | unmarked | gloss |
|------|----------|-------|
| --- | baĩ | 'not know' |
| --- | jãã | 'know' |
| --- | kɛ̃ | 'surpass'[100] |
| kore | koru | 'surround' |
| --- | ni / na / nãã | 'see, find, know' |
| --- | ŋgo / ŋgose | 'not be, not have' |

### 2.1.3.3.2.1.2 Imperfective aspect (a situation viewed with respect to its internal constituency)

Imperfective aspect is expressed by both the DURATIVE and the PRO-GRESSIVE forms of the verb. The imperfective aspect is even expressible in

the imperative, by using the DURATIVE instead of the UNMARKED verb form.

Formally, the DURATIVE and PROGRESSIVE verb forms always use the same base, even if this is different from the normal verb stem. Some verbs, given in (633), have only the two imperfective forms for semantic reasons.

(633)　*Verbs with no UNMARKED or PAST form*

| durative | progressive | gloss |
|----------|-------------|-------|
| fɛ̃fʊ | fɛ̃faa | 'continue' |
| fefu | fefʌʌ | 'live' |
| fɔ̃nnɔ̃ | fɔ̃nnaa | 'be afraid' |
| halfʊ | halfaa | 'own, keep' |
| hɪfʊ | hɪfaa | 'stand' |
| saɡfʊ | saɡfaa | 'crouch (stative)' |
| sɪɡfʊ | sɪɡfaa | 'be quiet' |
| w̃ɔ̃fʊ | w̃ɔ̃faa | 'have' |

The semantic distinction between DURATIVE and PROGRESSIVE is that the former can denote an action or state that is not necessarily ongoing at the time referred to, while the PROGRESSIVE always implies that the action or state is ongoing at the time referred to. In the absence of any overt or contextually implied time reference, the DURATIVE and PROGRESSIVE normally refer to present time.

*2.1.3.3.2.1.3 Habitual aspect*

Habitual aspect is not distinct from the imperfective in general; it usually requires the use of the DURATIVE or PROGRESSIVE. A typical example, in which both of these forms are used, is given in (634).

(634)  məkɔ        da      latə                dɪ              la    maa
       PRON. 1SG.   past    search + DUR.        PRON. 3SG. HUM.   but  NEG. PRON. 1SG.

       latə                 də              gɔɔnɛ          — ala
       search + DUR.         PRON. 3SG. HUM.  still (ADV.)    — who (SG.)

       kulomsər             a       fʊba          ba              sɪbrʊ
       pass under + DUR.     ART.    person + PL.   PRON. 3SG. HUM.  die + DUR.

       ba                   wɔ̃ŋgrə    ja        — maa             lata
       PRON. 3SG. HUM.       rot + DUR.  EMPH.     — NEG. PRON. 1SG.  search + PROG.

       hoŋ                  gɔɔnɛ
       DET. HUM. SG.        still (ADV.)

'I used to search for him, but I'm not searching for him any more. Someone who passes under people (and makes) them die and rot — I'm not going to search for him any more.'

*2.1.3.3.2.1.4 Continuous aspect (non-habitual imperfective aspect)*

It is not clear to me to what extent the verb form which I have termed 'PROGRESSIVE' is stative or non-stative; it seems to encompass both. In normal dynamic verbs with all 4 finite inflectional forms, continuous aspect is expressed by the PROGRESSIVE form (see also the next sub-section). As mentioned above, the PROGRESSIVE is formed from the DURATIVE by the addition of an -*aa* suffix.

It seems, however, that the 'progressive' suffix -*aa* could at one time attach to other bases than the DURATIVE, and that its basic meaning is continuous rather than progressive aspect. The majority of verbal adjectives have this same -*a(a)* ending in their PROGRESSIVE form (though sometimes no longer identifiable as a suffix), and aspectually, I think that this form comes closer to being continuous than progressive. A list of some typical verbal adjectives is given in (635) and two examples of their use in (636)–(637). (Cf. also §2.1.4.6.1 below.)

(635)  *Some verbal adjectives. (A more complete list is given in (667) below.)*

| *progressive* | *gloss* | *progressive* | *gloss* |
|---|---|---|---|
| dɔjaa | 'be long' | kanna | 'be bitter' |
| fɛləmaa | 'be narrow' | pʌ̃rəmʌʌ | 'be wide' |
| halla | 'be smooth' | senəfʌʌ | 'be beautiful, young' |
| homnʌʌ | 'be warm, fast' | toŋəna | 'be deep' |
| kã̃ŋənaa | 'be hard, difficult' | wʊrfaa | 'be small' |

(636) də     dɔjaa hal kesem
   PRON. 3SG. HUM. be long until much

   'He is very big.'

(637) a  sundu  koŋ     homnʌʌ
   ART. horse + SG. DET. NON-HUM. SG. be fast (PROG.)

   'The horse is fast.'

### 2.1.3.3.2.1.5 Progressive aspect (continuous aspect of a non-stative verb)

Koromfe makes no distinction between continuous and progressive aspect; the PROGRESSIVE verb form covers both (cf. §2.1.3.3.2.1.4 immediately above).

Since most ongoing actions are expressed using the PROGRESSIVE form, this form could easily, but wrongly, be regarded as a present or future tense (as in Rennison, 1986a). The PROGRESSIVE verb form *lata(a)* in sentence (634) above is a good example of this present/future usage. However, PROGRESSIVE verb forms which have clear past time reference are not uncommon, as shown in (638), which has a PROGRESSIVE verb form and an overt adverb referring to past time. The equivalent sentence with an UNMARKED verb, (639), implies a single event of coughing, whereas (638) implies continuous coughing. In both sentences the adverb *da* is optional, although clearly its omission allows a wider time reference of the verbs.

(638) də     da   kosrʌʌ
   PRON. 3SG. HUM. past (ADV.) cough + PROG.

   'He coughed (several times in the past).'

(639) də     da   kosu
   PRON. 3SG. HUM. past (ADV.) cough

   'He coughed (in the past).'

Koromfe has no ingressive or terminative aspect, therefore §2.1.3.3.2.1.6–7 are omitted.

### 2.1.3.3.2.1.8 Iterative aspect

Iterative aspect falls within the aspectual range of the DURATIVE form. In narratives, repeated actions are often repeated verbally several times, and the verbs are all in the DURATIVE aspect (or expressed by an auxiliary verb meaning 'have', usually in the DURATIVE form, followed by a deverbal

action noun). Examples of this construction were given in §1.3.1.5 above. An extreme example is given in (640), where the central meaning of the sentence is omitted and only the construction expressing iterative aspect remains. Sentence (640) contains three repetitions of what can be reconstructed (from the context of the narrative) as sentence (641). This context is that the elephant and the hippopotamus have agreed to try to trample on the rabbit whenever they find him.

(640)    ba            wɔfʋ       ba            wɔfʋ       ba
        PRON. 3PL. HUM.  have + DUR.  PRON. 3PL. HUM.  have + DUR.  PRON. 3PL. HUM.

        wɔfʋ        ja
        have + DUR.  EMPH.

        'They do it and do it and do it again.' *(I.e. 'They fight (him) again and again.')*

(641)    ba            wɔf(ʋ)     a    timsi
        PRON. 3PL. HUM.  have + DUR.  ART.  fight + PL.

        'They fight and fight.'

### 2.1.3.3.2.1.9 Semelfactive aspect

There is no semelfactive aspect, and no easy way to express it except by means of an overt adverb. Situations which occur only once can be found expressed with each of the 4 finite verb forms of Koromfe.

### 2.1.3.3.2.1.10 Punctual aspect

Punctual aspect is not contrasted with perfective aspect, but is usually expressed by an UNMARKED or PAST verb form.

### 2.1.3.3.2.1.11 Durative aspect

Durative aspect is not contrasted with imperfective aspect, but is usually expressed by a DURATIVE or PROGRESSIVE verb form.

There is no simultaneous aspect and there are no other aspects, and there is no expression of accomplishment, therefore §2.1.3.3.2.1.12–14 are omitted.

### 2.1.3.3.2.2.1 Combinations of different aspectual values

A single verb has a single aspectual value which is determined by its membership in one of four inflectional categories for finite verbs. It is

impossible to add another aspectual value (indeed, the result would be semantically and/or pragmatically odd).

As for the combination of differing aspectual values within the same clause or within different clauses of the same complex sentence, I know of no restrictions on combinations beyond those of semantic or pragmatic plausibility.

Since there are no voice distinctions, and the above holds for all finite verb forms, §2.1.3.3.2.2.2–3 are inapplicable.

### 2.1.3.3.2.2.2.4 Finite and non-finite forms

There are no aspectual distinctions in non-finite forms. However, the agent and the instrument nouns derived from verbs both use the same base as the imperfective verb forms (DURATIVE and PROGRESSIVE). I think that this is not accidental; the notions of 'agent' and 'instrument' imply habit, and within the finite verb inflection, habitual aspect is expressed by the DURATIVE.

### 2.1.3.4 Mood

There exist only indicative and imperative moods in Koromfe, neither of which is specially marked in the morphology. Therefore §2.1.3.4.1–2 and §2.1.3.4.4–15 are omitted.

### 2.1.3.4.3 Imperative

Only UNMARKED and DURATIVE verb forms can be used as imperatives. See §1.1.1.3.1 above for their use.

### 2.1.3.4.3.1 Persons and numbers in which the imperative has special forms

The two verb forms given in §2.1.3.4.3 are immutable, and are used in the 2nd person only. In the plural, the 2nd person plural pronoun *na* follows the imperative verb, but there is no change in the verb form itself.

### 2.1.3.5 Finite and non-finite forms

There are no special non-finite verbal forms apart from those dealt with below under the heading of derivation, i.e. a gerund or deverbal action noun, an agent and an instrument noun. Therefore §2.1.3.5.1–4 are inapplicable.

## 2.1.3.6 Person/number/etc.

### 2.1.3.6.1 Categories coded in the verb

None of the categories listed in §2.1.3.6.1.1–5 can be coded in the verb.

### 2.1.3.6.2 Agreement

There is no agreement of any kind on the verb; apart from topicalized or emphatic sentences there is never a pronoun copy of an overtly expressed subject, object or other NP. Therefore §2.1.3.6.2.1–3 are inapplicable.

Since none of the categories listed in §2.1.3.6.1.1–5 can be coded in the verb, §2.1.3.6.3 is inapplicable. No features of the noun phrase are coded in the verb, therefore 2.1.3.6.4–6 are inapplicable.

### 2.1.3.6.7 Identity between the subject of a verb and the subject of the following

The identity of the subjects of two consecutive verbs is the condition for the special use of the 2nd person singular proclitic subject pronoun for a repeated 3rd person singular subject, which is described in §1.5.2.2 above. However, this is not a part of verb morphology and never affects the shape of any of the verbs involved.

Otherwise there is no means of indicating the identity or non-identity of the subject of consecutive verbs, therefore §2.1.3.6.7.1 is inapplicable.

There are no special reflexive or reciprocal verb forms, therefore §2.1.3.6.8–9 are omitted.

### 2.1.3.6.10 The distinction between actions towards the speaker etc. (directionals)

Only the semantics of the individual verbs 'come' vs. 'go' and 'bring' vs. 'take' express direction towards vs. away from the speaker; these verb pairs have no internal phonological resemblances, and there is no morphological device to express this kind of directionality. I have not found any significantly different uses of the semantics of the main (i.e. non-auxiliary) uses of 'come' and 'go' in Koromfe vis-à-vis English. Therefore §2.1.3.6.10.1–7 are inapplicable.

No distinction is made between different modes of body orientation and there is no incorporation of any kind, therefore §2.1.3.6.11–12 are inapplicable.

*2.1.3.7 Change or loss of features normally marked on the verb in strings of verbs*

It is quite common in Koromfe to have a string of clauses with the same subject and pronoun subjects from the second clause on. When this occurs and the first verb is a PROGRESSIVE form, the verbs of the subsequent clauses in which the PROGRESSIVE would also be expected can simplify to DURATIVE forms, as shown in (642). No elements are interposed.

(642) a  kara     kɔ̃        fɪlɛtɛ    nɛ̃ŋ ja  a
    ART. dry season (SG.) when/since (CONJ.) arrive + PAST thus EMPH. ART.

    fo     pandaa   n     lat    a  bʌ̃ʌ̃ni
    person + SG. give + PROG. PRON. 2SG.[101] seek + DUR. ART. health (SG.)

    n     lat    a   zende
    PRON. 2SG. seek + DUR. ART. year + SG.

    'Now that the dry season has arrived, one is giving (a sacrifice to the ancestors), one is seeking health, one is seeking a (good) year.'

Otherwise, I know of no morphological processes which regularly affect strings of verbs.

## 2.1.4 Adjectives

Koromfe has a class of nouns which, roughly speaking, cover a range of meanings expressed in languages like English by adjectives, and a class of verbs which cover meanings expressed in English by 'be X', where X is an adjective. I term these sub-classes of nouns and verbs 'nominal adjectives' and 'verbal adjectives' respectively, but in fact formally, with the very few exceptions which I will mention below, nothing distinguishes these 'adjectives' from full verbs or nouns respectively.

  In addition, the UNMARKED form of many verbs can be used participially as an attributive adjective (with either an active or passive reading). These participial adjectives cannot be used predicatively (see §2.1.4.3.1.1 below for details).

*2.1.4.1 Predicative vs. attributive forms of adjectives*

There is no distinction between in the forms of adjectives, whether nominal or verbal, when they are used predicatively or attributively, except that the verbal adjectives with a long final *aa* always have a short *a* when used attributively.

Deverbal indeclinable participial adjectives can only be used attributively (cf. §2.1.4.3.1.1 below, esp. examples (653)–(654)). Verbal adjectives can sometimes but not always be used attributively, especially if derived (cf. §2.2.2.2.2 below); they correspond semantically and (in most cases) formally to PROGRESSIVE verb forms, and are therefore only rarely used participially, although this does occur, as in (643) 'The man is strong.' vs. (644) 'A strong man has come.', where the verbal adjective *kaŋəna(a)* 'be strong' is used verbally in the first sentence but attributively (i.e. participially) in the second.

(643)  a       bɔrɔ        hoŋ          kaŋənaa
      ART.  man + SG.  DET. HUM. SG.  be hard/strong

      'The man is strong.'

(644)  a       bɔrɔ        kaŋəna         la      bɛ
      ART.  man + SG.  be hard/strong  EMPH.  come

      'A strong man has come.'

## 2.1.4.2 Absolute (permanent, normal) vs. contingent (temporary, abnormal) state

There is no such distinction in the morphology of nominal or verbal adjectives.

### 2.1.4.3 Agreement

### 2.1.4.3.1 Agreement of adjectives with nouns

Verbal adjectives do not agree at all. Among the true nominal adjectives there is no difference between their behaviour when used attributively and predicatively. Participial adjectives are not used predicatively, and never agree because they are indeclinable.

### 2.1.4.3.1.1 Number

A true nominal adjective behaves like a noun, thus, just as normally there is number agreement between the first and second noun of an appositive NP+N compound noun, as in (645) (which is SG.) vs. (646) (which is PL.), there is the same number agreement between a noun and an attributive adjective in (647) (which is SG.) vs. (648) (which is PL.). Syntactically, these are one and the same construction.

(645)  mə        jɔ̃ɔ̃ndɔ          bɔrɔ
       PRON. 1SG.  elder sibling + SG.  man + SG.
       'my older brother'

(646)  mə        jɔ̃ɔ̃ndəba         bɛnna
       PRON. 1SG.  elder sibling + PL.  man + PL.
       'my older brothers'

(647)  mə        jɔ̃ɔ̃ndɔ          dɔɔrɛ
       PRON. 1SG.  elder sibling + SG.  long + SG.
       'my tall older sibling'

(648)  mə        jɔ̃ɔ̃ndəba         dɔɔja
       PRON. 1SG.  elder sibling + PL.  long + PL.
       'my tall older siblings'

There is the same semantically based number agreement between a subject noun and a predicative adjective which is identical to the number agreement between a subject noun and the complement of a copula. Compare the nominal adjective complements 'long' in (649)–(650) with the noun complements 'killer' in (651)–(652).

(649)  mə        jɔ̃ɔ̃ndɔ          hoŋ          a    dɔɔrɛ        la
       PRON. 1SG.  elder sibling + SG.  DET. HUM. SG.  ART.  long + SG.   COPULA
       'My older sibling is tall.'

(650)  mə        jɔ̃ɔ̃ndəba         bɛŋ          a    dɔɔja        la
       PRON. 1SG.  elder sibling + PL.  DET. HUM. PL.  ART.  long + PL.   COPULA
       'My older siblings are tall.'

(651)  mə        jɔ̃ɔ̃ndɔ          hoŋ          a    kʊrɔ[102]    la
       PRON. 1SG.  elder sibling + SG.  DET. HUM. SG.  ART.  killer + SG.  COPULA
       'My older sibling is a butcher.'

(652)  mə        jɔ̃ɔ̃ndəba         bɛŋ          a    kʊrəba       la
       PRON. 1SG.  elder sibling + PL.  DET. HUM. PL.  ART.  killer + PL.  COPULA
       'My older siblings are butchers.'

The above examples also show that a nominal adjective, like a noun, requires the preposed article *a*. Only when the nominal adjective is used 'attributively' as the second member of an NP+N compound, as in (645)–

(648) above, is the article omitted — in precisely the same construction in which a 'real' noun has no article (cf. §2.3.1.1.3–4 below).

The only differences in the expression of number in nominal adjectives and 'nouns proper' are that 1) there exists a plural class -*ıa* which contains only nominal adjectives (mainly with a singular form in the -*gʋ* class — cf. §2.1.1.9.1.2.5 above), and 2) there exist indeclinable nominal adjectives (most of them deverbal participles, as exemplified in (653)). The participial indeclinable adjectives (formally identical to UNMARKED verb forms) are relatively rare, and cannot be used predicatively; instead the normal verb form must be used, as in (654).[103]

(653)   a      bɔrɔ       dɔɔrɛ      warəg(ı) la     bɛ
        ART.   man + SG.   long + SG.  be tired  EMPH.  come

        'A tall and tired man came.'

(654)   a      bɔrɔ       hoŋ            warəgı
        ART.   man + SG.   DET. HUM. SG.   be tired

        'The man is tired.'

### 2.1.4.3.1.2 Person

There is no distinction of person in the verbal or nominal adjectives, though a verbal adjective can have a 1st or 2nd person subject alongside the normal 3rd person, and a nominal adjective can qualify a 1st or 2nd person (free, disjunctive) pronoun.

### 2.1.4.3.1.3 Class and gender

There is no marking for class in the verbal adjectives. Nominal adjectives, like all other nouns, belong to a noun class and have the corresponding singular and plural suffix. Participial adjectives (formally the UNMARKED form of the verb — i.e. the bare verb stem) are indeclinable.

One nominal adjective, with the stem *sɔr*- and the meaning 'other', looks as if it inflects for humanness, since there exist two human forms *sɔrɔ* (SG.) and *sɔrəba* (PL.) and also two non-human forms, *sɔrəgʋ* (SG.) and *sɔrəhɛ̃* (PL.). However, this is the only nominal adjective that I know which marks humanness in this way, although there exist the interrogative pronouns/adjectives *ndeendı* etc. and demonstratives *ndendı* and *nandı* with this four-way distinction of number and humanness. The pattern of *sɔr*- is reminiscent of the deverbal agent and instrument nouns (i.e. with

HUM. SG. -*ɔ̃*) in contrast with the personal pronouns and with *ndendɩ* and *nandɩ*, which all have HUM. SG. *dɩ*.

The determiners, which can be used as demonstrative adjectives, also agree with their head noun for number and humanness (cf. §2.1.1.10.1).

### 2.1.4.3.1.4 Case

Koromfe has no case marking anywhere.

### 2.1.4.3.1.5 Definiteness/indefiniteness

Definiteness is marked on the entire noun phrase (by the presence of a final determiner such as *hoŋ* in (654) above), but not in the individual constituents of the NP (be they nouns, adjectives or others). Indefiniteness is recognizable by the lack of such a determiner; it has no special marking of its own.

### 2.1.4.3.1.6 Other

There is no other kind of agreement beyond the number and humanness agreement dealt with above.

### 2.1.4.3.2 Factors on which agreement depends

The only agreement which exists, namely semantic number and humanness agreement between noun and nominal adjective, both attributive and predicative, always applies and is not dependent on any other factors. Therefore §2.1.4.3.2.1–2 are omitted.

### 2.1.4.3.3 Factors affecting agreement

### 2.1.4.3.3.1 Conflict between grammatical and semantic category values

There are no such conflicts because the agreement is always semantically based.

### 2.1.4.3.3.2 Agreement with coordinated nouns some of which belong to different classes

The moment a coordinate noun is involved, the adjective is plural; noun class as such does not agree, therefore there is no conflict.

## 2.1.4.4 Comparison of adjectives

Comparison is not expressed morphologically on the adjective, but by means of verbs; therefore §2.1.4.4.1-§2.1.4.4.3.3 are inapplicable. Comparison is described fully in §1.8.1.4.1 above.

## 2.1.4.5 Degrees of the quality expressed by an adjective

The degree of the quality expressed by a nominal adjective cannot be expressed directly in Koromfe by linguistic means; either a corresponding verbal adjective is used (e.g. *dɔjaa* 'be long/tall' for *dɔɔrɛ* 'long/tall', or *senəfʌʌ* for *seno* 'young/beautiful') together with an adverb of degree, or an abstract noun denoting the quality expressed by the adjective is used with a verb expressing degree (such as *kɛ̃* 'surpass' for 'very' or *magtı* 'be measured' for 'rather'). The word *magtı* can also be used as an adverb. (This adverbial usage of what is probably, at least in origin, a participle is extremely rare. No other comparable word, e.g. *kɛ̃*, can be used adverbially.)

The proviso 'by linguistic means' in the previous paragraph is necessary because one quite common way of expressing large measure is to lengthen the stem vowel of a nominal adjective (see *dɔɔɔɔrɛ* immediately below).

## 2.1.4.5.1 Large measure

The normal linguistic way to express large measure is an adverb; however, extralinguistic phonetic means are also used to indicate the degree of a certain quality. Apart from exclamations and whistling, it is also possible and usual to lengthen the stem vowel of some nominal adjectives, especially *dɔɔrɛ* 'long', which is semantically almost predestined to receive such a lengthened vowel. Thus *a bɔrɔ dɔɔrɛ* means 'a tall man' and *a bɔrɔ dɔɔɔɔrɛ* 'a very tall man'. The vowel here is lengthened to about twice its (already long) normal length, and receives a high falling intonation.

The adverbs *kesem*, *wası* and *pɔtʊ* are used to express large measure, especially with verbal adjectives. Each can also be used with a preposed preposition *hal* 'up to'. These adverbs can also be reduplicated (but only without *hal*) to express very large measure. Examples of verbal adjectives (replacing nominal adjectives) are given in (655)–(657).

(655)  də              dɔjaa    hal        kesem
       PRON. 3SG. HUM.  be long  up to (PREP.)  much (ADV.)

       'He is very tall.'

(656)  də              senəfʌʌ       wasɪ
       PRON. 3SG. HUM.  be beautiful  much (ADV.)

       'She is very/too beautiful.'

(657)  a     gabrɛ       koŋ                 dɔndaa   kesem
       ART.  knife + SG.  DET. NON-HUM. SG.  be good  much (ADV.)

       'The knife is very/too sharp.' *(Lit:* 'The knife is very good.'*)*

If we compare this usage with the modification of a normal intransitive verb in (658)–(659) or a whole verb phrase in (660), we see that these adverbs of degree are in no way specific to the morphological category of adjectives.

(658)  də              lellʌʌ        wasɪ
       PRON. 3SG. HUM.  sing + PROG.  much (ADV.)

       'She sings well/much.'

(659)  a     gabrɛ       koŋ                 dɪraa       kesem
       ART.  knife + SG.  DET. NON-HUM. SG.  eat + PROG.  much (ADV.)

       'The knife is very/too sharp.' *(Lit:* 'The knife consumes much.'*)*

(660)  də              kekrʌʌ        a     fãĩ              halə
       PRON. 3SG. HUM.  take + PROG.  ART.  millet porridge  up to (PREP.)

       kesem
       much (ADV.)

       'He takes a lot of porridge.'

## 2.1.4.5.2 Superabundance

There is no morphological or other grammatical distinction between the notions of 'large measure' and 'superabundance'. The idea that a quality is present to a greater extent than is considered good can only be expressed in a very roundabout way, e.g. (661).

(661)  də              dɔɪmɛ̃ɛ̃[104]   koŋ                 dɔgs(ʊ)  a     nɛ̃nɛ
       PRON. 3SG. HUM.  length (SG.)  DET. NON-HUM. SG.  cross    ART.  mouth + SG.

       'He is too big.' *(Lit.:* 'His length has crossed the mouth.' *I.e. it has left the bounds of that which one can call normal.)*

### 2.1.4.5.3 Small measure

The notion of 'in small measure' is most easily expressed in Koromfe by a verb meaning 'measure' such as *magt-* (used with a passive reading, and with the interpretation that 'measured' equates to a moderate, normal or modest amount). This means that here again the quality referred to is best expressed by an abstract noun of quality such as *dɔɪ* in (662).

(662)  də             dɔɪ          magtɪ
      PRON. 3SG. HUM.   length (SG.)   measure

      'He is quite big.' *(Lit.:* 'His length is measured.'*)*

This device of nominalization is even used on verbs, as shown in (663), where a clause meaning 'Badini is coming' has been nominalized to 'Badini's coming', and is the subject of *magtɪ* 'be measured'.

(663)  bʌdini          bɛ̃õ          magtɪ
      *(proper name)*   coming (SG.)   measure

      'Badini is coming quite fast.' *(Lit.:* 'Badini's coming is measured.'*)*

The verb *magt-* can also be used as a participial adjective, so that the NP in (664) equates to 'a moderately tall man'. Because *magtɪ* is always located at the end of the NP, it is impossible to say whether it refers here to *dɔɔrɛ* 'tall' alone or to the whole of the (rest of the) NP *a bɔrɔ dɔɔre* 'a tall man'. I think the latter, since *magtɪ* can also be used in the sense of 'moderate' without an 'adjective',[105] as in (665), which was given in the context of the comparative tallness of people.

(664)  a      bɔrɔ          dɔɔrɛ         magtɪ
      ART.   man + SG.   long + SG.   measure

      'a moderately tall man'

(665)  a      bɔrɔ          magtɪ
      ART.   man + SG.   measure

      'a moderately tall man'

The notion of 'small measure' can also be expressed by the negation of an expression for 'large measure', as shown in (666).

(666)  a      bɔrɔ          kɔ̃m               ba      dɔja       kesem
      ART.   man + SG.   NON-SPEC. REL.   NEG.   be long   much (ADV.)

      'a not very tall man' *(Lit.:* 'a man who doesn't be-tall much'*)*

### 2.1.4.5.4 Others

There are no others.

### 2.1.4.6 Expression of the categories that characterize the verbal morphology with predicative adjectives

### 2.1.4.6.1 In the adjective morphology

The 'categories that characterize the verbal morphology of the language' are the four tense/aspect forms of the verb. These are never expressed on a nominal adjective, but with verbal adjectives the question is quite difficult.

There is a considerable problem of elicitation in the area of verbal adjectives when using French (which has few verbal adjectives) as the working language. In addition, Koromfe has nominal adjectives available in most cases, and I found that informants often resorted to these when the going got rough.

Nevertheless, I think that each true verbal adjective has only a single morphological form, usually ending in long -*aa* like the PROGRESSIVE verb forms and subject to the same shortening processes. The time reference of such a verbal adjective is present unless modified by an adverb of time (which can make it refer to past or future time). A list of most of the unequivocal verbal adjectives in my corpus is given in (667); words describing human body positions (sitting, standing, crouching, etc.) have been omitted, since I consider these to be normal intransitive verbs.[106]

(667) *Verbal adjectives*

| finite form (PROG.)[107] | gloss | finite form (PROG.) | gloss |
|---|---|---|---|
| dɔjaa | 'be long' | kanna | 'be bitter' |
| fɛləmaa | 'be narrow' | kɪtaa | 'be forbidden' |
| hãna | 'be good' | pʌ̃rəmʌʌ | 'be wide' |
| halla | 'be slippery, slimy' | senəfʌʌ | 'be beautiful / young' |
| hɛ̃ɛ̃ / hɛ̃ã | 'be far away' | sɔ̃ŋɔ̃ | 'be pointed' |
| homnʌʌ | 'be warm' | tʊŋəna | 'be deep' |
| kã̃ŋənaa | 'be hard / difficult' | wʊrfaa | 'be small' |

One of the words in (667) deserves special mention, namely *hãna* 'be good', which also has a form *hãnɛ* that is used only in negative sentences. Whether this last form can be interpreted as a PAST tense verb form is un-

clear to me; this seems to be the only verbal adjective that has two inflec-
tional forms (apart from the shortening of long -*aa*).

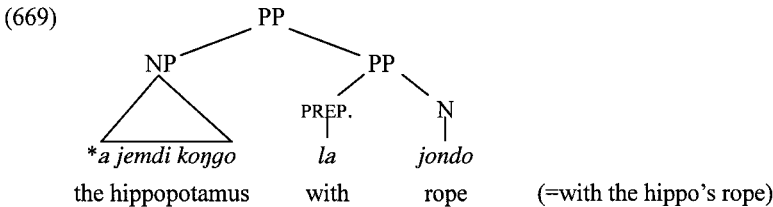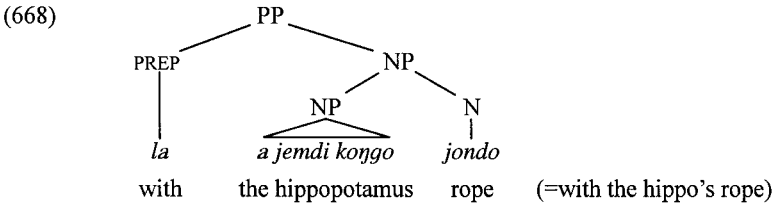### 2.1.4.6.2 By means of a copular verb

With nominal adjectives, the 'categories that characterize the verbal mor-
phology of the language' are expressed by the same types of copular verb
described in §1.2.1.1 above for the nouns and nominal adjectives
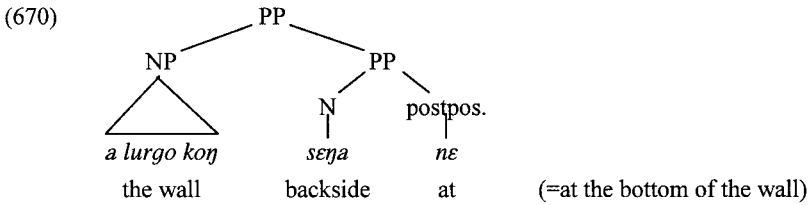(especially §1.2.1.1.2).

### 2.1.5 Prepositions/postpositions

### 2.1.5.1 Occurring forms

All prepositions (i.e. *la* and *hal*) and most of the common postpositions
were dealt with in §2.1.1 above; however, the class of postpositions seems
to be quite open to extension, since apart from the hard core of two
'postpositions proper' with no meaning as an independent noun, most of
the postpositions seem to have originated in common nouns. Table (674) is
therefore given with the proviso that new postpositions are very likely to
exist or to arise in the future.

There exist simple prepositions (*la* and *hal*) but no complex **preposi-
tions** and (perhaps surprisingly) no complex postpositions with the struc-
ture *la* + X. In other words structure (668) is the only licit one for the
combination of a preposition with two nouns; structure (669) is impossible
(even with more preposition-like semantics of the second noun or with any
other variant of modifiers).

(668)

```
              PP
         /          \
      PREP           NP
       |          /       \
       |        NP          N
       |       /  \         |
       la   a jemdi koŋgo  jondo
      with  the hippopotamus  rope   (=with the hippo's rope)
```

(669)

```
              PP
         /          \
       NP            PP
      / \          /     \
     /   \      PREP.      N
  *a jemdi koŋgo  la      jondo
  the hippopotamus  with   rope   (=with the hippo's rope)
```

(670)

```
                    PP
            ____/      \____
          NP              PP
         /  \           /    \
        /____\         N    postpos.
                       |       |
      a lurgo koŋ     seŋa     nɛ
       the wall      backside   at        (=at the bottom of the wall)
```

Postpositions can be (simplex) 'postpositions proper', of which there are two (*nɛ* and *wa*) or common nouns in the function of postpositions (a potentially large class). These common-noun postpositions can occur either alone or as a compound postposition with the structure X + *nɛ*. No other preposition or postposition except *nɛ* is found in compound postpositions. The presence of *nɛ* in the more frequent common-noun postpositions could to a large extent be due to the influence of French: I noticed that the less educated a speaker was, or the less attention he paid to these postpositions, the more likely he was to omit the *nɛ* of a compound postposition. On the other hand, the formation and use of newer or less frequent postpositions such as *furo ni* 'about' (lit.: 'on the track of') seemed to require combination with *nɛ* (here phonetically *ni*). Also, when the noun of the PP is omitted completely, or the noun of the PP is replaced by a pronoun, *nɛ* is obligatory (cf. (671) and (672) respectively below, both paraphrases of (673)).

(671)  də                  hɪt(ɪ)    a    dãŋ         koŋ
       PRON. 3SG. HUM.     stay.    ART.  house + SG.  DET. NON-HUM. SG.

       bɛllɛ
       back + SG. (POSTPOS.)

       'He stayed behind the house.'

(672)  də                  hɪtɪ    bɛllɛ        nɛ
       PRON. 3SG. HUM.     stay    back + SG.   at (POSTPOS.)

       'He stayed at the back.' *(Implied: of the house)*

(673)  də                  hɪtʊ   gʊ                    bɛllɛ        nɛ
       PRON. 3SG. HUM.     stay   PRON. 3SG. NON-HUM.   back + SG.   at (POSTPOS.)

       'He stayed at the back of it.' *(Implied: of the house)*

Examples of the prepositions and postpositions listed in table (674) were given in §2.1.1 above.

(674)   *Tables of prepositions and postpositions (simple and complex)*

| preposition (never complex) | gloss |
|---|---|
| hal | 'up to' (degree, time), 'back to' (time) |
| la | 'with' (comitative, instrumental) |

| core postposition (no other meaning) | gloss |
|---|---|
| nɛ (ne, nɪ) | 'at', 'in', 'to', 'from' (local), 'for' (benefactive, purpose) |
| wa | 'at the home of', 'with' (similar to Fr. *chez*) |

| common-noun postposition | when combinable with nɛ ? | gloss as postposition | gloss as common noun |
|---|---|---|---|
| bɛllɛ | often | 'behind' | 'back' |
| dɔba | often | 'on (top of)', 'concerning' | 'top' |
| dɔɪla | never | 'along' | (dɔɪ) 'length' |
| furo | always | 'about' ('on the track of') | 'track' |
| hɛrɡa | not often | 'beside', 'next to' | 'side' |
| hoɡo | not often | 'under' | 'underside' |
| jõ | always | 'on (top of)', 'concerning' | 'head' |
| jɪka | always | 'in front of' | 'face', 'front' |
| joro | not often | 'inside', 'in' | 'interior' |
| nẽnɛ | not often | 'at the entrance/edge of' | 'mouth', 'entrance' |
| sɛɲa | always | 'next to', 'near' | 'backside' |
| tʊllɛ | not often | 'between', 'among' | 'middle' |
| wolle | never | 'next to' | 'foot' |

## 2.1.5.2 Agreement between pre-/postpositions and the nouns they govern

Pre-/postpositions do not agree with the nouns they govern for any grammatical category. Therefore §2.1.5.2.1 is inapplicable.

## 2.1.5.3 Combination of pre-/postpositions with the personal pronouns to form series of personal forms

The combination of a preposition or postposition with a pronoun is quite regular, and never involves any phonological change. Both clitic and disjunctive (free) pronouns can be used. Examples with *la*, the only preposi-

tion which ever normally appears with a personal pronoun, are given in table (675), and of the postposition *nɛ* in (676).

(675)    *The combination of prepositions with pronouns*

| person & number | preposition + clitic pronoun | preposition + dis- junctive pronoun | gloss (for both columns) |
|---|---|---|---|
| 1st singular | la mɛ | la məkɔ | 'with me' |
| 2nd singular | la nɛ | la ŋkɔ | 'with you' |
| 3rd sg. human | la dɪ | la dəkɔ | 'with him/her' |
| 3rd sg. non-hum | la gʊ | la gʊkɔ | 'with it' |
| 3rd sg. diminutive | la ga | la gakɔ | 'with him/her/it' |
| 1st plural | la hɔ̃ | la ʊkɔ[108] | 'with us' |
| 2nd plural | la na | la nakɔ | 'with you' |
| 3rd pl. human | la ba | la bakɔ | 'with them' |
| 3rd pl. non-hum | la hɛ̃ | la ɪkɔ[108] | 'with them' |

(676)    *The combination of postpositions with pronouns*

| person & number | postposition + clitic pronoun | postposition + dis- junctive pronoun | gloss (for both columns) |
|---|---|---|---|
| 1st singular | mə nɛ | məkɔ nɛ | 'for me' |
| 2nd singular | n nɛ | ŋkɔ nɛ | 'for you' |
| 3rd sg. human | də nɛ | dəkɔ nɛ | 'for him/her' |
| 3rd sg. non-hum | gʊ nɛ | gʊkɔ nɛ | 'for it' |
| 3rd sg. diminutive | ga nɛ | gakɔ nɛ | 'for him/her/it' |
| 1st plural | ʊ nɛ | ʊkɔ nɛ | 'for us' |
| 2nd plural | na nɛ | nakɔ nɛ | 'for you' |
| 3rd pl. human | ba nɛ | bakɔ nɛ | 'for them' |
| 3rd pl. non-hum | ɪ nɛ | ɪkɔ nɛ | 'for them' |

## 2.1.5.4 Combination of pre-/postpositions with the articles of the noun phrases they govern

There is no combination of pre-/postpositions with articles as a special sub-system of idiosyncratic morphological forms of the language (like French *au* or German *am*). However, two quite general phonological processes of the language are operative at these (and other) types of word boundaries.

## 2.1.5.4.1 The NP-initial article a

The article *a*, which stands at the beginning of the NP, never combines with the preposition (which can only be *hal* or *la*). However, at a normal rate of speech the article is usually dropped (or at least inaudible) after the *a* of *la* (as it is after all vowels, regardless of the noun class to which the word belongs).[109] In careful speech there is a hiatus between the final *a* of *la* and the *a* of the article; this sequence is never realized as a long vowel [aː]. An example of a prepositional phrase with and without loss of the article *a* is given in (677)–(678). The phrase (677) requires a clear pause or pause-like intonation between *la* and *a*.

(677)  la            a        dãĩnɛ
       with (PREP.)  ART.     wood + SG.

       'with a stick'

(678)  la                    (a)              dãĩnɛ
       with (PREP.)  ART. (*elided*)   wood + SG.

       'with a stick'

## 2.1.5.4.2 The NP-final article determiners

Phonologically, the DETERMINERS all end with a velar nasal [ŋ] in their short form or a vowel in their long form, whilst POSTPOSITIONS always begin with a consonant (i.e. a syllable onset). There are no phonological processes which affect the long form of the DETERMINER. However, the final velar nasal of the short DETERMINER can optionally be assimilated to the place of articulation of the following consonant, as can be seen in ...*kom bɛllɛ*... in (679), the optional assimilated version of ...*koŋ bɛllɛ*... in (680), and in ...*kon dɔba*... in (681) for ...*koŋ dɔba*... in (682). This optional phonological process also occurs when words other than a POSTPOSITION follow the short determiner — I therefore consider it to be a phonologically rather than morphologically triggered process.

(679)  a      dãŋ           kom               bɛllɛ         nɛ
       ART.   house + SG.   DET. NON-HUM. SG. back + SG.    at (POSTPOS.)

       'behind the house'

(680)  a      dãŋ           koŋ               bɛllɛ         nɛ
       ART.   house + SG.   DET. NON-HUM. SG. back + SG.    at (POSTPOS.)

       'behind the house'

(681)  a      dãŋ        kon              dɔba      nε
       ART.   house + SG.   DET. NON-HUM. SG.   top + SG.   at (POSTPOS.)

       'on (top of) the house'

(682)  a      dãŋ        koŋ              dɔba      nε
       ART.   house + SG.   DET. NON-HUM. SG.   top + SG.   at (POSTPOS.)

       'on (top of) the house'


## 2.1.6 Numerals/quantifiers

The system of numerals in Koromfe seems to be undergoing a process of simplification and assimilation to the Mòoré system. Some of the words and expressions given below are taken from recordings made in the 1960's, but were rejected by my informants some 30 years later — where relevant, this is mentioned below. Moreover, Prost (1980: 109) reports in his appendix on the dialect of Aribinda there are deductive expressions there for the numerals 8, 9, 80 and 90 (corresponding to '10 minus 2', '10–1', '100–20' and '100–10' respectively).[110] My informants considered these to be very strange. Since other numerals (100 and 1000) are loaned from the neighbouring (Nilo-Saharan) language Songhai, this manner of counting may also be non-native to Koromfe.

### 2.1.6.1 The numerals used in counting

### 2.1.6.1.1 From 1 to 10

The cardinal numerals from 1 to 10 as used in counting are given in (683).

(683)   *The cardinal numerals from 1 to 10*

| numeral | gloss | numeral | gloss |
|---------|-------|---------|-------|
| ndom / ɡadɔm | '1' | ɪhʊrʊ | '6' |
| ɪhĩĩ | '2' | ɪpɛ̃ɛ̃ | '7' |
| ɪtãã | '3' | ɪtɔɔ | '8' |
| ɪnãã | '4' | ɪfa | '9' |
| ɪnɔm | '5' | fɪ | '10' |

The alternative forms for 1, *ndom* and *ɡadɔm* are used interchangeably, and I have never noticed any restriction on the use of either of them in counting. However, in higher (coordinated) numerals *ɡadɔm* is always used.

The numerals from 1 to 9 have class **prefixes** (singular *n* and *ga*, plural *ı*). The prefix *n* does not exist elsewhere, but probably originated as a class or personal pronoun prefix, since it is dropped when the numeral 1 is used attributively (see §2.1.6.2 immediately below). This may be the *n* pronoun of the 2nd person singular in a 3rd person usage similar to the special anaphoric subject usage described in §1.5.2.2 above.

The prefix *ga-* of *gadɔm* is the diminutive singular class morpheme found in the *ga/nı* noun class and also as a personal pronoun. The prefix *ı* of the numerals from 2 to 9 is the plural morpheme of the 'non-human' class *gʊ/ı*, which is likewise also used as a personal pronoun. This same class prefix also seems to occur on the question word *ıkɔl* 'how many' — although of course this cannot be checked because there exist no instances of a stem *kɔl* in isolation or other combination.

The normal way of counting on one's fingers in Koromfe is to start with the fingers outstretched and fold the fingers down (often with the help of the fingers of the other hand), starting from the little finger and finishing with the thumb. This correlates with the use of the diminutive class morpheme for 1, but the (non-diminutive) general non-human class morpheme for 2 to 9.

The word for 5, *ınɔm*, has no relation to any word meaning 'hand', but the presence of a final *m* is reminiscent of the numeral 1 (which is the only other numeral with a final *m*). The word for 6, *ıhʊrʊ*, has no relation to anything like the concept of 'first finger of the other hand'.

I know of no reason (other than its mathematical properties) why the word for 10 is the first numeral in ascending order that has no class suffix. This word is not obviously related to any other concept in the language. Its striking homophony with the noun class plural suffix *-fı*, which is still fully productive in loan word plural formation, is probably accidental.

*2.1.6.1.2 From 11 to 99*

The numerals from 11 upwards are all formed by coordination using the conjunction *la*, whereby the larger number always comes first. Thus the number 11 itself is *fı la gadɔm* 'ten and one' and nineteen is *fı la ıfa*. The terms for numerals in tens (from 20 to 90) are given in (684).

(684)    *The cardinal numerals from 20 to 90*

| numeral | gloss | numeral | gloss |
|---------|-------|---------|-------|
| sofe | '20' | fĩhorʊ | '60' |
| fĩ(n)tãã | '30' | fĩ(m)pɛ̃ɛ̃ | '70' |
| fĩnaa | '40' | fĩ(n)tɔɔ | '80' |
| fĩnɔm | '50' | fĩfa | '90' |

The word for '20', *sofe* looks as if it may have originated as a noun with a class suffix -*fɛ*, which would fit very well with the notion of '20' ('one score') being a whole single person (i.e. 10 fingers and 10 toes). However, there is no other word stem resembling *so* which might be related to this word,[111] so the existence of a class suffix here remains sheer speculation. It is impossible to use a compound like *fĩhĩĩ* for 20 (on the pattern of the numerals from 30 to 90).

Clearly, the numerals from 30 to 90 are compounds involving *fi* '10' and *tãã* '3' up to *fa* '9' in their attributive form (i.e. without their initial class prefix *ı* — cf. §2.1.6.2 below). The nasality of *fĩ* in these compounds is unexpected, though not unknown at compound boundaries (cf. §2.3.1.2.3); if it is a plural marking, then it is totally idiosyncratic, for there is no plural morpheme in Koromfe that involves the nasalization of a vowel; the closest class suffix is the -*nɛ* plural of the diminutive class. Incidentally, no compound of *fi* '10' with a numeral meaning '1' or '2' is possible.

The nasal consonants given in parentheses in (684) can be heard phonetically as transitions between the nasal vowel and the following voiceless stop; however, I see no reason to consider them to be lexically present.

## 2.1.6.1.3 From 100 to 999

Numerals involving hundreds are formed by exactly the same coordination mechanism as tens and units. The word for '100' itself, *bɛrʊ*, is also counted (apart from the numeral 100); the conjunction *la* is obligatory both after the hundreds-numeral and (if applicable) between the tens and units numerals. Some relevant examples of the logical possibilities are given in (685), and the structures of the examples '136' and '373' are given in terms of words in (686)–(687) and in terms of morphemes in (688)–(689).

(685)   *Cardinal numerals involving hundreds*

| numeral | gloss | numeral | gloss |
|---|---|---|---|
| bɛrʋ | '100' | bɛrʋma hĩĩ | '200' |
| bɛrʋ la gadɔm | '101' | bɛrʋma hĩĩ la maa | '204' |
| bɛrʋ la fɪ la gadɔm | '111' | bɛrʋma tãã la fɪpɛ̃ɛ̃ la ɪtãã | '373' |
| bɛrʋ la fĩntãã la ɪhʋrʋ | '136' | bɛrʋma fa la fɪfa la ɪfa | '999' |

(686)   bɛrʋ       la      fĩntãã        la      ɪhʋrʋ
        hundred  and   three tens   and    six

        '136'

(687)   bɛrʋma              tãã      la      fɪpɛ̃ɛ̃        la      ɪtãã
        hundred + PL.   three    and   seventy   and    three

        '373'

(688)   bɛrʋ                    la      fĩn-      -tãã      la      ɪ-                        -hʋrʋ
        hundred (SG.)    and   ten (PL.)   three    and   NON-HUM. PL.    six

        '136'

(689)   bɛrʋ-       -ma   tãã      la      fɪ-      -pɛ̃ɛ̃      la      ɪ-                         -tãã
        hundred   PL.   three    and   ten (PL.)   seven    and   NON-HUM. PL.   three

        '373'

The Koromfe word for 'hundred', *bɛrʋ*, PL. *bɛrʋma* is also frequently replaced by the Mòoré word *kɔbəga*, PL. *kɔsəma*. The structure of the numeral expressions is not otherwise affected when the Mòoré word is used.

### 2.1.6.1.4 The thousands

The word for 'thousand' is *tʋsrɪ*, PL. *tʋsa*, a loan from Mòoré. It combines with the other numerals in the usual way, as can be seen from the examples in (690), i.e. the largest numeral comes first, and each 'power-of-10' group must be followed by *la* if another numeral (group) follows. And like the hundreds, the word for 'thousand' can be modified by a numeral from 2 to 9, in which case it must appear in the plural form, *tʋsa*.

(690)    *Cardinal numerals involving thousands*

| numeral | gloss |
|---|---|
| tʊsrɪ | '1000' |
| tʊsrɪ la gadɔm | '1001' |
| tʊsrɪ la fɪ la gadɔm | '1011' |
| tʊsrɪ la bɛrʊ la fɪ la gadɔm | '1111' |
| tʊsa hĩĩ la bɛrʊ la fɩntãã la ɪhʊrʊ | '2136' |
| tʊsa tãã | '3000' |
| tʊsa tãã la fĩnaa | '3040' |
| tʊsa naa la bɛrʊma tãã la fɪpɛ̃ɛ̃ la ɪtãã | '4373' |
| tʊsa fa la bɛrʊma fa la fɪfa la ɪfa | '9999' |

## 2.1.6.1.5 Beyond the thousands

The next powers-of-10 group, the ten-thousands, does not have a unique lexical item associated with it in the same way as all others up to here; it is formed as in English and French by using the word for thousands and modifying it with words from the tens series (from 20 up to 90). Some examples are given in (691). Modification and the biggest-first sequence proceed in the usual way, and are therefore not exemplified.

(691)    *Cardinal numerals involving tens of thousands*

| numeral | gloss | numeral | gloss |
|---|---|---|---|
| tʊsa fɪ | '10,000' | tʊsa fɪhʊrʊ | '60,000' |
| tʊsa sofe | '20,000' | tʊsa fɪfa | '90.000' |
| tʊsa fɩntãã | '30,000' | | |

Interestingly, the words for the next power-of-10 series, the hundred-thousands, uses the Mòoré terms for the hundreds (*kɔbəga*, PL. *kɔsəma*) obligatorily; the native Koromfe terms *bɛrʊ*, PL. *bɛrʊma* are impossible. Examples are given in (692). My informants (independently of one another) declared the use of the Koromfe terms in this series impossible; however they also all expressed doubts whether such high numbers were ever needed in daily life. The thousands themselves are almost aliens in the Koromfe system of reckoning, and there is little call for even higher numbers.

My informants combined the 'hundreds of thousands' numeral expressions with smaller numeral expressions in the usual way, using *la*, but they

insisted that in practice no one would ever want to count so high and at the same time so precisely.

(692)  *Cardinal numerals involving hundreds of thousands*

| numeral | gloss | numeral | gloss |
|---------|-------|---------|-------|
| tʊsa kɔbəga | '100,000' | tʊsa kɔsəma tãã | '300,000' |
| tʊsa kɔsəma hĩĩ | '200,000' | tʊsa kɔsəma fa | '900,000' |

This last point is borne out by the next highest numeral word, 'million', which is the French loan *mɪlʄɔ̃*, PL. *mɪlʄɔ̃ma* (also *mɪlʄɔ̃fɪ*), as shown in (693). It combines with the other numerals in the normal way.

Since they are so little used, I did not attempt to systematically elicit numbers higher than 9 million, although Kemde once volunteered 20 million and 100 million.

(693)  *Cardinal numerals involving millions*

| numeral | gloss |
|---------|-------|
| mɪlʄɔ̃ | '1,000,000' |
| mɪlʄɔ̃ma hĩĩ | '2,000,000' |
| mɪlʄɔ̃ma tãã | '3,000,000' |
| mɪlʄɔ̃ma fa | '9,000,000' |
| mɪlʄɔ̃ma sofe | '20,000,000' |
| mɪlʄɔ̃ma kɔbəga | '100,000,000' |

### 2.1.6.2 Cardinal numeral forms used as attributes

There exist different forms for cardinal numeral forms used as attributes only for the numerals from 1 to 9. These lose their class prefix when used attributively, and when they immediately follow the noun (or some non-numeral modifier of the noun) which they qualify, as was seen in §2.1.6.1 above. Numerals from 1 to 9 do not lose their class prefix within a longer numeral (where they do not immediately follow the noun which they modify). Recall also that the presence of an attributive cardinal numeral requires that there be no NP-initial article *a*.

Two examples from natural speech are given in (694)–(695); the phrase (696) was elicited.

(694)  ba                     bo    ke   kĕna         naŋsa     ba                    hĩĩ
PRON. 3PL. HUM say  that  woman + PL.  DEICTIC  PRON. 3PL. HUM two

doro  maŋaa  də             nɛ
all   be equal  PRON. 3SG. HUM  to (POSTPOS.)

'They said that both of those wives were equal for him.' *(I.e. he loved both of them equally.)*

(695)  go                         tɪ     a$^{112}$  zenʌ     zenʌ     tãã
PRON. 3SG. NON-HUM put/do  ART.  year + PL.  year + PL.  three

go                         jako       zenʌ     nãã
PRON. 3SG. NON-HUM walk + DUR.  year + PL.  four

'It takes years, three years — four years pass.'

(696)  wakɪa              sofe     subre
5 franc coin + PL.  twenty  pot

'a pot worth 100 francs'

The numeral 1, when used attributively is *dom* (apparently from the count numeral *ndom*) but not *dɔm*. (An adverb with the shape *dɔm* exists meaning 'for the moment'.) There is also an alternative attributive numeral for '1', *dofɛ*, which can only be used attributively. Like the numeral 20, *sofe*, this word seems to have a singulative suffix *-fɛ* (here, quite fittingly). Thus historically *dofɛ* looks as if it is formed from the numeral *dom* plus *fɛ*, with some adjustment of the vowel quality and loss of the *m*. Some non-elicited examples of *dom* and *dofɛ* are given in (697)–(699). Note that the numeral *dom* causes the article to drop in (698) even though it is inside the (syntactic) compound ₙₚ[ₙₚ[*jɪbre dom*]ₙₚ [*sa*]ₙ]ₙₚ 'one-eye owner'. Also, in (699) the determiner *hoŋ* can be used together with *kɛ̃ɔ dofɛ* just as in English *the one wife*.

(697)  ga                   zãŋ  ga               wũndəfe
PRON. DIMIN. SG.  take  PRON. DIMIN. SG.  finger (SINGULAT.)

ga                   tɪ   də           jɪbrɛ     dom
PRON. DIMIN. SG.  do  PRON. 3SG. HUM.  eye + SG.  one

'It (=the spirit of the bush) took its finger and put it on one of his eyes.'

(698)  də                   kɪrɛtɪ  jɪbrɛ    dom  sa
PRON. 3SG. HUM.  become  eye + SG.  one  owner

'He became a one-eyed person.'

(699)  kɛ̃ɔ̃           dʊfɛ  hoŋ            bo ...
       woman + SG.   one   DET. HUM. SG.   say

'The one woman said ...'

The word *dom* also occurs in the expression *dom dom* 'one by one' in sentence (700). Unfortunately, my corpus contains no other such expressions using other numerals. Note here the use of the singular diminutive pronoun *ga* referring to each single spear in turn.

(700)  ba               zãŋgraa        a       baŋsɪɪ       hɛŋ
       PRON. 3PL. HUM.   take + PROG.   ART.    spear + PL.   DET. DIMIN. PL.

       ga               dom    dom
       PRON. DIMIN. SG.   one    one

'They will take the spears one by one.'

There also exist in my texts two occurrences of a single numeral, *hĩĩŋga* 'two', which has a morphological shape shared by no other numeral and which my informants confirmed as being unique in the language. This word seems to be composed of the numeral *hĩĩ* plus the diminutive singular suffix *ga*. I doubt whether it contributes anything more to the meaning of the (plural) noun which it modifies than the normal numeral *hĩĩ*, since in the second of its two occurrences, given in (701)–(702), it is immediately corrected in its numerical value from 2 to 3, and there the normal numeral for '3', *tãã* is used with no additional suffix. Also, example (694) above, where normal *hĩĩ* is used, is taken from the end of the same text.

(701)  a      bɔrɔ         la              də               kɛ̃na         hĩĩŋga
       ART.   man + SG.    and (CONJ.)    PRON. 3SG. HUM.   woman + PL.   three

       la
       COPULA

'(Once upon a time) there was a man and his three wives.'

(702)  də               la              də               bara
       PRON. 3SG. HUM.   and (CONJ.)    PRON. 3SG. HUM.   husband + SG.

       kɛ̃na         hĩĩŋga  ba                dagsə  dəkɔ
       woman + PL.   two     PRON. 3PL. HUM.   add    DISJ. PRON. 3SG. HUM.

       nɛ                (...)          ba                tɪ     ba                tãã
       to (POSTPOS.)    (*mumbling*)   PRON. 3PL. HUM.   make   PRON. 3PL. HUM.   three

'She and her two co-wives... (*interrupted*) (Oh, ) there were three of them.'

*2.1.6.3 Numerals used for counting different kinds of objects*

There are no distinctions in the numerals used for counting different kinds of objects. The class prefixes of the numerals from 1 to 9 are irrelevant in this respect, and are invariant. In particular, there is no other reflex in the numerals of the class system found in the nouns.

*2.1.6.4 The formation of ordinal numerals*

Ordinal numerals, apart from the word for 'first', are always formed regularly by the addition of the suffix *-ndəgʊ* to the last word of the numeral expression. The final vowel (e.g. of *fi* '10') is usually lengthened in the ordinal numeral, but that of *ıhʊrʊ* is not; the final vowel of the latter could be a harmonized 'epenthetic schwa' (cf. §3.2.6.4.2.2), in which case this behaviour is not surprising.

In the ordinal numerals the words for '2' up to '9' keep their class prefix *ı-* when used alone, but lose it when used attributively if they immediately follow the noun, exactly like the cardinal numerals. All the simplex ordinal numerals (not compounded with *la*) are given in (703), and some examples of compound ones in (704). The method of compounding in ordinal numerals is exactly the same as in cardinal numerals.

(703)　*The simplex ordinal numerals*

| *numeral* | *gloss* | *numeral* | *gloss* |
|---|---|---|---|
| pote (SG.), porʌ (PL.) | '1st' | sofeendəgʊ | '20th' |
| ıhĩĩndəgʊ | '2nd' | fĩntããndəgʊ | '30th' |
| ıtããndəgʊ | '3rd' | fĩnaandəgʊ | '40th' |
| mããndəgʊ | '4th' | fĩnɔməndəgʊ | '50th' |
| ınɔməndəgʊ | '5th' | fĩhʊrʊndəgʊ | '60th' |
| ıhʊrʊndəgʊ | '6th' | fĩpɛ̃ɛ̃ndəgʊ | '70th' |
| ıpɛ̃ɛ̃ndəgʊ | '7th' | fĩtɔɔndəgʊ | '80th' |
| ıtɔɔndəgʊ | '8th' | fĩfaandəgʊ | '90th' |
| ıfandəgʊ | '9th' | bɛrʊndəgʊ | '100th' |
| fĩndəgʊ | '10th' | | |

(704)　*Some compound ordinal numerals*

| *numeral* | *gloss* |
|---|---|
| bɛrʊ la gadɔməndəgʊ | '101st' |
| bɛrʊ la fi la gadɔməndəgʊ | '111th' |
| bɛrʊ la fĩntãã la ıhʊrʊndəgʊ | '136th' |

| numeral | gloss |
|---|---|
| bɛrʊma hĩĩndəgʊ | '200th' |
| bɛrʊma hĩĩ la maandəgʊ | '204th' |
| bɛrʊma tãã la fĩpɛ̃ɛ̃ la ɾtããndəgʊ | '373rd' |
| bɛrʊma fa la fĩfa la ɾfaandəgʊ | '999th' |

The word for 'first' is idiosyncratically *pote* (SG.), and is also the only numeral to have a plural form, namely *porʌ* (PL.). In compound numerals, however, *gadɔmandəgʊ* is used, and never *pote*; but *gadɔmandəgʊ* alone, meaning 'first' is impossible.

When used attributively, the ordinal numerals are located in the usual postnominal modifier position, as in (705). Ordinal numerals can also stand alone, or (the more usual case) in a compound genitival NP (of the type NP+N) with *saa* 'owner', as shown in (706). In this construction, *saa* is used in the same way as English *one* in phrases like *the third one*.

(705)  a       dɔɔ         pote        koŋ                   la        bĩnĩŋ
       ART.    animal + SG.  first + SG.  DET. NON-HUM. SG.   COPULA   black + SG.

       'The first animal is black'.

(706)  a       pote        saa         koŋ                   la        bĩnĩŋ
       ART.    first + SG.  owner + SG.  DET. NON-HUM. SG.   COPULA   black + SG.

       'The first one is black'.

The phonetic shape of the ordinal numerals is normally immutable, i.e. they cannot be inflected for the categories of number, humanness or diminutive. This fact is all the more surprising since the *gʊ* part of the suffix *-ndəgʊ* so obviously originates as the non-human singular *gʊ* found as a pronoun and as the basic non-human noun class suffix. Also surprising is the fact that this suffix violates ATR harmony (e.g. *sofeendəgʊ* 'twentieth', and not *sofeendəgu*). This seems to indicate that *-ndəgʊ* might be an independent word; however, its syllable structure makes this analysis very unlikely.

In two sentences in my texts, given in (707)–(708), the expression *taandɔ* occurs instead of *taandəgʊ* 'third' in an attributive usage with a human noun. My informants accepted this as a human-class version of the ordinal numeral in the archaic speech of the (now dead) speaker, but rejected such forms for the present-day language.

(707)  a      kɛ̃ɔ̃         tããndɔ        hoŋgo              bo   ke...
       ART.   woman + SG.  third + HUM.  LONG DET. HUM. SG.  say  that (CONJ.)
       'The third wife said that ...'

(708)  a      kɛ̃ɔ̃         tããndɔ        hoŋ          wileti      də
       ART.   woman + SG.  third + HUM.  DET. HUM. SG. turn round  PRON. 3SG. HUM.

       wũn     dããnɛ
       return  home (ADV.)
       'The third wife turned round and went back home.'

Although it would be hypothetically possible to form compound ordinal numerals above 1000, my informants refused to do so because there is no ordinal numeral for 1000 itself. A form such as *tʊsrɪɪndəgʊ was not accepted.

### 2.1.6.5 Other derivatives of numerals

The only other regular derivative of numerals are the expressions denoting the number of repetitions, as in English *twice, three times (thrice), four times...*, which are formed with a noun-like element *naɪ* followed by an attributive cardinal numeral from 2 upwards. The formation of the numerals follows the normal pattern given in §2.1.6.1 above and is therefore not repeated here. A few examples are given in (709). Note that the *ɪ* at the end of *naɪ* cannot be the numeral-initial class prefix mentioned in §2.1.6.1.1 above because a) this drops when the numeral is used attributively, and b) numerals above 9 have no such class prefix, but these numerals do (e.g. *naɪ kɔbəga* 'a hundred times').

(709)   *Numerals denoting the number of repetitions*

| numeral | gloss |
| --- | --- |
| naɪ hɪ̃ɪ̃ | 'twice' |
| naɪ tãã | 'three times' |
| naɪ naa | 'four times' |
| naɪ kɔbəga | 'a hundred times' |

In this series of numbers the numeral '1' is again the exception; the only way to express the notion of 'once' in Koromfe is with the (obvious Mòoré loan) word *vʊʊgrɪ*.

There exists a temporal adverb *somhɪ̃ɪ̃* 'the day before yesterday' which clearly contains the numeral *hɪ̃ɪ̃* 'two', but there are no parallel

forms with other numerals, and the *som* part of this compound is opaque, the closest related word being *sɔɔnɛ*, PL. *sɔɔjã* meaning 'period of time' (though not necessarily a day).

### 2.1.6.6 The quantifiers

Apart from the numeral '1', *dom*, which is used in conjunction with the negative particle *baa* to express the zero quantifier 'no', there are (lexically) only three general quantifiers in Koromfe, given in (710), plus a Mòoré paraphrase of one of them (*fãã* for *dʊrʊ*, occurring only in the double quantifier *dʊrʊ fãã*, of which there are several tokens in only one text). I have glossed *kãã / kamã* as 'every, all' because this quantifier occurs mainly with singular and rarely with plural nouns, whereas *dʊrʊ* 'all, every' occurs equally freely with singular and plural nouns. The forms *kãã* and *kamã* are free variants; the former seems to be used more frequently.

(710)    *The quantifiers*

| quantifier | gloss |
|---|---|
| maŋəna | 'some' (existential) |
| dʊrʊ | 'all, every, each' (universal) |
| kãã / kamã | 'every, all' |
| fãã | 'all' (universal — loan from Mòoré) |

However, the syntax of the quantifiers is quite complex, thus, for example, the notion 'both' is expressed as *hĩ dʊrʊ*, literally 'two all'. The syntax of the quantifiers is described in §1.2.5.2.6 and §2.1.1.4.19 above.

The quantifier *dʊrʊ* is also used adverbially in several meanings: a) 'only, alone' in the first reading of (711), where the scope of *dʊrʊ* is *n* 'you', b) 'and that's all' in the second reading of (711), where the scope of *dʊrʊ* is the whole clause *n dɛ̃n* 'you pull (him)', c) 'at all', as in (712), where the scope of *dʊrʊ* is again the whole clause *n nãã dɪ* 'if you see him'. Note that in all these usages no additional material is present in the Koromfe sentences to support *dʊrʊ* in the same way as English *and that's all* or *at all*.

(711)  ke            qaa                                      tıgɛ      mə         dɔ̃ĭ
       because (CONJ.)  NEG. PRON. 3SG. NON-HUM.         do + PAST  PRON. 1SG.  join

       dı              n              dɛ̃n doro
       PRON. 3SG. HUM.  PRON. 2SG.  pull  all

       'Because apart from my joining him (i.e. his rope to yours), you (will have to)
       pull (him) alone.' *Or:* '..., you (will) pull (him), and that's all.'

(712)  n              nãã                    dı               doro bı        n
       PRON. 2SG.  see (DEFECTIVE)  PRON. 3SG. HUM.  all  just (ADV.)  PRON. 2SG.

       tabəgə  də                      ŋ            ko
       trample  PRON. 3SG. HUM.  PRON. 2SG.  kill

       'If you see him at all, then just trample on him and kill him.'

## 2.1.6.6.1 Quantifier compounds

Apart from the regular syntactic combinations involving nouns and quanti-
fiers, there exists only one word which might be analysed as a quantifier
compound. In *foŋkãã* (with its free variant *foŋkamã̃*) 'everyone, anyone',
the presence of the velar nasal *ŋ* is phonologically unmotivated. Neither of
the two words from which it is formed, given in (713), contain *ŋ*, and the
regular formation **fo kãã* (or **fo kamã̃*) is ungrammatical. However, such
homorganic nasal stops do occur sporadically elsewhere at morphological
compound boundaries (e.g. *hʊləŋkɔndʊ* described in §2.3.1.2.3 below). On
the other hand, *foŋkãã* may be an analogical formation based on the
(syntactically regular) phrase *kãŋ kãã* (or optionally *kãŋkamã̃*)
'everything', which is also given in (713) for comparison.

(713)  *The quantifier compound* foŋkãã *and the syntactically regular formation* kãŋ
       kãã

| base noun | quantifier |
|---|---|
| fo | kãã |
| person + SG. | every, any |

→

| quantifier compound |
|---|
| foŋkãã *(not* *fo kãã) |
| 'everyone, anyone' |

| base noun | quantifier |
|---|---|
| kãŋ | kãã |
| thing + SG. | every, any |

→

| noun phrase |
|---|
| kãŋ kãã |
| 'everything, anything' |

The question word *nãŋkãã* 'how' also seems to contain the quantifier
*kãã*, and the *nãŋ* part to be related to the adverb *nɛŋ* 'thus' and the inde-
clinable deictic adjective *naŋsa* 'that'.

There is no other means of expressing quantification, therefore §2.1.6.6.2 is inapplicable.

### 2.1.7 Adverbs

Adverbs like the English words with a *-ly* suffix do not exist as a morphological formation in Koromfe; indeed, the adjectives from which they might be formed do not exist as an independent morphological category. Instead, the attributes expressed by adjectives are expressed by nouns (termed 'nominal adjectives') or verbs (termed 'verbal adjectives'). The few adverbs which do exist therefore have no morphological relationship with any adjective and are morphologically invariant.

*2.1.7.1 Comparison*

Comparison of adverbs proceeds in the same manner as comparison of nominal adjectives, which was described in detail in §1.8.1.4.1 above. Morphologically, nothing ever happens to an adverb; comparison is always expressed by a verb, and therefore the comparison is always between two NPs. For these reasons, §2.1.7.1.1–4 are inapplicable.

*2.1.7.2 Degrees of a quality*

Degrees of a quality expressed by an adverb cannot be coded directly on the adverb itself. The modification of an adverb by an adverb was described in §1.2.3.2.1 above. The other possibilities that exist for expressing degrees of a quality (usually expressed by an adverb of degree qualifying a verb) were discussed in §2.1.4.5 above. Therefore §2.1.7.2.1–4 are inapplicable.

### 2.1.8 Clitics

*2.1.8.1 The occurring and non-occurring clitic elements*

*2.1.8.1.1 Personal pronouns*

The clitic personal pronouns are listed in §2.1.2.1.10 above. They occur as prefixes on verbs (when they are the subject of the verb) or as suffixes on verbs (when they are the object — direct or indirect — or the complement). When the verb is the copula *la* the clitic personal pronoun occurs only in the complement (i.e. suffixal) position, as shown in (714) (selected for its great variety of *la*'s). Here *\*la də la (a) dɔɔrɛ* is impossible. In the subject position before *la* a disjunctive (free) pronoun is used, though also

usually avoided in a coordinated sentence such as (714). This restriction may be due to possible ambiguity with the homophonous conjunction *la*, which can occur with a clitic pronoun prefix as in (715). The prefixal clitic pronouns occur freely with all other copular verbs.

(714)    a      bɔrɔ         warəgɪ  la      bɛ      la          (a)
         ART.  man + SG.  tired    EMPH.  come  and (CONJ.)  ART. (*elided*)

         dɔɔrɛ         la       dɪ
         long + SG.  COPULA  PRON. 3SG. HUM.

         'A tired and tall man arrived'

(715)    də               la             də               kɛ̃ɔ̃
         PRON. 3SG. HUM.  and (CONJ.)  PRON. 3SG. HUM.  woman + SG.

         ba               dɪ
         PRON. 3PL. HUM.  eat

         'He and his wife, they ate (him).'

The prefixal clitic pronouns also occur with the dummy stem *kɔ*, e.g. *dəkɔ* from *də+kɔ*, to form the disjunctive or free pronouns (again, see §2.1.2.1.10 for a list of all forms).

With numerals and other quantifiers, the prefixal clitic pronoun is preferred to the free pronoun, as shown in (694) above, repeated here for convenience. Here the subject NP *ba hĩ doru* consists of the prefixal clitic *ba* followed by a numeral 'two' and the quantifier 'all'. This sentence also illustrates the (quite usual) use of the prefixal clitic pronoun with postpositions (here *nɛ*).

(694)    ba                  bo  ke   kɛ̃na          naŋsa   ba              hĩ
         PRON. 3PL. HUM  say  that  woman + PL.  DEICTIC  PRON. 3PL. HUM  two

         doru   maŋaa     də               nɛ
         all     be equal   PRON. 3SG. HUM  to (POSTPOS.)

         'They said that both of those wives were equal for him.' *(I.e. he loved both of them equally.)*

### 2.1.8.1.2 Possessive pronouns

Possessive pronouns are formally free (disjunctive) forms of pronouns, and are therefore never clitics.

### 2.1.8.1.3 Reflexive pronouns

The reflexive pronouns, where used (often a bare verb has a reflexive meaning) are non-clitic, consisting of the word *gɪllɛ* 'self' with a prefixal possessive clitic pronoun, e.g. *də gɪlle* 'himself'.

### 2.1.8.1.4 Reciprocal pronouns

The reciprocal pronoun *dombʌ*, which is in fact the plural of the noun *dono* 'comrade', is not a clitic, but behaves syntactically and morphologically like any other common noun.

### 2.1.8.1.5 Auxiliary verbs

There are no clitic auxiliary verbs; there is no morphological class of auxiliary verbs as distinct from full verbs — in other words, every verb which is used as an auxiliary also has its own meaning as a full verb.

### 2.1.8.1.6 Sentence particles

There are two types of particle which might be considered sentence particles: the sentence-final interrogative particles and the preverbal negative particles (*ba* and arguably also *aa*). The interrogative particles are described in §1.1.1.2.1 and the negative particles in §1.4.1. I do not consider the (apparently) sentence-initial particle *handa* of the yes-no question echo-questions in §1.1.1.2.3.3 to be truly sentence-initial, but rather to be an ellipsis of something like *n handa bole ke...* 'Did you really say that...', where *handa* is a pre-verbal adverb (cf. §1.2.1.3.2.1 above).

### 2.1.8.1.7 Sentence connectives

The element *kɔ* which is described in §1.1.2.3.2 above as a sentential relative pronoun might instead be considered to be a sentence connective. It is the only such element in Koromfe.

### 2.1.8.1.8 Anaphoric particles

There are no anaphoric particles.

### 2.1.8.1.9 Others

### 2.1.8.1.9.1 Possessive adjectives

The possessive adjective clitics are formally identical with the subject clitics found on verbs. The non-clitic (disjunctive or free) pronouns can

also be used. Sentences (716)–(717) were the first two uttered to me in Koromfe by my informant Souleymane; the first contains the disjunctive possessive adjective *mɔkɔ*, the second the clitic possessive adjective *mə*.

(716) mɔkɔ          segre       la       suleimaan
       DISJ. PRON. 1SG.   name + SG.   COPULA   (*proper name*)

       'My (first) name is Souleymane.'

(717) mə           segtʌ            la       sawadɔgɔ
       DISJ. PRON. 1SG.   family name + SG.   COPULA   (*proper name*)

       'My family name is Sawadogo.'

### 2.1.8.2 Positions occupied by the clitics

### 2.1.8.2.1 Preverbal

The preverbal position is occupied by personal pronoun subject clitics. See §2.1.8.1.1 for details. If a negative particle is present, it intervenes between the subject and the verb, as do the adverbs *handa* 'really' and *da* 'in the past' (cf. §1.2.1.3.2.1).

### 2.1.8.2.2 Postverbal

The suffixal personal pronoun clitics occupy the postverbal position when they are the object (direct or indirect) or the complement of the verb (see §2.1.8.1.1 for details).

### 2.1.8.2.3 Sentence-final

The interrogative particles of the various types of yes-no questions (described in §1.1.1.2.1) occupy the sentence-final position.

### 2.1.8.2.4 Sentence-initial

The only clitic, if such it is, which occupies the sentence-initial position is the sentential relative or sentence connective *kɔ* described in §1.1.2.3.2 above.

### 2.1.8.2.5 Sentence-second position

There are no clitics (or anything else) in Koromfe which occupy the sentence-second position.

*Morphology*

### 2.1.8.2.6 Other positions

None.

### 2.1.8.3 The relative order of clitics

There is only one case in which clitics regularly occur adjacent to one another: in sentences with a direct and indirect object. Both types of object can be expressed by a suffixal clitic pronoun. In this case, as described and exemplified in §1.2.1.2.3 above, the indirect object clitic precedes the direct object clitic. However, if either of the objects is a full NP, then the clitic object comes first. Thus the precedence rules for postverbal objects are:

1. Clitic pronouns before full NPs, then
2. Indirect objects before direct objects, provided that 1. is not violated.

### 2.1.8.4 Restrictions on possible combinations of clitics

There are no formal restrictions on the possible combinations of clitic pronouns, so long as the sentence makes sense semantically. Therefore §2.1.8.5 is inapplicable.

## 2.2 Derivational morphology

The only way to derive (a word of) one morphological category from an-other in Koromfe, apart from compound nouns, is by the addition of a suffix. For derived nouns, this suffix is simultaneously the derivational and the class-suffix marker, and it is never longer than one phonetic sylla-ble.

None of the suffixes described below has any similarity with an inde-pendent word of the language that could be considered to be the source of a compound structure. On the other hand, many of the derivational suf-fixes which appear on nouns have similarities with existing noun class suffixes which cannot be accidental; these similarities will be mentioned in the relevant places below.

Many of the derived nouns described below have only one number (usually singular, though for some plural). Recall that it is always possible to form a plural, if needed, by the addition of -*fi* to a singular noun (even if this results in double suffixation). Because this process is so regular, it is not mentioned again in the following sub-sections. The formation of a singular from plural derived nouns (e.g. those with -*mãõ* or -*si*), on the other hand, is impossible.

### 2.2.1 Derived nouns

*2.2.1.1 Nouns from nouns (and nominal adjectives)*

In this sub-section I discuss the derivation of nouns both from 'true nouns' and from nominal adjectives, since these two source categories are both morphologically and syntactically very similar, and the mechanisms of derivation and the suffixes involved are often the same. Although often the derivation of nouns from verbs also involves some of the same suf-fixes, the verbs have been omitted here and are dealt with in §2.2.1.2 be-low.[113]

Nominal adjectives are also formed from nominal adjectives by redu-plication; since the category of the (nominal) adjective is not changed and this process is semantic rather than categorial in nature, it is dealt with under adjective → adjective derivations in §2.2.3.3.

The category DIMINUTIVE is inflectional rather than derivational in Koromfe, and is marked by the noun class suffix -*ga*, PL. -*ni* (described in §2.1.1.9.1.4 above). Since a noun has only one position available for a

noun class suffix (pace the productive default plural suffix -*fi*) no derivation of a DIMINUTIVE from a non-diminutive noun can ever be detected. Also, there exist nouns whose only realization is with the DIMINUTIVE class suffix.

### 2.2.1.1.1 The suffix -dɛ

The class suffix -*dɛ*, which is the singular form of the largest noun class in Koromfe (cf. §2.1.1.9.1.3 above) is used to derive abstract nouns from three terms denoting kinship or friendship, given in (718). The usual phonological processes occur (here, in particular, *d→r*). These are the only such noun → noun derivations in my corpus, but the same suffix is also used to derive deverbal action nouns (cf. §2.2.1.2.0.3.1 below).

(718)    *Noun → noun derivations with the suffix -dɛ*

| singular | gloss | source[114] noun | gloss of source |
|---|---|---|---|
| jommədombre | 'friendship' | jommədombʌ *(PL.)* | 'friends' |
| sabire | 'consanguinity' | sabi (=sa+bi) | 'co-sibling' |
| saandrɛ | 'fatherhood' | sa | 'father' |

The three words in (718) have no regular plural form, according to my informants (probably because of its semantic unlikelihood). Two of the noun stems to which the suffix -*dɛ* is attached are themselves morphologically complex, but with differing internal structures. The third word has (prima facie) more phonetic substance than a simple derivation from the stem *sa* 'father' would let us legitimately reconstruct.

Despite their relative rarity, the transparency of these formations compels me to give a more detailed analysis of each.

### 2.2.1.1.1.1 The word jommədombre 'friendship'

The word *jommədombre* must be derived from the plural form of 'friends', *jommədombʌ*, since the singular form *jommədono* has an alveolar, and not a labial nasal. Moreover, it even looks as if the *b* of the plural class suffix -*ba* has been retained in the compound; though this could be an 'epenthetic' consonant (cf. below on *saandrɛ*).

The stem *jommədom(b)* itself presents a problem. It is clearly composed of (some derivative of) the DURATIVE stem of the verb *jom-* 'follow' and the word *dono*, PL. *dombʌ* 'comrade'. However, the first morpheme could be considered to be either a) a DURATIVE verb stem, *jomm* (with 2

m's) of the verb *jom* 'follow' or b) the plural of the agent noun *jommõ*, PL. *jommǝbʌ* formed from the same DURATIVE verb stem, with its class suffix *-ba* truncated. Schematically:

a) $[jom]_V+[d]_{DUR.}$ → $[jomm]_{VDUR.}$

b) $[[jom]_V+[d]_{DUR.}]_{VDUR.}+[ba]_{HUM.PL.}$ → $[jommǝbʌ]_{NHUM.PL.}$ → $[jomm]$
*(truncation)*

### 2.2.1.1.1.2 The word sabire 'consanguinity'

By contrast, the word *sabire* is formally quite regular, consisting of the genitival NP+N compound[115] *sa* + *bi* 'co-sibling' (from *sa* 'father' and *bi* 'child') plus the suffix *-de*. Schematically:

$[[...[sa]_N]_{NP}+[bi]_N]_{NSTEM}+[dɛ]_{CL.SG}$ → $[sabire]_N$

In this word, as in *jommǝdombre* above, the noun immediately preceding the suffix *-dɛ* already has (or 'counts as having') a class suffix: here *bi*, PL. *bu* 'child' has no separate syllable for its class suffix, but is nevertheless an independent word.

### 2.2.1.1.1.3 The word saandre 'fatherhood'

This word, also derived from *sa*, PL. *sammã* 'father', seems to have the additional phonological length and nasality found in the PLURAL (but not the SINGULAR) of the source noun, though without the labiality of the PLURAL suffix *-ma* (a variant of *-ba*). Even so, the length of this word is exceptional, and may well be due to some additional phonological or morphological material which was present historically.

### 2.2.1.1.2 The suffix -ɪ(ɪ)

Despite the presence of phonetically long and short variants, I consider *-ɪ* and *-ɪɪ* to be one and the same suffix. This suffix, like several others, derives abstract nouns from concrete nouns (and also, like others, from nominal adjectives and verbs). The basic pattern is given in (719).

(719)  *Noun → noun derivations with the suffix -ɪ(ɪ)*

| sing. | gloss | stem | source word | source gloss |
|-------|-------|------|-------------|--------------|
| bikei | 'maidenhood' | bike | bikeɲʌ, PL. bikeni | 'girl' (cf. *bi* 'child' and *kɛ̃ɔ* 'woman') |
| dɔɪ | 'length' | dɔ / dɔɔ | dɔɔrɛ, PL. dɔɔja | 'long' |
| jɪɪ | 'chief family' | j / jɪ / jɪɪ | jɔ, PL. jɪɪba | 'chief' |

| sing. | gloss | stem | source word | source gloss |
|---|---|---|---|---|
| kʊsaɪ | 'friendship' | kʊs / kʊsa | kʊsa, PL. kʊsama | 'lover, fiancé(e)' |
| sɔbɪɪ | 'hunting' | sɔb | sɔbɔ, PL. sɔpa | 'hunter' |

Each of these words presents its own problem(s) of analysis; I have tried to give all putative variants of the stem shape. In addition, it is not clear whether *sɔbɪɪ* 'hunting' is derived from the noun *sɔbɔ* 'hunter' or from the verb *sɔb(ɔ)lam* (stem *sɔb(ɔ)l-*) 'hunt'.[116] On balance, I think that if we have to choose a specific source word (rather than a common lexical stem), the noun is more likely. The final vowel of the derivational suffix *-ɪ(ɪ)* is long after a consonant but short after a vowel. It is quite probable that the suffixes *-lɛɪ* and *-Vɪ*, described in §2.2.1.1.3 and §2.2.1.1.4 respectively, are genetically related to this suffix.

When it follows a nasal consonant, the suffix vowel is lowered and nasalized to *-ɛ̃ɛ̃*, as shown by the examples in (720). (Cf. §3.4.1.1.1.1 on this general phonological process of the language.)

(720)   *Noun → noun derivations with the suffix* -ɪ(ɪ)

| singular | gloss | stem | source word | source gloss |
|---|---|---|---|---|
| barəkɛ̃nɛ̃ɛ̃ | 'jealousy' | barəkɛ̃n | barəkɛ̃ɔ, PL. barəkɛ̃na | 'co-wife' |
| fɔ̃nnɛ̃ɛ̃ | 'fear' | fɔ̃nn | fɔ̃nnɔ, PL. fɔ̃nnəba | 'afraid' |
| kannɛ̃ɛ̃ | 'bitterness' | kann | kanna (VERBAL ADJ.) | 'bitter' |
| zamɛ̃ɛ̃ | 'badness' | zam | zamdɛ (SG.) | 'bad' |

The first word in (720) is the clearest example, being clearly derived from the compound *barəkɛ̃ɔ* (*bara* 'husband' plus *kɛ̃ɔ* 'woman'). The word *fɔ̃nnɛ̃ɛ̃* could equally be considered to be derived from the DURATIVE stem of the defective verb *fɔ̃nnaa* (PROG.) 'fear'. The source word *fɔ̃nnɔ* given here is an agent noun derived from the defective verb; the source word *kanna* is both a verbal adjective and (in its participial usage) an indeclinable attributive adjective which has no other inflectional forms. The source word *zamdɛ* has no plural form in my corpus, but the related compound *kɪzamdɛ* 'ugly' (from *kɪ* meaning 'body' in compounds[117] and *zamdɛ* 'bad') has the regular plural *kɪzama* of the *dɛ/a* noun class.

A further set of abstract nouns, given in (721), seems to be derived from verb stems via the agent noun in the same way as *fɔ̃nnɛ̃ɛ̃* from *fɔ̃nnɔ* in (720) above.

(721)  *Noun → noun derivations with the suffix -ɪ(ɪ)*

| *singular* | *gloss* | *stem* | *source word* | *source gloss* |
|---|---|---|---|---|
| jarfɪ | 'slowness' | jar+f | *jarfɔ[118] | 'slow' |
| laɡfɪ | 'fear' | laɡ+f | laɡfɔ | 'afraid' |
| sɪɡfɪ | 'silence' | sɪɡ+f | sɪɡfɔ | 'silent' |

The verbs *lag-* 'fear' and *jar-* 'calm' each have a normal gerund-like verbal noun (*lagam* and *jaram* respectively) alongside the *-ɪ(ɪ)* derivation given here. The defective verb *sɪgfaa* (PROG.) 'be quiet' has only a PROGRESSIVE and a DURATIVE form. Each of the derived nouns in (721) is formed from the (less regular) DURATIVE verb stem in *-f* (the stem which is also the stem of the agent noun — cf. §2.2.1.2.0.1 below). The verb *jar-* also has a regular DURATIVE stem *jat-*; moreover this word has no agent noun *\*jarfɔ*.[118] The words in (721) seem to indicate that the DURATIVE stem in *-f* was once more widespread in the language than it is today.

### 2.2.1.1.3 The suffix -lɛɪ

The suffix *-lɛɪ* is used to derive abstract nouns from both nouns (exemplified here in (722)) and verbs (where they are the normal action noun of the verb concerned — see §2.2.1.2.0.3.3 below). The noun derivations are of the same type as for the suffix *-Vɪ*, i.e. an abstract noun is derived from a concrete noun expressing some quality of a human being. These derived nouns have no plural form.

(722)  *Noun → noun derivations with the suffix -lɛɪ*

| *singular* | *gloss* | *stem* | *source word* | *source gloss* |
|---|---|---|---|---|
| bilei | 'childhood' | bi | bi, PL. bu | 'child' |
| kɛ̃ɔ̃lɛɪ | 'femininity' | kɛ̃ɔ̃ | kɛ̃ɔ̃, PL. kɛ̃na | 'woman, female' |
| zabrɛɪ | 'awkwardness' | zab | zakʋ, PL. zapa | 'silly person' |

The 'stem' *kɛ̃ɔ̃* 'woman' given in (722) is unusual in that it has the class suffix *-ɔ* (which is absent in the plural form *kɛ̃na* 'women'). This type of derivation from a noun **with** its class suffix is rare and unproductive in Koromfe, unless the class suffix is zero, as in *bi* 'child'.

The third word in (722) has a suffix *-rɛɪ* which I have included here as a (probable) variant of the suffix *-lɛɪ*. This is the only word with that suffix variant, but its derivational status is quite clear. The assimilations of stem-final *b* to (half of) *k* in *zakʋ* (from *zab+gʋ*) and (half of) *p* in *zapa* (from

*zab+ba*) in the source word are perfectly regular morphophonological processes (cf. §2.1.1.9.1.2.2 and §2.1.1.9.1.1.1 respectively).

### 2.2.1.1.4 The suffix -V₁

The suffix -V₁ contains a first vowel which harmonizes with the preceding vowel (i.e. the vowel of the lexical word stem) for ATR, backness, roundness and height, except that it cannot be high. This is the normal vowel harmony for non-final 'epenthetic' vowels (cf. §3.2.6.4.2.1 below).

The nouns which take this derivational suffix and are clearly derived from nouns are given in (723). This suffix has a SINGULAR form only and forms an abstract noun from a concrete noun denoting some particular quality of a human being.

(723)    *Noun → noun derivations with the suffix* -V₁

| sing. | gloss | stem | source[114] noun | gloss of source |
|-------|-------|------|------------------|-----------------|
| hãnãɪ̄ | 'goodness' | hãn | hãnãŋ, PL. hãnɪ̄ã | 'good' |
| ĵĩnei | 'blindness' | ĵĩn | ĵĩniɲʌ, PL. ĵĩnini | 'blind person' |
| senei | 'beauty' | sen | seno, PL. senəbʌ | 'young, beautiful' |
| wũmoi | 'deafness' | wũm | wũməɲʌ, PL. wũməni | 'deaf person' |

The absence of a harmonized full vowel in the second syllable of all the source words except *hãnãŋ*[119] shows that the penultimate vowel of the derived nouns (*ã, e* and *o* in these examples, but more variety in §3.2.6.4.2.1 below) must be attributed to the suffix (i.e. either to the lexical form of the suffix or to the process of suffixation). Note, however, the existence of the suffix -*ɪ* (described in §2.2.1.1.2 above), which also derives abstract from concrete nouns. This seems to cast doubt on the above analysis of the penultimate vowels; nevertheless I consider the -V₁ and -*ɪ* suffixes to be distinct in the present state of the language — although this, of course, does not preclude a common historical source.

The stem of the word *bikeŋa* is probably a historical compound of *bi* 'child' and *kɛ̃* as in *kɛ̃ɔ̃* 'woman'; the other three words seem to have a monomorphemic stem.

One word which seems to have an analogous derivation is *sɔmɔ̃ɛ̃* 'redness' from *sɔmdɛ*, PL. *sɔma / sɔmɪa* 'red'. However, here the suffix is (idiosyncratically) nasal and therefore the final *ɪ* of the suffix (phonologically regularly) lowered to *ɛ̃*.

*2.2.1.2 Nouns from verbs (and verbal adjectives)*

The derivation of nouns from verbs can usefully be divided into two types; those whose formation is completely regular and those which are idiosyncratically possible with particular verbs. All of the regular formations which use the DURATIVE verb stem seem to be available for all verbs in Koromfe (apart from those suppletive verbs which have no DURATIVE stem); the formations which use the bare or UNMARKED verb stem are somewhat restricted in occurrence.

*2.2.1.2.0.1 Regular derivations from the durative verb stem*[120]

The table given in (724) shows the full range of regular derivations of nouns from verbs, with the exception of the gerund-like deverbal action noun described in §2.2.1.2.0.2 below. These nouns are potentially available for every noun, but do not occur if a) an idiosyncratically formed alternative is available, or b) no such noun is ever needed for semantic reasons. They are always formed from the DURATIVE stem of the verb; those defective verbs which have no DURATIVE stem also cannot form the regular derived nouns described here. These derivations are always possible, no matter whether the DURATIVE stem is itself formed with the more regular -*d* suffix, the less regular -*f* suffix, or by some irregular means.

(724)   *Verb → noun derivations (regular) exemplified with the verb* tuk- *'sit', DUR.* tuf(u)[121], *i.e. DUR. STEM* tuf-

| noun | suffix | category | gloss |
|------|--------|----------|-------|
| tufo | -ɔ | AGENT | 'sitter (SG.)' |
| tufəbʌ | -ba | AGENT | 'sitter (PL.)' |
| tufəgu | -gʊ | INSTRUMENT | 'bench (SG.)' |
| tufəhɛ̃ | -hɛ̃[122] | INSTRUMENT | 'bench (PL.)' |
| tufəgʌ | -ga | INSTRUMENT DIMINUTIVE | 'seat (SG.)' |
| tufəni | -nɪ | INSTRUMENT DIMINUTIVE | 'seat (PL.)' |
| tufəfʌ | -fa | LOCATION[123] | 'seat (SG.)' |

The term 'agent' is perhaps something of a misnomer from a strict semantic point of view, since the derived noun can designate any human who would be the subject of the corresponding verb, even if (s)he has some semantic role other than the strict agent (e.g. a patient or benefactive), e.g. *sɪbrɔ* 'dying person' from *sɪb-* 'die' or *darɔ* 'winner' from *da-* 'win'.

Each of the 'derivational' suffixes in (724) is also the noun class suffix of the derived noun — in other words there are no morphemes which overtly express the derived morphological category and nothing else.[124] Also, these derivational suffixes, with the exception of the location suffix -*fa* all also occur as a) noun class suffixes on underived nouns (cf. the relevant sub-sections of §2.1.1.9.1 above) and b) clitic pronouns. However, there are some phonological perturbations: -*ɔ* (SG.) and -*ba* (PL.) are the suffixes of the *ɔ/ba* basic human class, and *ba* is the 3rd person plural human clitic pronoun (prefix and suffix). But there is no pronoun \**ɔ* for the 3rd person singular (where instead the historically unexpected[125] prefix *də* and suffix *dɪ* are found). *gʊ* (SG.) and *ɪ* (not *hɛ̃*) are the suffix morphemes of the *gʊ/ɪ* basic non-human noun class and the prefixal forms of the **subject** clitic pronouns; but *hɛ̃* (corresponding to the derived plural suffix of the instrument noun) is the suffixal **object** clitic pronoun form. Finally, *ga* is the singular suffix of the diminutive noun class and the 3rd person diminutive clitic pronoun (prefix and suffix), but the corresponding plural *nɪ* exists only as a noun class suffix and not as a clitic pronoun (which remains an unfilled gap[126] in the pronoun system).

Clearly there is a close historical relationship between the non-human plural suffixes -*hɛ̃* and -*ɪ*, as shown by the fact that both forms occur in the clitic pronouns; the mid vowel *ɛ* occurs frequently as the reflex of an expected high front vowel *ɪ* in a nasal environment (e.g. as the final harmonized 'epenthetic' vowel of DURATIVE verb forms such as *fɛ̃ŋənɛ* /fɛŋ+d+(ɪ)/). It would seem that *hɛ̃* is a phonologically strengthened version of the suffix which is required in order to preserve the distinctness of the agent and pronoun suffix vis-à-vis the DURATIVE verb form (when the harmonized 'epenthetic' final vowel would be *ɪ*).

## 2.2.1.2.0.2 Regular derivation from the bare verb stem

### 2.2.1.2.0.2.1 The suffix -am

The derivation of an action noun from a verb normally (i.e. for all regular and most irregular verbs) consists in adding the suffix -*am* to the bare verb stem (i.e. the UNMARKED verb form). Examples are given in (725). This suffix is the closest that Koromfe comes to having an infinitive or gerund; however, its syntactic behaviour is absolutely noun-like.

(725)   *Verb → noun derivations of regular action nouns from the bare verb stem with the suffix -am (examples randomly chosen from letter g of my corpus)*

| action noun | stem | gloss |
|---|---|---|
| ɡalam | ɡal- | 'swim' |
| ɡamsam | ɡams- | 'straddle' |
| ɡanam | ɡan- | 'bandage' |
| ɡanatam | ɡanat- | 'undo' |
| ɡanamam | ɡanam- | 'wind (a turban)' |
| ɡaŋam | ɡaŋ- | 'refuse' |
| ɡaŋɡalam | ɡaŋɡal- | 'refuse' |
| ɡaram | ɡar- | 'cook (special way)' |
| ɡʌbʌm | ɡʌb- | 'bang (together)' |
| ɡʌrʌm | ɡʌr- | 'turn' |
| ɡɛbam | ɡɛb- | 'pound' |
| ɡelʌm | ɡel- | 'know' |
| ɡɪllam | ɡɪll- | 'prevent' |
| ɡɪram | ɡɪr- | 'judge' |

This action noun can be formed from every regular non-defective verb, and from many irregular verbs, but is rare (though sometimes nevertheless possible) if the verb has a different (idiosyncratic) action noun. Thus for example from the (regular) verb *dɪ-* regular *dɛɛm* 'eating' is a possible word, but idiosyncratic *dɪʊ* also exists and is preferred.

The regular action nouns with *-am* almost always have phonetic final [am] or [ʌm]; but it is subject to one regular phonological assimilation process when the verb stem has the shape CV and the stem vowel is not low (i.e. *a* or *ʌ*). Examples are given in (726).

(726)   *Verb → noun derivations of regular action nouns from the bare verb stem with the suffix -am and assimilation to the vowel of a CV verb stem*

| action noun | stem | gloss |
|---|---|---|
| dɛɛm | dɪ | 'eat' |
| foom | fu | 'drag oneself' |
| ɡɔɔm | ɡɔ | 'go back' |
| jɔɔm | jʊ | 'jump, fly' |
| leem | li | 'forget' |

The phonetic shapes of this suffix show clearly that, despite possible semantic similarities, this *-am* is phonologically quite distinct from the

noun class suffix -*m* (SG. suffix for mass nouns, e.g. liquids — cf. §2.1.1.9.1.7 above). The vowel *a* of the suffix -*am* always leaves its phonetic mark, either as a vowel [a]/[ʌ] between consonants or with a lengthened mid vowel as in the words in (726); a short mid vowel as for example in *hem* 'water' never occurs in a deverbal action noun. So here -*am* could be analysed as being a compound suffix containing -*a* as the deverbal action noun formative and -*m* as the noun class suffix proper. Apart from the derivations involving the DURATIVE stem, when regularly formed from the UNMARKED verb stem with -*d* and the ubiquitous default plural suffix -*fı*, this is the only case I know of where arguably more than one suffix is added to a Koromfe word stem. I am therefore doubtful whether the 'compound suffix' analysis of -*am* is correct.

### 2.2.1.2.0.2.2 The plural suffix -mãõ

This suffix, exemplified in (727), is one of the few that derive a PLURAL noun (for which there is no corresponding singular). It is added to the bare stem of the verb and produces a noun which normally means 'things which are X-ed', where X is the meaning of the verb concerned. (Only 'search' is an exception.) This suffix is one of the few places where Koromfe comes close to having anything resembling passive morphology. (Recall that the UNMARKED form of the verb, when used participially as an attributive adjective, can have an active, reflexive or passive meaning.)

(727)    *Verb → noun derivations of plural nomina acti from the bare verb stem with the suffix* -mãõ

| nomen acti plural | gloss | verb stem | gloss of verb |
|---|---|---|---|
| bırəmãõ | 'ripe (things)' | bır- | 'ripen' |
| fɛrmãõ | 'cultures, plants' | fɛr- | 'cultivate' |
| halmãõ | 'possessions' | hal-[127] | 'possess' |
| lagəmãõ | 'fear, fearful things' | lag- | 'fear' |
| larəmãõ | 'search' | lar- | 'look for' |
| tɔkmãõ | 'clearing' | tɔk- | 'cut' |

The phonological similarity of this suffix to the plural noun class suffix -*ma* is unmistakable; however, none of these formations can have -*ma* instead of -*mãõ*. Whether this was historically a case of double suffixation (with -*ma* and the suffix -*o* described in §2.2.1.2.0.3.5 below) I cannot say;

my informants considered -*mãõ* to be a single indivisible unit. Synchronically double suffixation is very rare.

### 2.2.1.2.0.2.3 The suffix -SI (PL.)

In my corpus, this suffix only occurs on the 3 nouns given in (728), and my informants rejected similar formations with other verbs. The phonological and semantic similarities of the 3 verbs involved is striking. With so few forms available, it is impossible to say whether a verb-stem-final *m* is a prerequisite for the use of the -*si* suffix. Semantically, the activities denoted can be regarded as multiple single events, and it is a mystery to me why the DURATIVE verb stem is not used, since a DURATIVE finite verb typically expresses multiple events.

Koromfe has no native noun class suffix -*si*, but this plural suffix does exist on Mòoré loan words. Whether the 3 verbs in (728) were (ever) Mòoré loans I cannot say, but they are the only verbs with these meanings, which would seem to indicate that they ought to be a part of the native vocabulary.

(728)    *Verb → noun derivations of plural action nouns from the bare verb stem with the suffix -SI*

| action noun plural | gloss | verb stem | gloss of verb |
|---|---|---|---|
| komsi | 'crying' | kom- | 'cry' |
| mɔ̃msɪ | 'laugh' | mɔ̃m- | 'laugh' |
| timsi | 'fight' | tim- | 'fight, struggle' |

### 2.2.1.2.0.3 Idiosyncratic derivations

The irregular derivations of nouns from verbs are mainly action nouns derived from the bare verb stem, many of which involve suffixes which are also used for noun → noun derivations of abstract nouns described in §2.2.1.1 above.[128] Since all of the derivations dealt with in the following sub-sections contain words which use the bare verb stem as their base, this fact will not be mentioned again except in the few cases of individual words which are derived from some other base.

### 2.2.1.2.0.3.1 The suffix -dɛ

In contrast with other deverbal action nouns, some of those with the suffix -*dɛ* also have a plural form, though only when they have been extended from their action-noun usage to designate more concrete things such as

*hullre* 'gutter' (from the verb 'drip') or *hubtre* 'communal work' (from the verb *hubt-* 'get up early'). The suffix allomorphy is phonologically determined and identical with that of the *dɛ/a* noun class described in §2.1.1.9.1.3 above. Examples are given in (729).

(729)  *Verb → noun derivations of action nouns from the* UNMARKED *stem of verbs with the suffix* -dɛ. *(The action noun stem is identical with the verb stem.)*

| action noun sg. | plural | gloss | verb stem | verb gloss |
|---|---|---|---|---|
| bireŋgre | --- | 'twilight' | bireŋ- | 'blacken, darken' |
| zɔgrɛ | --- | 'climbing' | zɔgɔl- | 'climb' |
| hullre | hullʌ | 'gutter' | hull- | 'drip' |
| ŋgore | --- | 'absence' | ŋgo-[129] | 'lack, be missing' |
| hubtre | hubtʌ | 'communal work' | hubt- | 'get up early' |
| homde | (homdefi)[130] | 'dry season' | hom- | 'copulate'[131] |

*2.2.1.2.0.3.2 The suffix* -ɪ(ɪ)

This suffix can be found predominantly attached to verbal adjectives, which themselves seem mainly to be derived from nominal adjectives with an *-m* suffix (followed by the *-aa* suffix of the PROGRESSIVE). The term 'action noun' is slightly misleading here insofar as the verbs themselves describe states rather than actions; the derived nouns are thus abstract nouns denoting the quality inherent in the verbal adjective. Some examples of verbal adjective → noun derivations are given in (730).

(730)  *Verb → noun derivations of 'action nouns' from the* UNMARKED *stem of a verbal adjective with the suffix* -ɪ(ɪ) *(here nasalized to* -ɛ̃ɛ̃ *following the nasal* m)

| action noun | stem | gloss | verbal adjective | nominal adjective | gloss |
|---|---|---|---|---|---|
| dɔnəmɛ̃ɛ̃ | dɔn+m | 'goodness' | dɔnda[132] | dɔnda | 'good' |
| pɔ̃nəmɛ̃ɛ̃ | pɔ̃n+m | 'whiteness' | pɔ̃nəmaa | pɔ̃nɔ̃ŋ, PL. pɔ̃nĩa | 'white' |
| pɔtəmɛ̃ɛ̃ | pɔt+m | 'abundance' | pɔt(ʊ)[133] | pɔt(ʊ) (INDECL.) | 'much' |
| wʊrfɪɪ | wʊr+f | 'smallness' | wʊrfaa | ---[134] | 'be small' |

Recall also that there exist a few similar deverbal action nouns such as *fɔ̃nɛ̃ɛ̃* in (720) and *lagfɪ* in (721) above derived, in my opinion, from the agent noun; but arguably derived directly from the DURATIVE stem of their verbs. Also, forms such as *kannɛ̃ɛ̃* in (720) could equally belong in this

class of derivations; its source word *kanna* is both an indeclinable attributive adjective and a verbal adjective.

The only action nouns derived from a full verb in my corpus is *tɔɪ* 'marriage', from the verb *tɔ-* 'marry (a woman), plunder'[135] and *hɔ̃nɛ̃ɛ̃* 'play, game' from *hɔ̃n-* 'play, dance'. The former verb also has a regular action noun in *-am*, *tɔɔm*, while the latter has none.

One noun, *horei* 'running, flight' might be considered to have an irregular *-ɛɪ* variant of the *-ɪ(ɪ)* suffix (in which case it is the only such derivation from the DURATIVE stem of the verb), or an irregular *-rɛɪ* variant of the *-lɛɪ* suffix. This one verb also has an anomalous extra *e* (i.e. *hoe* instead of expected *\*ho*) in its UNMARKED form and no regular action noun in *-am*. The full inflectional paradigm of this verb, meaning 'run' is:

*hoe* (UNMARKED and PAST), *horu* (DUR.), *horʌʌ* (PROG.)

### 2.2.1.2.0.3.3 The suffix -lɛɪ

This suffix derives 'action nouns' of a less active kind, since the verbs involved are mainly of a psychological stative type. Many of these verbs are inflectionally defective or irregular or both. In some of the derivations, what looks like the DURATIVE stem of the corresponding verb is used (though the only clear case is *tuflei*, since the other verbs are defective). To save space and increase readability, the individual idiosyncrasies of the words in (731) are dealt with in footnotes. In contrast with the other derivations from verbs, I have not attempted here to give a stem to which *-lɛɪ* is attached; instead, the 'verb' column of (731) lists the inflectional forms of the verb.[136] Compare also the (more regular) noun → noun derivations with the same suffix in §2.2.1.1.3 above.

(731)    *Verb → noun derivations of 'action nouns' (state nouns) from the UNMARKED or DURATIVE stem with the suffix -lɛɪ*

| action noun | gloss | verb | gloss |
|---|---|---|---|
| dɛɪlɛɪ | 'ability' | dɛɪ[137] (UNMARKED) | 'be able (to)' |
| felei | 'existence' | fef(u)[138] (DUR.) | 'existence' |
| jɛ̃lɛɪ | 'knowledge' | ja̋[139] (UNMARKED) | 'know' |
| kɛ̃lɛɪ | 'superiority' | kɛ̋[140] (UNMARKED) | 'surpass' |
| niilei | 'seeing' | ni/na/naa̋[141] (UNMARKED) | 'see' |
| tuflei | 'existence' | tuko (UNM.), tuf(u) (DUR.) | 'sit; exist' |
| wɛ̃ɛ̃lɛɪ | 'existence' | wɛ̃ (UNMARKED) | 'be, exist' |

| action noun | gloss | verb | gloss |
|---|---|---|---|
| wɔ̃flɛɪ | 'having' | wɔ̃f(ʊ) (DUR.) | 'have' |
| zɔmlɛɪ | 'wish' | zãã (UNM.), zɔmm(ɔ̃) (DUR.) | 'want' |

### 2.2.1.2.0.3.4 The suffix -Vɪ

The suffix -Vɪ derives action nouns from the bare UNMARKED stem of the verb. The verbs involved are typically, but not always, verbal adjectives (which are also used as indeclinable attributive adjectives), although many of the words given in (732) have related verbs derived from the same stem by the addition of an -s or -t suffix, a regular verb-forming process described in §2.1.3.1.3.1.1.

(732)   *Verb → noun derivations of 'action nouns' (state nouns) from the UNMARKED or DURATIVE stem with the suffix -Vɪ*

| noun | gloss | source | source category | source gloss |
|---|---|---|---|---|
| jãŋaɪ | 'similarity' | jãŋ-[142] | full verb | 'resemble' |
| jagaɪ | 'freshness' | jagalɪ | verbal adj. | 'be fresh' |
| kãŋãɪ | 'difficulty' | kãŋna[143] | verbal adj. | 'be hard' |
| sabaɪ | 'gaiety' | sab+t- | (related) full V | 'mock' |
| boŋoi | 'love' | boŋ-[144] | defective V | 'love' |
| bunoi | 'stealing' | bun+(V)l-[145] | full verb | 'steal' |
| duboi | 'weight' | dub+s | (related) full V | 'respect'[146] |
| homoi | 'heat' | hom-[147] | full verb | 'copulate' |
| toŋoi | 'sourness, acidity' | toŋnʌ[143] | verbal adj. | 'be sour' |
| toŋɔɪ | depth | toŋəna[143] | verbal adj. | 'be deep' |

### 2.2.1.2.0.3.5 The suffix -ʊ

The action nouns derived with this suffix seem to cause the loss of a stem-final *l* or *n* (the latter with nasalization of the final vowel sequence). These words, given in (733), have a relatively high token frequency but low type frequency (these being the only such derivations in my corpus).

(733)  *Verb → noun derivations of action nouns from the bare verb stem with the suffix -ʊ*

| action noun | stem | gloss | verb unmarked | verb past | verb durative | gloss |
|---|---|---|---|---|---|---|
| bɛ̃ṍ | bɛn | 'coming' | bɛ | bɛnɛ | bɛll(ɪ) | 'come' |
| dɪʊ | dɪ | 'eating; food' | dɪ | dɛ | dɪr(ɪ) | 'eat' |
| jeu | jel | 'look' | je | jele | jell(i) | 'look at' |
| nɛ̃ṍ | nɛ̃ | 'defecation' | nɛ̃ | nɛ̃ | nɛ̃nɛ | 'defecate' |
| pãṍ | pan | 'gift' | pa | panɛ | pand(ɪ) | 'give' |

The phonological shape of the stems of the verbs with the UNMARKED form *bɛ*, *je* and *pa* is uncertain: *bɛ* has a stem *bɛn* in the PAST but *bɛl* in the DURATIVE; *je* has the stem *jel* in all other inflectional forms; *pa* has the stem *pan* in all other inflectional forms, but the DURATIVE *pand(ɪ)* is unexpected. Other verbs[148] with a *CVn* stem shape have forms corresponding to *\*pann(ɪ)*; the shape *Vnd(ɪ)* occurs only as a reflex of /*Vl+d*/ (also in verbs loaned from Mòoré). This would lead to the conclusion that the historical source of the verb stems for 'come' and 'give' were something like *bɛĩ* and *paĩ* respectively, where *ĩ* is a 'nasal *l*' (a typologically improbable sound). Even so, it is a mystery why the DURATIVE forms *bɛll(ɪ)* and *pand(ɪ)* differ in their last two consonants. In the present state of the language, all the words in (733) must be regarded as simply irregular, despite the presence of a clearly recognizable suffix *-ʊ*.

One word which also has a *-ʊ* suffix is *hãnãṍ* 'good turn', which is derived from the stem *hãna* (idiosyncratically including the final *a*) of the verbal adjective *hãna* 'be good'. Though clearly related, this word can hardly be derived from the nominal adjective *hãnãŋ*, PL. *hãnĩã* 'good' because a) the nominal adjective stem is *hãn*, without a final *a*, and b) there exists another (regular) derivative of *hãnãŋ* with the suffix *-Vɪ* (described in §2.2.1.1.4 above), namely *hãnãĩ*.

*2.2.1.2.1 The similarity of the syntax of deverbal nouns to that of sentences and of non-derived nouns*

The syntax of deverbal nouns is entirely (non-derived) noun-like. No deverbal noun can take an object or other argument of a verb, or be qualified by an adverbial which does not also qualify non-derived nouns.

The most striking example of this behaviour is the regular action noun derivable from most verb stems by the suffix *-am*, which I consider to be
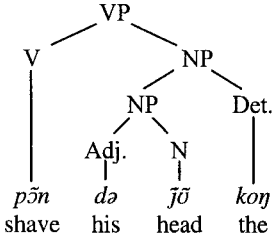
the most verb-like of the deverbal nouns. This noun can be combined with a noun which, in a finite clause, would be its object only by means of an NP+N genitival compound — in which case the order of the two nouns is the converse of the verb and its object NP in a finite clause. An example of each construction type is given in (734)–(735), which are separated by only one intervening sentence in one of my texts.

(734) a        kiŋkirgʌ                      kɛŋ                  bo   ja     ke
      ART.  spirit of the bush + SG.  DET. DIMIN. SG.   say  EMPH.  that (CONJ.)

      də                        zoromʌʌ      də                    ȷ̃õ
      PRON. 3SG. HUM.  ask for + PROG.  PRON. 3SG. HUM.  head (SG.)

      pɔ̃nam
      shave (GERUND)

      'The spirit of the bush said that he (would like to) ask for a shave of his head.'

(735) ba                       pɔ̃n   də                    ȷ̃õ            koŋ
      PRON. 3PL. HUM.  shave  PRON. 3SG. HUM.  head (SG.)   DET. NON-HUM. SG.

      doro  takɪ  ba                       kɛndɪ
      all    all    PRON. 3PL. HUM.  finish

      'They shaved his head, all of it, (until) they were finished.'

In the finite clause (735) the object NP *də ȷ̃õ koŋ* 'his head' **follows** the finite verb *pɔ̃n*, but in (734) the deverbal noun *pɔ̃nam* 'shave' is the second element of the compound *də ȷ̃õ pɔ̃nam* and the NP *də ȷ̃õ* 'his head' **precedes** it. The structure of the verb phrase of the finite clause is given in (736) and the structure of the nominalized construction in (737).

(736)  *The structure of the finite verb phrase* pɔ̃n də ȷ̃õ koŋ *'shave his head'*

```
              VP
           /      \
          V        NP
          |       /   \
          |     NP     Det.
          |    /  \      |
          | Adj.   N     |
          |  |     |     |
        pɔ̃n  də   ȷ̃õ   koŋ
       shave his  head  the
```

(737)   *The structure of the complex noun phrase* dɔ ɟõ pɔ̃nam

```
            NP
          /    \
        NP      N
       /  \     |
    Adj.   N    |
     |     |    |
     də    ɟõ   pɔ̃nam
     his  head  shave
```
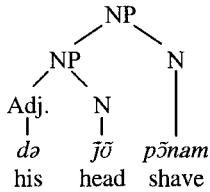
### 2.2.1.3 Nouns from adjectives

Since adjectives are either nominal or verbal, the derivation of nouns from adjectives is dealt with under noun → noun derivations (in §2.2.1.1 above) or verb → noun derivations (§2.2.1.2).

Recall that syntactically a nominal adjective is in effect already a noun and can be used alone as the main noun of an NP, as exemplified in (738). This (elliptical but perfectly normal) sentence is the answer to the question 'Into which cooking-pot did you put the water?'.

(738)   a       kebre       koŋ                     ni
        ART.    big + SG.   DET. NON-HUM. SG.       in (POSTPOS.)

        'Into the big one.'

Indirectly, nouns (i.e. nominal adjectives) are formed from nominal adjectives by the reduplication of adjectives; however, since the category of the adjective is not changed and this process is semantic rather than categorial in nature, it is dealt with under adjective → adjective derivations in §2.2.3.3 below.

### 2.2.1.3.1 The similarity of the syntax of deadjectival nouns to that of sentences and of non-derived nouns

There are no deadjectival nouns as distinct from normal nouns, and their syntax is completely noun-like and not at all similar to that of a sentence.

### 2.2.1.4 Nouns from adverbs

There are no cases that I know of where a noun is derived from an adverb to be used syntactically as a noun. The alternative word *jereŋʌ* 'here' for *jere* 'here' looks as if it may have a diminutive *-ga* suffix, but its usage is exactly the same as the source word, i.e. purely adverbial.

## 2.2.1.5 Nouns from any other category

No nouns are derivable from any other category in Koromfe.

## 2.2.2 Derived verbs

### 2.2.2.1 Verbs from nouns

The derivation of verbs from nouns, if it exists, is difficult to detect because the class suffix of the noun is never preserved in any morphological derivation (in contrast with the NP+N compounds, cf. §2.3.1.1.3–4 below). We therefore commonly have the situation where there exist a verb and a noun with the same or a very similar stem, but no derivational morpheme on either the verb or the noun (or only those verbal morphemes which also occur on non-derived verbs).

### 2.2.2.1.1 The 'suffixoid' -Vl

There exist 4 sets of words in my corpus, given in (739), which suggest that the suffix-like verbal element -*Vl* may originally have been a suffix deriving verbs from nouns. However, there exist many more verbs ending in -*Vl* which cannot be considered to be derived because a) there is no corresponding noun (or word of any other category) and b) there is nothing obviously 'derived' about the semantics of the verb.

(739)   *Verbs possibly derived from nouns by the suffixoid* -Vl

| noun SG. | noun PL. | gloss | verb UNMARKED[149] | verb PAST[150] | gloss |
|---|---|---|---|---|---|
| buno | bunombʌ | 'thief' | buno | bunne | 'steal' |
| dɔmɛ | --- | 'sound' | dɔ̃mɔ̃ | dɔ̃mǝnɛ | 'hear' |
| sɔbɔ | sɔpa | 'hunter' | sɔbɔ | sɔbǝlɛ | 'hunt' |
| tɔfa | tɔfafɪ | 'hearth' | tɔfɔ | tɔfǝlɛ | 'cook' |

The puzzling thing about these derivations, if such they are, is that the source nouns are morphologically strange. The words *dɔmɛ* and *tɔfa* do not belong to any normal noun class (as evidenced by the fact that they have no regular plural form apart from the default -*fɪ* and no recognizable singular class suffix), and the word *buno* has an irregular plural; the regular form would be *\*bunǝbʌ*. The plural of *sɔbɔ* is phonologically regular insofar as the two adjacent *b*'s of *sɔb+ba* can be expected to coalesce to *p*; but this is the only noun in the *ɔ/ba* 'human' class which has a stem-final *b*.[151]

## 2.2.2.1.2 Verbal adjectives from nouns

Verbal adjectives, if derived at all, are not clearly derived from nouns or from verbs; they are dealt with in §2.2.2.2.

## 2.2.2.2 Verbs from verbs

A major part of the verb → verb derivations (with the suffixes *-g*, *-s*, *-t* and *-Vm*, where *V* is a harmonized vowel) was described in §2.1.3.1.3.1.1 above. The following sub-sections describe only the cases not treated there.

### 2.2.2.2.1 The reversive morpheme -Vt

The suffix *-Vt* (where V is a harmonized vowel) appears on a number of verbs and has the effect of reversing the activity denoted by the verb. Examples are given in (740).

(740) *Reversive verbs derived by the suffix -Vt. (Here the phonetic quality of the harmonized vowel is filled in.)*

| reversive verb | gloss | base verb | gloss |
|---|---|---|---|
| dɪŋgɛt- | 'flee' | dɪŋg- | 'have an erection' |
| dɔ̃nɔt- | 'take apart, untie' | dɔ̃ĩ- | 'join, tie' |
| fiɡet- | 'dig up' | fiɡ- | 'bury' |
| hʊbɔt- | 'find' | hʊbɔl-[152] | 'hide' |
| kɛlɛt- | 'open' | kɛl- | 'close' |
| sumbot- | 'take lid off' | sumb- | 'put lid on' |
| tombot- | 'take off (robe)' | tom- | 'put on (robe)' |

The base verb stems *dɔ̃ĩ-* and *tom-* have a slightly modified stem, *dɔ̃n-* and *tomb-* respectively, to which the suffix *-Vt* is added, even though the putative forms *\*dɔ̃jɔt-* and *\*tomot-* would be phonologically acceptable. This suggests that the reversive formations are quite old.

While this type of derivation is no longer productive, it occurs with a fairly large number of verbs in my corpus, and is quite obvious to speakers. However, there also exist a number of verbs such as *wilet-* 'turn round, return' which have the phonological shape of reversive verbs, but no corresponding 'base verb'. Worse, there exist a few pairs of verbs with a reversive and non-reversive suffix like *pilet-* (*/pil+Vt/*) 'unroll' and *pilag-* (*/pil+g/*) 'unroll' which have the same meaning.

### 2.2.2.2.2 Verbal adjectives

There exist a number of verbal adjectives which seem to be derived from a stem (be it nominal or verbal) by two suffixes which may be identical with the PROGRESSIVE suffixes of verbs, namely *-da(a)* and *-fa(a)*, and by a suffix-like element *-maa*. I do not claim that these are verb → verb derivations, or even that they are derivations (in the sense that they are transparent to the speaker), but simply present the facts as clearly as I can see them and leave others to draw their typological conclusions (cf. also the discussion of some of these words in §2.2.1.2.0.3.4 above).

(741)  *Verbal adjectives with a possible -da(a) suffix*

| verbal adj. | gloss | related word (if any) | category | gloss |
|---|---|---|---|---|
| dɔnda | 'be good' | dɔnəmɛ̃ɛ̃[153] | derived N | 'goodness' |
| fɔnnaa | 'be afraid' | fɔnnɔ[154] | N | 'afraid' |
| halla[155] | 'be slippery, slimy' | hal+s- | regular V | 'slip, slide' |
| hāna | 'be good' | hānāŋ, PL. hānĭa | nom. Adj. | 'good' |
| homnʌʌ[156] | 'be hot' | hom+s- | regular V | 'heat' |
| kanna | 'be bitter' | --- | --- | --- |
| kāŋəna | 'be hard' | kāŋ+s- | regular V | 'harden' |
| kɪtaa[157] | 'be forbidden' | ---[158] | --- | --- |
| toŋəna | 'be deep' | toŋɔɪ | derived N | 'depth' |

(742)  *Verbal adjectives with a possible -fa(a) suffix*

| verbal adj. | gloss | related word (if any) | category | gloss |
|---|---|---|---|---|
| senəfʌʌ | 'be young' | seno, PL. senəbʌ | nom. Adj. | 'young' |
| sɪgfaa | 'be quiet' | sɪg+t- | regular V | 'calm' |
| wʊrfaa | 'be small' | --- | --- | --- |

(743)  *Verbal adjective with a possible -ma(a) suffix*

| verbal adj. | gloss | related word (if any) | category | gloss |
|---|---|---|---|---|
| bĭnəmʌʌ | 'be black' | bĭnĭŋ, PL. bĭnĭʌ̃ | nom. Adj. | 'black' |
| pʌ̃rəmʌʌ | 'be wide' | pʌ̃r+s- | regular V | 'widen' |
| pɔ̃nəmaa | 'be white' | pɔ̃nɔ̃ŋ, PL. pɔ̃nĭã | nom. Adj. | 'white' |

### 2.2.2.3 Verbs from adjectives

The derivation of verbs from nominal adjectives is described in §2.2.2.1 above and from verbal adjectives in §2.2.2.2.

### 2.2.2.4 Verbs from adverbs

I know of no case where a verb is derived from an adverb; recall that the class of adverbs is quite small in Koromfe.

### 2.2.2.5 Verbs from other categories

No verbs are derived from words or morphemes of any other category.

## 2.2.3 Derived adjectives

### 2.2.3.1 Adjectives from nouns

Adjectives are either nominal or verbal, and in both cases cannot be derived from nouns by any direct morphological process.

### 2.2.3.2 Adjectives from verbs

There are no derivations of adjectives from verbs; the UNMARKED form of a verb or the one and only form of a verbal adjective can always be used participially as an attributive adjective (the former with both an active and a passive meaning).

### 2.2.3.3 Adjectives from adjectives

Reduplication of a (nominal) adjective (whether used attributively or predicatively) normally indicates an intensification of the quality expressed by the adjective, e.g. *dʊrʊ dʊrʊ* 'every single one' from *dʊrʊ* 'all'. The reduplication is not phonologically modified in any way. In the case of *dʊrʊ*, this intensification can also be achieved by replacing the second adjective by either *fãã* (the Mòoré word for 'all') or *takɩ*, an intensifier which within my corpus occurs only in this context.

    The reduplication of a colour adjective, on the other hand, produces the opposite of intensification, and adds a nuance very similar to English *-ish*, i.e. a diminution of the quality concerned to something like 'not-quite-X'. Thus *sɔmdɛ* means 'red' and *sɔmdɛ sɔmdɛ* 'reddish', *pɔ̃nɔ̃ŋ* 'white' and *pɔ̃nɔ̃ŋ pɔ̃nɔ̃ŋ* 'off-white, dirty white', *bĩnĩŋ* 'white' and *bĩnĩŋ bĩnĩŋ* 'off-white, dirty white',

*2.2.3.4 Adjectives from adverbs*

Nothing is derived from an adverb in Koromfe.

*2.2.3.5 Adjectives from other categories*

Adjectives cannot be derived from words or morphemes of any other category.

## 2.2.4 Derived adverbs

It is possible to use a noun or nominal adjective adverbially, but no morphological change takes place.

*2.2.4.1 Adverbs from nouns*

No adverbs are derived from nouns by any overt morphological process, although nouns and noun phrases can often be used as adverbs (especially of time and place) without any additional morphological material. Thus, for example the singular form of the noun *selle*, PL. *selʌ* 'open space' can be used as an adverb meaning 'outdoors'. This word is discussed and exemplified in §2.2.4.5.1 below.

In addition, the nominal adjective *jɔ̃ɔ̃ŋa* 'small' can be used reduplicated as the adverb *jɔ̃ɔ̃ŋa jɔ̃ɔ̃ŋa* 'slowly, gently, bit by bit'.

*2.2.4.2 Adverbs from verbs*

No adverbs are derived from verbs.

*2.2.4.3 Adverbs from adjectives*

No adverbs are derived from adjectives, but cf. 2.2.4.1.

*2.2.4.4 Adverbs from adverbs*

Adverbs can be reduplicated for intensification, e.g. *tau tau* 'very quickly' from *tau* 'quickly', *sɔɪ sɔɪ* 'nothing but' from *sɔɪ* 'only' . The adverb *sã* 'tomorrow', when reduplicated means 'someday', i.e. the time-span is increased. The reduplication is (with a single exception)[159] not phonologically modified in any way.

The use of reduplication for diminution which occurs in (colour) adjectives (cf. §2.2.3.3 above) is rare in adverbs. However, one adverb, *sɛ̃nɛ* 'on/to the ground' has a diminished meaning when reduplicated: *sɛ̃nɛ sɛ̃nɛ* means 'down' (i.e. not necessarily as far as the ground), and also 'lower,

bottom X' in compounds such as 'lower lip' (cf. §2.3.1.4 on adverb+noun compound nouns).

### 2.2.4.5 Adverbs from other categories

### 2.2.4.5.1 Adverbs with suffix-like final -dɛ or -nɛ[160]

There exist four adverbs with a suffix-like final syllable which could be lexically /dɛ/ (for *gɔɔnɛ* perhaps /nɛ/) and which seem to be related to words of different categories. Two of these adverbs, *tubre* 'to/in the bush' and *selle* 'outdoors', are semantically very similar. Both seem to have a *-dɛ* suffix, but for the former no base form like *tub-* exists (though there is a noun *tuu* 'bush'). Although *tubre* looks very much like a noun of the *dɛ/a* class, it is an adverb and cannot be used as a noun (though it does occur as the adverb of ADV+N complex NPs — cf. §2.3.1.4 below), nor does it have a plural form. It is also never used with the article *a*. An example is given in (744) which shows both the directional and the stative reading of *tubre*. In both these two occurrences of *tubre* there is no trace of an article *a*.

(744)  dəkɔ                          kommʌʌ   də                    zu
        DISJ. PRON. 3SG. HUM.   cry + PROG.   PRON. 3SG. HUM.   enter

        tubre                      ka                      də                      bɛ
        into the bush (ADV.)   that not (NEG. CONJ.)   PRON. 3SG. HUM.   come (=FUT.)

        wũn            dããnɛ            də                      mɔ̃   ja   sɪbə
        go (home)   home (ADV.)   PRON. 3SG. HUM.   also   go   die

        tubre
        in the bush (ADV.)

        'She cried (and said that) she (had) come into the bush (and that) she wouldn't go home; she too (would) go (and) die in the bush.'

The word *selle*, on the other hand, behaves exactly like *tubre* when used adverbially, but can also be used as a noun (with the regular plural *selʌ*), meaning 'open space'. It does not occur as the adverb of ADV+N complex NPs.

(745)  gʊ                              dɛ̃n   ke                          g(ʊ)
        PRON. 3SG. NON-HUM.   pull   that / because (CONJ.)   PRON. 3SG. NON-HUM.

        zɔmmɔ̃              gʊ                              keki   selle
        want + DUR.   PRON. 3SG. NON-HUM.   lift   outdoors (ADV.)

        'He pulled to try to lift (him) out (of the water).'

The adverb, *dããnɛ* '(to)/at home', is also a local adverb semantically comparable to *tubre* and *selle*. It resembles the postpositional phrase *(a) dãŋ ne* 'to/in (a) house', but is more general in meaning (potentially referring to a village, region, country or even continent). The adverb *dããnɛ* never has an article *a* and can be the adverb of an ADV+N complex NP (§2.3.1.4). It is typically and frequently used with the verb *wun* 'go (home)', as shown in (746).

(746)　a　　　kɛ̃ɔ̃　　　　tããndɔ　　　hoŋ　　　　wileti
　　　　ART.　　woman + SG.　third + HUM.　DET. HUM. SG.　turn round

　　　　də　　　　　　wũn　　　dããnɛ
　　　　PRON. 3SG. HUM.　go (home)　home (ADV.)

　　　　'The third wife turned round and went home.'

The adverb *gɔɔnɛ/gɔɪnɛ*[161] 'again, still' is not very similar to the other three adverbs treated here. It must somehow be related to the verb *gɔ-* 'do again', though not by any regular formation. The suffix-like element *nɛ* cannot be regularly derived from *dɛ* because there is no source for the nasalization, and the stem of this adverb has an unexpected lengthened vowel. An example of *gɔɔnɛ* is given in (747) (taken from slightly earlier in the same text as (745) above).

(747)　daa　　　　　　　　　boŋ　selle　　　　　　gɔɔnɛ
　　　　NEG. PRON. 3SG. HUM.　like　outdoors (ADV.)　again (ADV.)

　　　　'He doesn't want (to go) outdoors[162] again.'

### 2.2.4.5.2 Adverbs of time with a semi-transparent source

There also exist a number of adverbs of time, given in (748), which look as if they have their origin in phrases rather than single words, but which no longer have any close resemblance with their putative sources.

(748)　*Adverbs of time with a semi-transparent source*

| adverb | putative source | | |
|---|---|---|---|
| hĩnne<br>'the day after tomorrow' | (sɔ̃ɔ̃+ja)<br>day + PL. | hĩ́ĩ<br>two | nɛ<br>in (POSTPOS.) |
| somhĩ́ĩ<br>'the day before yesterday' | (sɔ̃ɔ̃+ja)<br>day + PL. | hĩ́ĩ<br>two | |

| adverb | putative source | |
|---|---|---|
| zīnəmʌ̃ 'next year' | zen+de mã year + SG. ?? | |
| zɔɪnɛ 'last night' | zɔɪ afternoon, evening | nɛ in (POSTPOS.) |

The adverb *hĩnne*, if it is derived from the 'putative source' given in (748), seems to have undergone the phonological process of compensatory lengthening, where the sequence *ĩn* has become *ĩnn*. Such a process is otherwise unknown in Koromfe. The postposition *nɛ*, both here and in *zɔɪnɛ* is puzzling, since normally it cannot be used with postpositional phrases of time. Perhaps this is the same *nɛ* which we had in §2.2.4.5.1 above. The third puzzle about this word is that it does not include a noun meaning 'days'.

The adverb *somhĩĩ* is more transparent, but the realization *som* for *sɔ̃ɔ̃ja* (SG. *sɔ̃ɔ̃nɛ*, 'day') occurs nowhere else in my corpus; no other potential analysis seems to be available.[163] However, such morphemes with only a vague resemblance to an independent simple noun are not uncommon in Koromfe compounding.

In *zīnəmʌ̃* the first half, *zin* fits the stem *zen* of *zende*, PL. *zenʌ* 'year' quite well, but there is no word or morpheme like *mʌ̃* or *mã* in my corpus that could arguably be the source of the second part of *zīnəmʌ̃*.

Finally, *zɔɪnɛ* is enigmatic because it refers to the night, and not to the evening or afternoon as the source word *zɔɪ*. There exists a normal word for 'night', namely *jẽnɛ*, PL. *jẽnəma*, which is not used here. Also, as with *hĩnne*, the postposition *nɛ* seems to be used here; but it is not normally used to form an adverb of time (cf. §1.2.1.3.1.3 above).

## 2.2.5 Other possibilities within the major categories

There are no other regular or semi-regular derivational morphological processes within the major categories on noun, verb, adjective and adverb.

## 2.2.6 Derived pre-/postpositions

### 2.2.6.1 The formation of complex postpositions

The formation of complex postpositions is described in §2.1.5.1 above. There are no complex prepositions.

### 2.2.6.1.1 Two postpositions

A complex postposition comprising two postpositions can only occur if the first is a noun used postpositionally (such as *bɛllɛ* 'back / behind', *dɔba* 'top / on top of) and the second is the true postposition *nɛ*. See §2.1.5.1 for fuller details and examples.

### 2.2.6.1.2 Nominal formations

The only type of nominal formations are the postpositionally used nouns mentioned in §2.2.6.1.1 immediately above.

### 2.2.6.1.3 Verbal formations

There are no verbal formations of complex postpositions.

### 2.2.6.1.4 Adjectival formations

Normally, nominal adjectives behave like true nouns. However, in the case of complex postpositions I know of no nominal adjective that is ever used. Verbal adjectives, like verbs, do not occur in complex postpositions.

### 2.2.6.1.5 Other types

There are no other types.

### 2.2.6.2 Simple derived pre-/postpositions

The simple pre-/postpositions proper are extremely short (phonologically CV), which in itself almost precludes their being derived. I can find no evidence that any simple pre-/postpositions are derived.

As for the postpositionally used nouns, it would not surprise me to find a derived noun used in this way, but so far I have not come across one. Therefore §2.2.6.2.1–4 are inapplicable.

## 2.3 Compound morphology

### 2.3.1 Compound nouns

Before considering the different categorial types of compound nouns, it is important first to examine the morphological and syntactic properties of the two structures which are available in Koromfe. The examples given here are uniformly compounds with a genitival meaning involving two nouns, but the structural properties described here are valid for all types of compound NP.

First, let us consider the simpler case of the N+N compound noun. This structure occupies the position in the NP which is otherwise occupied by a single N (cf. §1.2.5.5 on the structure of the NP in Koromfe). The resulting syntactic/morphological structure is given in (749). No daughter noun of the N+N compound can branch further.

(749)   *The (maximal) structure of an NP containing an N+N compound. (The notation N⁻ stands for a bare noun stem without a class suffix.)*

NP

(art./poss.adj)   N   (descr.Adj.)   (num.)   (partic.adj.)   (demonst.)   (quant.)

N⁻   N
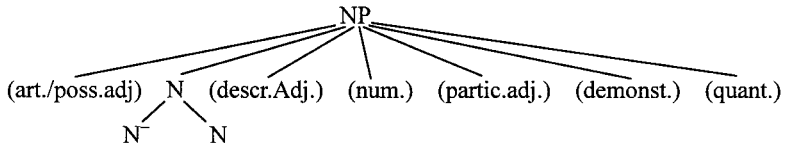
The more complex case is that of a noun phrase comprising (superficially) a noun-phrase followed by a noun (the NP+N structure). My analysis of this complex type of NP is given in (750).

(750)   *The maximal structure of an NP comprising an NP+N compound*

NP

NP   N⁻   (descr.Adj.)   (num.)   (partic.adj.)   (demonst.)   (quant.)
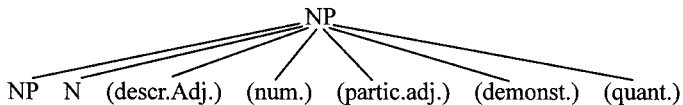
In this structure, the first daughter NP occupies the position of the article or possessive adjective of the higher NP. This structural analysis has several repercussions, all of which are borne out by the descriptive facts:

  a) The N node cannot have any other prenominal modifier (e.g. the article *a* or possessive adjective).
  b) The embedded NP can have a normal prenominal modifier (article, possessive adjective or even a further embedded NP).

c) No matter how many levels the (first) NP branches, it never has more than one article exclusive-or one possessive adjective, and the possessive adjective, if present, refers to the noun of the lowest (i.e. first) NP.

d) The embedded NP can itself have postnominal modifiers in addition to the modifiers of the matrix NP.

e) Any noun (including an N+N compound) can participate freely in this structure.

In the following sub-sections we will see a variety of sub-types of these two structures. In their minimal form, both structures can have the superficial realization 'ART. - N - N' or 'POSS.ADJ. - N - N' (two sequences which abound for both structures). A sure diagnostic to distinguish the two structures is the class suffix of the 'first' noun. If the structure is a branching noun (N+N), then the first noun can never have a class suffix. Mutatis mutandis: if the first of two nouns has a class suffix,[164] then the structure must be that of a complex NP (NP+N). Only the few nouns with no distinguishable class suffix (including some loans), or words of some other class, cannot be distinguished in this way. Also, obviously, if there is more structure associated with the first noun, then the structure must be that of the complex NP.

An example of each structure is given in (751)–(752).

(751)    *The minimal NP structure in which an N+N compound noun can be embedded, exemplified by the NP a lembǝ dãŋ 'a bird's/birds' nest (SG.)'.[165] (N⁻ denotes a noun stem without class suffix.)*



|  |  |  |
|---|---|---|
| *a* | *lembǝ* | *dãŋ* |
| DET. | bird (STEM) | house + SG. |

= 'nest (for one or more birds)'
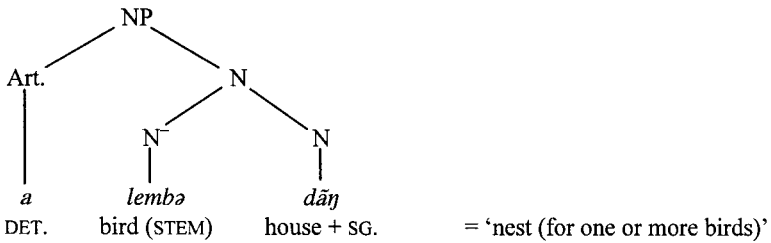
(752)    *The minimal structure for an NP+N complex NP, exemplified by* a lembəgʌ dãŋ
         *'a bird's nest (SG.)'*

```
                        NP
              NP                 N
         Art.      N             |
          |        |
          a     lembəgʌ         dãŋ
         ART.   bird + SG.    house + SG.    = 'a bird's nest'
```
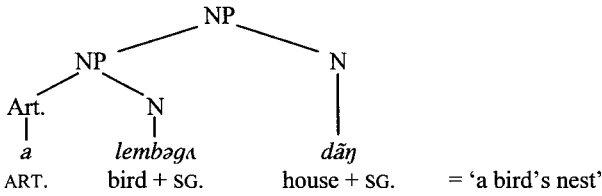
### 2.3.1.1 Nouns from nouns (and nominal adjectives)

### 2.3.1.1.1 N+N compound nouns with a genitival reading

Compound words of this type are nouns which comprise two juxtaposed noun stems, plus the class suffix of the second noun. It is therefore often impossible to determine the number and noun class of the first noun directly from the structure of the compound noun. The noun *a lembə dãŋ* 'a bird's/birds' nest (SG.)',[165] whose structure is given in (751) above, is an example of such a compound. The structure will therefore not be repeated here.

The meaning of the compounds is 'N$_2$ of N$_1$', where N$_2$ is the meaning of the first noun and N$_2$ the meaning of the second noun.

This type of compound is not so clearly analysable for speakers as the NP+N complex NPs, and several words of the N+N type in my corpus have an opaque or almost-opaque first member.

More regular, transparent[166] examples are given in (753) and more opaque examples in (754). The availability of the plural form of these compounds is determined solely by the availability of a plural of N$_2$, and therefore the plurals are not given here. Thus for example *wɔnə bɛte* 'thumb' has the completely regular plural *wɔnə bɛra* 'thumbs', but *bɪn dɔnəmɛ̃ɛ̃* has no normal plural because there is no call for a term 'happinesses'.[167] These nouns are only a very small selection of the many which exist.

(753)    *N+N compound nouns with a genitival reading: more transparent words*[168]

| N$_1$ | N$_2$ | gloss | full N$_1$ | gloss N$_1$ | gloss[169] N$_2$ |
|---|---|---|---|---|---|
| bɪn | dɔnəmɛ̃ɛ̃ | 'happiness' | bɪndɛ, PL. bɪna | 'heart' | 'goodness' |
| bɪn | dɛɪlɛɪ | 'patience' | bɪndɛ, PL. bɪna | 'heart' | 'mastery' |

| $N_1$ | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss[169] $N_2$ |
|---|---|---|---|---|---|
| bĩĩ | jɛɪgʊ | 'discontentment' | bɪndɛ, PL. bɪna | 'heart' | 'wasting' |
| barə | kɛ̃ɔ̃ | 'co-wife (SG.)'[170] | bara, PL. barama | 'husband' | 'woman' |
| wɔ̃nə | bɛtɛ | 'thumb'[171] | wɔ̃ndɛ, PL. wãna | 'hand' | 'male (non-hum.)' |

(754)  *N+N compound nouns with a genitival reading: more opaque words*

| $N_1$ | $N_2$ | gloss | ? full $N_1$ | gloss $N_1$ | gloss $N_2$ |
|---|---|---|---|---|---|
| hɪ | labrɛ | 'water bag' | hem | 'water' | 'bag' |
| da | kutgʌ | 'stump of a tree'[172] | dãĩnɛ, PL. dãjã | 'wood' | 'stump' |
| kɪ | pɛrgʊ | 'robe' | ? 1 kɛ̃ɔ̃ ? 2 kʊlɔ | 'woman'[173] 'body' | 'cloth, mat' |
| nɛ̃ŋ | hamnɛ | 'fire of the mouth'[174] | nɛ̃nɛ, PL. nɛ̃jã | 'mouth' | 'fire' |

The second member of such compounds, on the other hand, never seems to be opaque (i.e. speakers know what it designates), although it may no longer have a meaning as an independent noun (cf. the famous English *cran* morpheme in the word *cranberry*; in Koromfe the position of these two morphemes would be reversed). The word *da kutgʌ* 'stump of a tree' is such a case — cf. also the 'pigeon' words of the appositive type given in (759) below.

The words *bi* 'child, small thing' often occurs as the second noun in compounds of all four types described here. Some typical genitival N+N compounds with these words are given in (755).

(755)  *N+N compound nouns with bi, PL. bu 'child, small thing'*

| $N_1$ | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss[175] $N_2$ |
|---|---|---|---|---|---|
| wɔ̃nə | bi | 'finger' | wɔ̃ndɛ, PL. wãna[176] | 'hand' | 'small thing' |
| wolə | bi | 'toe' | wolle, PL. wala | 'foot' | 'small thing' |
| jɪ | bi | 'member of the chief family' | jɪɪ (SG.) | 'chief family' | 'child' |
| wɔ̃nə | bi[177] | 'chicken' | wɔ̃nɔ̃ŋ | 'chicken, fowl' | 'child' |

346

| $N_1$ | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss[175] $N_2$ |
|-------|-------|-------|------------|-------------|------------------|
| ·sa | bi | 'blood relative' | sa, PL. sammā[178] | 'father' | 'child' |
| va | bi | 'puppy' | vaga, PL. vaɪ | 'dog' | 'child' |

There exist no N+N compound nouns in my corpus with the word *saa* 'owner', even though NP+N structures with *saa* as their second noun abound. However, there does exist at least one genitival N+N compound with the word *sa* meaning 'father' as its second noun, namely *barə sa* '(woman's) father-in-law', where the first noun stem comes form *bara*, PL. *barama* 'husband'. For other compounds from kinship terminology, see §5.1.1 below.

*2.3.1.1.2 N+N compound nouns with an appositive reading*

In addition to the genitival reading with which we have been concerned so far, the N+N compound nouns can also have an appositive reading. Structurally, nothing distinguishes them from compound nouns with a genitival reading (cf. (751) above). The meaning of these compounds is 'X which is (also) Y', where X and Y refer to the same individuals or entities. Often Y is a nominal adjective. A typical example is (756); the full form of the first noun is *bɔ̃nɔ̃ŋ*, PL. *bɔ̃nɛ*.

(756)   a       bɔ̃nə        ȷ̃ãõ
        ART.   goat (STEM)   female + SG.

        'a female goat'

There exist a quite large number of compounds like that in (756) which comprise an animal name as the first noun (stem) and the words 'male', 'female' or 'child'. A few of these are given in (757). The N+N structure seems to be the normal formation for this type of compound, although there also exist more transparent formations with a full first noun (i.e. the NP+N compound NP structure), such as *a nagfɛ bɛtɛ* 'a bull' — cf. §2.3.1.1.4 below.

(757)   *N+N compound nouns with an appositive reading*

| $N_1$ (stem) | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss $N_2$ |
|--------------|-------|-------|------------|-------------|-------------|
| pesə | bɛtɛ | 'ram' | pesu, PL. pesii | 'sheep' | 'male'[179] |
| pesə | bi[180] | 'lamb' | pesu, PL. pesii | 'sheep' | 'child' |
| pesə | ȷ̃ãʊ | 'ewe' | pesu, PL. pesii | 'sheep' | 'female' |

| $N_1$ (stem) | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss $N_2$ |
|---|---|---|---|---|---|
| wɔ̃nə | bɛtɛ | 'cock' | wɔ̃nɔ̃ŋ, PL. wɔ̃nɛ | 'chicken, fowl'[181] | 'male' |
| wɔ̃nə | bi | 'chicken' | wɔ̃nɔ̃ŋ, PL. wɔ̃nɛ | 'chicken, fowl' | 'child' |
| wɔ̃nə | ĵãʊ | 'hen' | wɔ̃nɔ̃ŋ, PL. wɔ̃nɛ | 'chicken, fowl' | 'female' |

As with the genitival N+N compounds, there exist a number of appositive N+N compounds whose first member is no longer structurally transparent, such as the word 'ostrich' given in (758). My informants were unable to provide any information which would help to decide whether this compound arose because the name of the 'ostrich' is accidentally homophonous with the word 'mouth', or whether there is some special characteristic of an ostrich which has to do with its mouth (in which case we might expect a genitival compound with the reverse order of constituents).

(758)   a     dɔ            nɛ̃nɛ
         ART.  animal (STEM)  mouth + SG.

         'an ostrich'

The source noun of this word together with two words whose second noun does not exist independently are given in (759). Interestingly, the two types of pigeon denoted by the examples in (759) are also distinguished by the choice of the first member of the compound, *lembəgʌ* being generally smaller and less edible than *wɔ̃nɔ̃ŋ*.

(759)   *N+N compound nouns whose second member does not exist as an independent word*

| $N_1$ stem | $N_2$ | gloss | full $N_1$ | gloss $N_1$ | gloss $N_2$ |
|---|---|---|---|---|---|
| dɔ | nɛ̃nɛ | 'emu' | dɔʊ, PL. dɔɔfɪ | 'animal' | 'mouth' |
| lemb | kulle | 'kind of pigeon' | lembəgʌ, PL. lembii | 'bird' | ? 'pigeon' |
| wɔ̃nə | kɛŋdɛ | 'kind of pigeon' | wɔ̃nɔ̃ŋ, PL. wɔ̃nɛ | 'fowl' | ? 'pigeon' |

### 2.3.1.1.3 Syntactic NP+N structures with a genitival reading

Since the first member of a syntactic NP+N structure is a full NP (cf. structure (750) and example (752) above), it can (indeed must) inflect for number and noun class. This contrasts sharply with the N+N structure, whose first member can never show its number or noun class overtly. The number of the first noun is semantically, not grammatically determined (as indeed number is everywhere in Koromfe), both for the genitival con-

structions described here and the appositive constructions in §2.3.1.1.4 below.

This gives a possible 3-way number contrast, shown in (760)–(762), for the first noun of a complex NP, namely, singular, plural or unspecified — the last only in an N+N compound.

(760)   *An NP+N complex NP with a singular first noun*



| a | lembǝgʌ | dãŋ | |
|---|---------|-----|---|
| ART. | bird + SG. | house + SG. | = 'a bird's nest' |
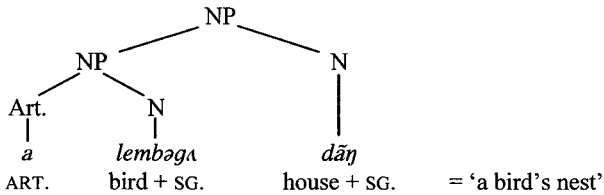
(761)   *An NP+N complex NP with a plural first noun*



| a | lembii | dãŋ | |
|---|--------|-----|---|
| ART. | bird + PL. | house + SG. | = 'some birds' nest' |
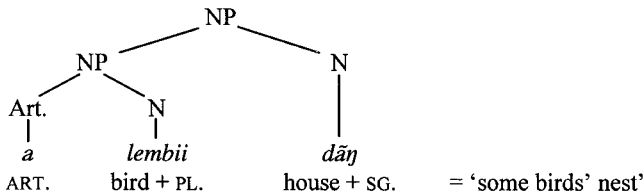
(762)   *An NP containing an N+N compound noun whose first noun is unspecified for number. (N⁻ denotes a noun stem without class suffix.)*



| a | lembǝ | dãŋ | |
|---|-------|-----|---|
| DET. | bird (STEM) | house + SG. | = 'nest (for one or more birds)' |
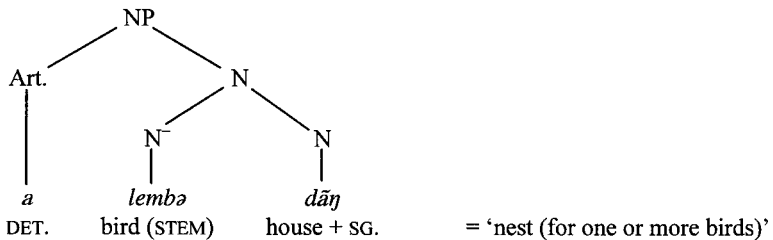
Each of the complex NPs in (760)–(762) can be pluralized by replacing the final singular noun *dãŋ* by the plural form *dãĩ* without affecting the number reading of the first noun. Thus each such complex NP has 4 potential number combinations, all of which actually occur unless, of course, they would be semantically nonsensical. Thus, for example, the word *fɔru sa*, PL. *fɔru sammã* 'pregnant woman'[182] in (763) has no form *\*fɔrfɩ sa* because each woman only has one belly, although *fɔrfɩ sammã* is a possible alternative plural form. The word *sɛ̃ɔ sa* 'sorcerer', on the other hand, has an alternative form *sɛ̃ɔfɩ sa* which implies that the sorcerer has signifi-

cantly more than one drug to his repertoire, plus of course both corre-
sponding plurals of the second noun.

There exist several nouns in Koromfe which typically function as the
last noun of an NP+N compound NP, e.g. *sa*, PL. *sammã* 'owner', *bi*, PL. *bu*
'child, small thing'. Some examples with a simple first NP are given in
(763).

(763)  *NP+N complex NP's with* sa *'owner' and* bi *'child, small thing'*[183]

| $N_1$ | $N_2$ | gloss | gloss $N_1$ | gloss $N_2$ |
|---|---|---|---|---|
| nʊŋgʊ | bi | 'smaller millstone'[184] | 'millstone' | 'child' |
| pergʊ | bi | 'shirt' | 'robe' | 'child' |
| konne | bi | 'key' | 'door' | 'small thing' |
| baŋsʊ | bi | 'spearhead' | 'spear' | 'small thing' |
| bãŋgʊ | bi | 'initiated male' | 'circumcision' | 'child' |
| kasʊ bi | bi | 'prisoner' | 'prison' | 'child' |
| sɛ̃ɔ̃ | sa | 'sorcerer; doctor' | 'drug' | 'owner' |
| fɔrʊ | sa | 'pregnant woman' | 'belly' | 'owner' |
| jomde | sa | 'womanizer' | 'pursuit' | 'owner' |
| kii | sa | 'mad person' | 'madness' | 'owner' |
| bɛnnɛ̃ɛ̃ | sa | 'brave person' | 'bravery, manhood' | 'owner' |
| sɛndɛ | sa | 'medicine man' | 'altar' | 'owner' |
| bɪndɛ | sa | 'angry person' | 'heart'[185] | 'owner' |

As mentioned above, the first NP of an NP+N structure can itself be
complex, whilst the first noun of an N+N compound noun cannot. First, let
us consider the case where the first noun in a genitival NP+N structure
includes an N+N compound noun, as shown in (764) (from one of my
spontaneous Koromfe texts). Here, the first NP is the N+N appositive
compound given in (756) above, and the second member is the simple
noun *jondo*, PL. *jondii* 'rope'.

(764)  *The structure of the NP* a bɔ̃nə jã̃ɔ̃ jondo *'a rope of a female goat'*



| a | bɔ̃nə | jã̃ɔ̃ | jondo |
|---|---|---|---|
| ART. | goat (STEM) | female + SG. | rope + SG. |
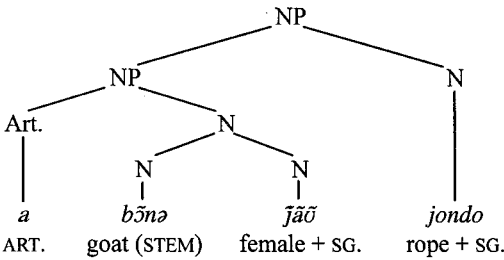
The last noun can also be complex, as shown in (765).

(765)   *The structure of the NP* a sundu wol pogu *'a horseshoe' (lit. 'a horse's foot-shell')*

```
                        NP
            _____
          NP                        N
      _____                   _____
    Art.      N               N         N
     |        |               |         |
     a      sundu            wol       pogu
    ART.   horse + SG.   foot (STEM)  shell + SG.
```
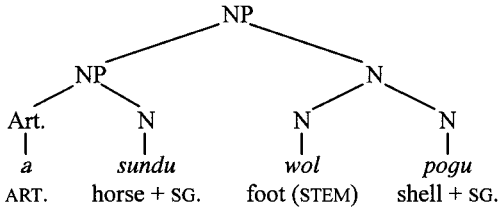
The first NP of an NP+N structure can also itself be an NP+N structure, as in (766).

(766)   *The structure of the NP* a wãna zigam sa *'a person with dirty hands' (lit.: 'a hands-dirt owner')*

```
                            NP
                _____
             NP                          N
        _____                     |
      NP            N                     |
   _____         |                     |
  Art.     N        |                     |
   |       |        |                     |
   a     wãna     zigam                   sa
  ART.  hand + PL.  dirt + SG.       owner + SG.
```
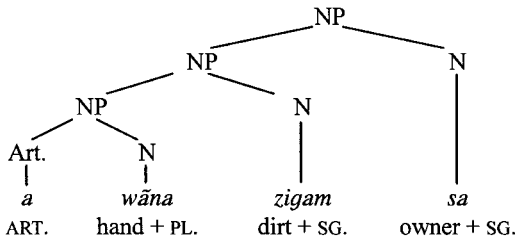
I suspect that the embedding of NP+N structures can continue even further, although I have no examples within my corpus of more complex genitival NP+N structures involving incontrovertible nouns (though see §2.3.1.1.4 below on more complex appositive NP+N structures).

Up to now I have restricted the discussion to the simplest possible NP structures. However, the embedded NP's can display all the structural variety of full simplex NP's. Since the full spectrum of possibilities is so large, only two examples are given in (767)–(768). In (767) the embedded NP has no prenominal article because the postnominal qualifier is a numeral. In (768) both the embedded and the matrix NP have a postnominal qualifier (a determiner and a quantifier respectively).

(767)  *NPs with no article due to a postnominal modifier in the embedded NP:* jɪbrɛ
dom sa *'a person with one eye' (lit.: 'a one-eye owner') and* jɪba hɪ̃ɪ̃ sa *'a per-
son with two eyes' (lit.: 'a two-eyes owner')*[186]

```
                    NP
            NP              N
        N       Num.        |
        |        |          |
      jɪbrɛ     dom         sa
     eye + SG.  one     owner + SG.

      jɪba       hɪ̃ɪ̃        sa
     eye + SG.  two     owner + SG.
```
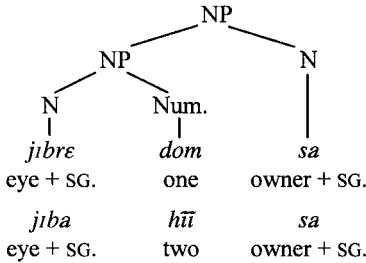
(768)  *An NP with postnominal modifiers in both the matrix and the embedded NP:*
dəkɔ bara hoŋ dono kã̀ã̀ *'any person equal to her husband' (lit.: 'any comrade
of her husband')*[187]

```
                              NP
              NP                      N       Quant.
     poss.Adj.    N     Det.          |         |
        |         |      |            |         |
       dəkɔ      bara    hoŋ         dono       kã̀ã̀
    DISJ. PRON. husband DET. HUM.   comrade    every
    3SG. HUM.   + SG.     SG.       + SG.
```
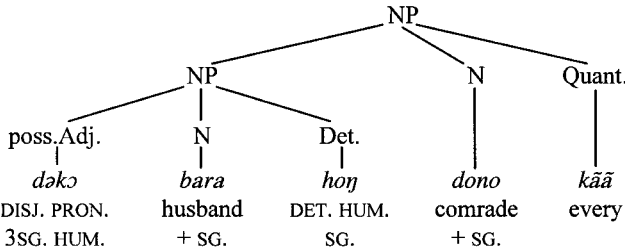
## 2.3.1.1.4 Syntactic NP+N structures with an appositive reading

The range of complex NP structures with an appositive reading is at least
as large as that of complex genitival NPs. In addition, however, the nomi-
nal adjectives must be included as the noun of a complex NP+N, since
they behave structurally just like common nouns (from which they are
often indistinguishable).

Since the spontaneous formation of new NP+N structures is still pos-
sible (in contrast with the N+N compound nouns), the coexistence of a
genitival and an appositive interpretation of one and the same NP+N
structure leads not only to potential, but to quite real ambiguities. More-
over, there is nothing phonological (e.g. the intonation) which could dis-
ambiguate the genitival and appositive readings.

Let us examine these ambiguities by looking at some of the many
complex NPs with an appositive reading whose 'second' noun is *bi*, PL. *bu*
'child, small thing'. Recall that this noun also forms many genitival com-
plex NPs, which means that there are often ambiguities between the read-

ings 'child of X' and 'X that is a child'. Of course, there are usually pre-
ferred readings, and sometimes my informants noticed possible readings
only when confronted with parallel forms; nevertheless, they always ac-
knowledged the ambiguity and confirmed that all forms could be used in
spontaneous speech, given the appropriate context.

A set of examples from kinship terminology involving the word *bi* is
given in (769)–(771). Here the possessive adjective is included for the
sake of naturalness; it is not obligatory. The NP (770) can be either ap-
positive or genitival, but (771) is 4-ways ambiguous: reading 1 is all-
appositive, reading 2 is appositive then genitival, reading 3 is all genitival,
and reading 4 is genitival then appositive. The relevant tree structure is
given in (772), and is identical for all four readings; it is only the inter-
pretation of the NPs that differs.

(769)   mə        jĩmde
           PRON. 1SG.   younger sibling + SG.

           'my younger sibling'

(770)   mə        jĩmde           bɔrɔ[188]
           PRON. 1SG.   younger sibling + SG.   male human + SG.

           1. 'my younger brother'
           2. 'my younger sibling's (male) friend'

(771)   mə        jĩmde           bɔrɔ           bi
           PRON. 1SG.   younger sibling + SG.   male human + SG.   child + SG.

           1. 'my younger brother (who is still a) child' **or**
           2. 'the child of my younger brother' **or**
           3. 'the child of my younger sibling's friend' *(NB: The sibling may be female.)*
           4. 'the son of my younger sibling' *(NB: The sibling may be female.)*

(772)   *The structure of the NP in (771)* mə jĩmde bɔrɔ bi. *(NP₂ and NP₃ can be ap-
positive or genitival, thus giving 4 possible readings.)*



| poss.Adj. | N | N | N |
|-----------|-------|-----------|---------|
| *mə* | *jĩmde* | *bɔrɔ* | *bi* |
| PRON. 1SG. | younger sibling + SG. | male human + SG. | child + SG. |
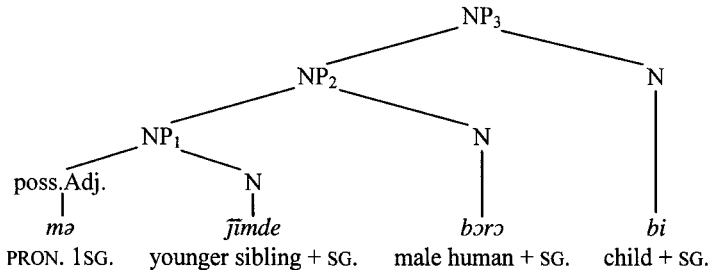
### 2.3.1.1.5 Nouns derived from compound nouns

There exist a few abstract nouns such as *jommɔdombre* 'companionship, friendship' and *sabire* 'consanguinity' which seem to be derived from the compounds *jommɔdono*, PL. *jommɔdombʌ* 'companion, friend' and *sa bi* 'blood relative' (lit.: 'ancestors' child'). There exist no words *\*dombre* or *\*bire* in isolation; on the contrary, the abstract noun from *bi* 'child' is *bilei* 'childhood'.

However, on the basis of the few forms that exist I would hesitate to suggest that Koromfe can regularly derive abstract nouns from compound nouns, even though the same suffix -*dɛ* seems to be used with both. (Cf. the discussion of these forms in §2.2.1.1.1.1 above.)

### 2.3.1.2 Nouns from verbs (and verbal adjectives)

The first member of a complex noun can be a verb: a bare (UNMARKED) verb stem or what looks like the DURATIVE stem. This gives the structure [V+N]$_N$. There exists no parallel to the NP+N complex NP structure discussed above, since a verb stem cannot occupy the prenominal modifier position of an NP. Also, there are no compounds in which a verbal adjective is used in place of a full verb. In addition, I claim that there are no compound nouns with the reverse constituent structure N+V, though see §2.2.1.1.1, §2.3.1.1.5 and §2.3.2.1 for some problematic borderline cases.

### 2.3.1.2.1 V+N compound nouns formed with a bare verb stem

Compounds formed with the bare verb stem are extremely rare compared with N+N compounds, and arguably do not exist (but are actually N+N compounds). There exist only a handful of cases in my corpus where a bare verb stem is clearly identifiable and my informants said that the first part of the compound was a verb. However, for each verb there is a corresponding deverbal action noun from which the first element of the compound noun could be derived — in which case these are plain N+N compound nouns. As with N+N compound nouns, the first member of these compounds only has its bare stem with no trace of a suffix. The second member (a noun) has its normal noun class suffix and inflects for number just like the corresponding independent noun. Examples are given in (773)–(775). The deverbal action nouns corresponding to the verbs *hor-* 'cook', *nɛ̃-* 'urinate' and *dɪ-* 'eat' are *horʌm*, *nɛ̃ɛm* or *nɛ̃ʊ̃* and *dɪʊ* respectively. I do not know why the first vowel of the verb *nɛ̃* is nasal but that of

*nɪ* in *nɪ hem* is not. The lowering of a nasal vowel from high to mid is phonologically quite normal.

(773)  a    horə              bɛtɛ
       ART.  cook (VERB STEM)  male non-human + SG.[189]

       'a stick for stirring porridge'

(774)  a    nɪ                   hem
       ART.  urinate (? VERB STEM)  water (SG.)

       'urine'

(775)  a    dɪ                 nɔ̃ŋa
       ART.  eat (? VERB STEM)  fat, oil (SG.)

       'kind of butter' *(lit.: 'fat for eating')*


### 2.3.1.2.2 V+ N compound nouns formed with a durative verb stem

There exist a handful of compound nouns of this type, but all could be analysed as N+N compounds where the first member is a deverbal agent noun (which is formed from the DURATIVE stem of the verb — see §2.2.1.2.0.1 above) and the noun class suffix is truncated. Some examples are given in (776)–(778). The corresponding agent nouns are *hɛ̃tɔ* 'person who sews', *jommo* 'person who follows' and *wollo* 'person who fights'. All three have regular plurals of the *ɔ/ba* 'human' noun class.

(776)  a    hɛ̃tə           samdɛ
       ART.  sew + DUR.    pointed object[190] + SG.

       'a needle'

(777)  a    jommə          dono
       ART.  follow + DUR.  comrade + SG.

       'a comrade'

(778)  a    wollə          bɔrɔ
       ART.  fight + DUR.   man / friend + SG.

       'a friend'

Incidentally, agent nouns occur freely as the second element of complex NPs, though of course always with their noun class suffix *-ɔ*, PL. *-ba*, e.g. *a nɛ̃n(ɛ) latɔ* 'troublemaker', lit. 'mouth searcher', where *latɔ* is the agent noun from the verb *lar-* 'look for'.

## 2.3.1.2.3 A single V+V compound noun

There exists only one noun in my corpus which can be analysed as result-
ing from the compounding of two verb stems, namely *hʊləŋkɔndʊ*
'tradition' (lit: '(that which was) found at birth'). This word clearly con-
tains the verb stems *hʊl* 'be born' and *kɔnd(ʊ)* 'find'.[191] The intervening
phonetic [əŋ] could perhaps be interpreted as a 2nd person singular pro-
clitic pronoun. On the other hand, Koromfe has a few other 'unexpected'
velar nasals at compound-like boundaries (e.g. in *foŋkãã* 'anyone/
everyone' from *fo* 'person' and *kãã / kamã* 'any, every', which is described
in §2.1.6.6.1 above, or *saŋkoŋ* 'now' from *sa* 'now' plus the non-human
singular determiner *koŋ*). But since *hɔləŋkɔndʊ* is the only V+V compound
noun (or V+V compound of any kind), further speculation would be futile.

## 2.3.1.3 Nouns from adjectives

As mentioned above, nouns from nominal adjectives are identical to nouns
from nouns, and nouns from verbal adjectives do not exist.

## 2.3.1.4 Nouns from adverbs

The first member of a complex NP (akin to the NP+N structures described
at the beginning of §2.3.1 above) can be an adverb. Sentence (779), taken
from a religious ceremony, contains two simple examples (juxtaposed).
The structure of these NPs is given in (780).

(779)  dɛ̃ɛ̃              wɔlɔmam      somhĩĩ                        wɔlɔmam
       yesterday (ADV.) speaking (SG.) day before yesterday (ADV.) speaking (SG.)

       gʊ                        dʊrʊ  sɪrə  ze         gʊ
       PRON. 3SG. NON-HUM.  all   leave there (ADV.) PRON. 3SG. NON-HUM.

       gɔ     sogo         ni
       return border (SG.) at (POSTPOS.)

'(May) the (evil) words of yesterday and the (evil) words of the day before
yesterday, (may) all of that leave and go away.'

(780)  *ADV+N compound NPs:* dɛ̃ɛ̃ wɔlɔmam *'the words of yesterday',* somhɪ̃ɪ̃
wɔlɔmam *'the words of the day before yesterday' and* tubre dɔʋ *'wild animal'*
*(cf. (781) below)*

```
                      NP
              _____/  _____
           Adv.                   N
            |                     |
           dɛ̃ɛ̃                  wɔlɔmam
       yesterday (ADV.)        speaking (SG.)

          somhɪ̃ɪ̃                wɔlɔmam
   day before yesterday (ADV.)  speaking (SG.)

           tubre                  dɔʋ
      in/to the bush (ADV.)    animal + SG.
```
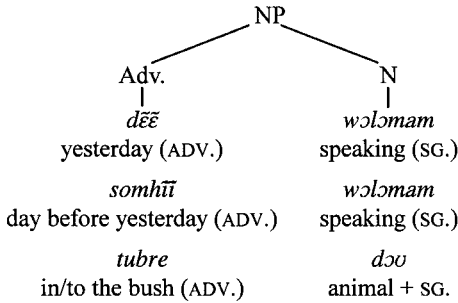
In structure (780) the adverb is the prenominal modifier within the NP,
and therefore no article *a* precedes these compounds.[192]

The word *wɔlɔmam* is in fact a deverbal action noun (with the regular
suffix *-am*) from the verb *wɔlɔm-* 'speak'. The origin of this noun as a
deverbal action noun is probably (at least semantically) responsible for its
being able to take an adverb in the prenominal modifier position (where
normally either the article *a*, a possessive adjective, an NP or nothing at all
are found). It could be argued that the adverbial node in (780) should be
embedded one level lower under an embedded NP; I know of no evidence
that would bear on this issue, and will therefore use the simpler structure.

Two words of the same type, but with a true noun as their second
member are *tubre dɔʋ* 'a wild animal', also given in (780) and its antonym
*dããnɛ dɔʋ* 'domestic animal'. The first member of both compounds is an
adverb: *tubre* 'to/in the bush' and *dããnɛ* '(at) home' — words which can-
not be used as an adjective (cf. §2.2.4.5.1 on this type of adverb). The first
word is particularly interesting because there also exists an NP+N com-
pound *a tuu dɔʋ* 'a wild animal' which requires a prenominal modifier (or
dispensation through some postnominal modifier) in the usual way. A third
complex NP, *a tuu jɔ* 'a chief of the bush' (='a lion') parallels *a tuu dɔʋ* in
its structure; but there is no corresponding form with the adverb *tubre*
such as *(a) tubre jɔ*, with or without the article *a*. The structure of these
NP+N compounds is given in (781).

(781)   *The structure of the compound NPs a* tuu dɔʊ *'wild animal' (lit.: 'bush animal')*
          *and a* tuu jɔ *'chief of the bush' (a pseudonym for 'lion' — cf. (780) above)*

```
                    NP
              _____|_____
            /               \
          NP                  N
         /  \                 |
      Art.    N               |
        |     |               |
        a    tuu            dɔʊ
        a    bush + SG.    animal + SG.

        a    tuu             jɔ
        a    bush + SG.    chief + SG.
```
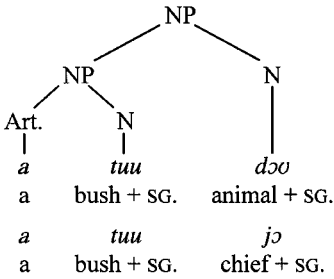
I assume that the absence of *\*tubre jɔ* is semantically rather than morphologically motivated, i.e. the lion is the chief **of** the bush and not a chief (e.g. of a village) who a) normally inhabits the bush or b) just happens to be located in the bush.

There exist two marginal cases of ADV+N compound NPs involving the word *fɛndɛ*, which my informants considered to be a noun without plural meaning 'day, period'. It could, however, just be an adverb (cf. later in this section). The following analysis of compounds with *fɛndɛ* assume that it is indeed a noun. However, the two compound NPs analysed below are used as adverbials.

The first compound is *sã fɛndɛ* 'someday', from *sã* 'tomorrow' and *fɛndɛ* 'day', with the structure given in (780) above. The second compound (taken from one of my oral texts) has as its first element a whole adverb clause, and *fɛndɛ* as its second element. I checked this sentence very carefully with my informants, since it is the only spontaneous example in my corpus (though with 2 identical tokens of the same phrase within a text). It is given in (782) and the structure of the NP in question in (783). The embedded clause in (783) is a temporal used conditional adverbial clause as described in §1.1.2.4.2.1 and §1.1.2.4.2.5 above.

(782)   ŋkɔ                  nãã  də                  fɛndɛ          kam
          DISJ. PRON. 2SG.   see   PRON. 3SG. HUM.   day (SG.)     surely (ADV.)

          ŋkɔ                  bo    ke                  ŋkɔ               bi
          DISJ. PRON. 2SG.   say   that (CONJ.)       DISJ. PRON. 2SG.   child + SG.

          dɔ                  hoŋ              də                  kebei
          NEG. COPULA       DET. 3SG. HUM.   PRON. 3SG. HUM.    size (SG.)

          'The day you see him, surely you will say that that is not your child. His size!'

(783)   The *ADV+N compound NP* ŋkɔ nãã də fɛndɛ *'the day that you see him'*

```
                         NP
              _____/  _____
           Adv.                        N
            |                          |
            S                          |
         __/ \___                      |
       NP        VP                    |
       |        /  \                   |
       |       V    NP                 |
       |       |    |                  |
      ŋkɔ     nãã   də               fɛndɛ
   DISJ. PRON. 2SG.  see  PRON. 3SG. HUM.  day (SG.)
```
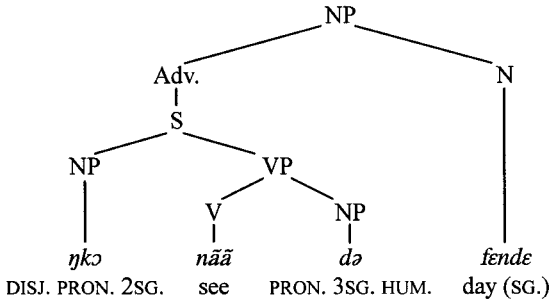
Note that the object pronoun *də* in this sentence is realized with a final schwa — i.e. is not subject to the phonological process of 'phrase-final filling' of epenthetic vowels. This means that the pronoun is within the same phonological phrase as the following word *fɛndɛ* and therefore suggests that they are syntactically quite close.

In sentence (784), elicited in the context of adverbial clauses, the noun of a structure like (783) even has a determiner, which means that it cannot have been an adverb from the outset. Some similar examples with *sɔ̃ɔ̃nɛ* can be found in §1.1.2.4.2.1 above. The structure of (784) is given in (785).

(784)   kɔ̃n            də              dɪr(ɪ)         sɔ̃ɔ̃nɛ
        when (CONJ.)   PRON. 3SG. HUM.   eat + DUR.     time + SG.

        koŋgo                       də              wɔlɔmaa
        LONG DET. NON-HUM. SG.      PRON. 3SG. HUM.   speak + PROG.

        'He spoke while he was eating.'

(785)  *The structure of the sentence* kɔ̃n də dɪr(ɪ) sɔ̃ɔ̃nɛ kↄŋgo də wↄlↄmaa *'He spoke while he was eating.'*

```
                                      S
                 _____/|_____
              Adv.                    |    NP        VP
               |                      |    |         |
              NP                      |    |         V
         ____/|_____          |    |         |
      Adv.            N      Det.      |    |         |
    __/|              |      |         |    |         |
  Conj.   S           |      |         |    |         |
   |    __/\__        |      |         |    |         |
   |   NP    VP       |      |         |    |         |
   |   |     |        |      |         |    |         |
   |   |     V        |      |         |    |         |
   |   |     |        |      |         |    |         |
  kɔ̃n  də  dɪr(ɪ)    sɔ̃ɔ̃nɛ  kↄŋgo      də      wↄlↄmaa
 when PRON. 3SG. eat +  time +  LONG DET.  PRON. 3SG.  speak +
 (CONJ.)  HUM.   DUR.    SG.   NON-HUM. SG.   HUM.      PROG.
```
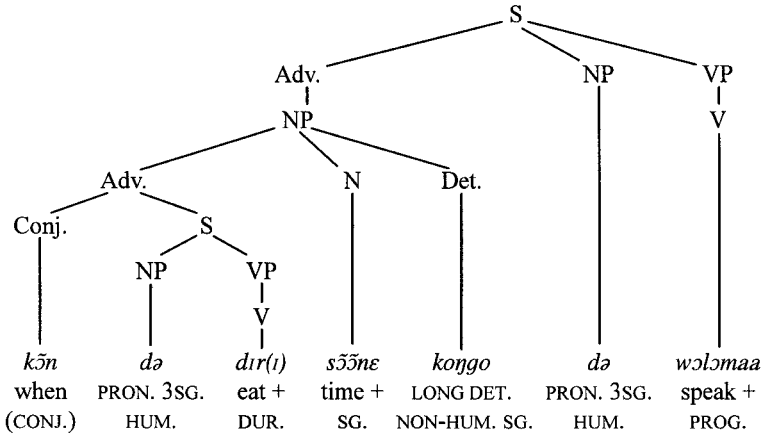
On the basis of this evidence, these ADV+N compound NP structures cannot be analysed as an independent ADV+ADV complex adverb structure.

### 2.3.1.5 Nouns from any other category

Compound nouns cannot be formed with words of any category other than those mentioned above.

## 2.3.2 Compound verbs

Compound verbs to not exist in Koromfe, therefore §2.3.2.2–5 are omitted. However, there exists a type of construction which could superficially be interpreted as a compound verb, which is described in §2.3.2.1 below.

### 2.3.2.1 Verbs from nouns

The sequence 'NP - noun - verb' often looks as if there existed a type of compound verb with the structure N+V. Consider the sentences given in (786)–(788). At a first glance, the initial pronoun looks like a subject pronoun. Moreover, the translation with a single verb (or copula + adjective) suggests that we have a single compound verb here. As a third factor, the Koromba themselves often quote such N+V sequences as single verbs in French. And fourthly, there exist neighbouring (though genetically extremely distant) languages such as Jula (Dioula) and Bambara with object incorporation.

(786)  də            jãm          sɪtaa
       PRON. 3SG. HUM.   blood + SG.   leave + PROG.

       'He is bleeding.'

(787)  də            segre        sɪrɪ
       PRON. 3SG. HUM.   name + SG.    leave

       'He is well-known.'

(788)  mə            bɪndɛ        hʊtaa
       PRON. 1SG.    heart + SG.   be angry + PROG.

       'I am angry.'

Nevertheless, I consider the structure of sentences (786)–(788) to be as given in (789) — i.e. there is no compound verb comprising N+V. Instead, these 'NP - noun - verb' sequences have a genitival NP+N compound NP as the subject of a simple verb. There is no case in which the NP+N interpretation is impossible; in addition, this analysis allows for a determiner to intervene between the noun and verb, e.g. *də jãm koŋ sɪtaa* for sentence (786).

(789)   *The structure of the 'NP - N - V' sequences in (786)–(788)*

```
                         S
              _____/    _____
           NP                        VP
        __/  \__                     |
      NP        N                    V
      |         |                    |
      də        jãm                  sɪtaa
  PRON. 3SG. HUM.   blood + SG.     leave + PROG.

      də        segre               sɪrɪ
  PRON. 3SG. HUM.   name + SG.      leave

      mə        bɪndɛ               hʊtaa
  PRON. 1SG.   heart + SG.      be angry + PROG.
```
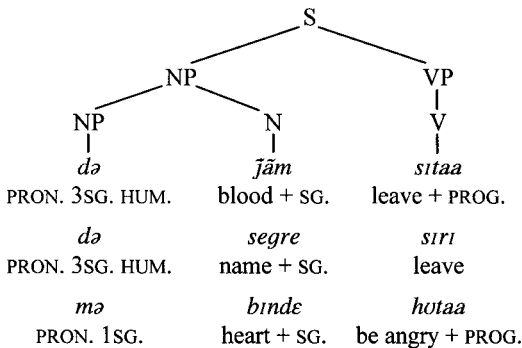
Thus the correct interpretation of these sentences is: (786) 'His blood is leaving (his body).', (787) 'His name has gone out (into the world).' and (788) 'His heart is angry.' Mutatis mutandis, the NP+N compounds involving the deverbal action nouns (or gerunds) of these verbs (e.g. *a jãm sɪram* 'to bleed') are not [NP+V]ₙ derivations from compounds (like one putative analysis of *jommədombre* in §2.2.1.1.1.1 above), but compounds with the structure NP+[V]ₙ, where [V]ₙ is a (derived, not compounded) deverbal action noun.

### 2.3.3 Compound adjectives

The nominal adjectives freely participate in the NP compounds as nouns. The verbal adjectives do not participate in compounds at all. Therefore §2.3.3.1–5 are inapplicable.

### 2.3.4 Compound adverbs

Apart from reduplication (described in §2.2.4.4 above) there exist no compound adverbs and therefore §2.3.4.1–5 are inapplicable. However, recall the discussion and rejection of an ADV+ADV compound adverb structure in §2.3.1.4 above.

### 2.3.5 Other possibilities

I am not aware of any further possibilities.

# Notes to Chapter 2

1    The availability of this paraphrase shows that 'generosity' is expressed in Koromfe by the semantics of 'white stomach' and not by an opaque or fossilized noun *fɔr(ʋ) pɔ̃nəmɛ̃ɛ̃*. Nevertheless, none of my informants could tell me what generosity has to do with the colour of one's stomach.

2    It is typical for measurements of this kind to consist mainly of loan words ('ton' and 'lorry' both come from French).

3    Another logically possible analysis is that the PP superset is an adverbial. However, this would allow for some other NP to be the topic of the sentence; but such sentences do not exist.

4    The noun *wakɩrɩ*, PL. *wakɩa* is the name of a coin worth 5 francs in present-day currency; it is countable; *manɛ* 'money' is not, although it can form a singulative *manəfɛ* 'coin'.

5    I do not know why a genitival NP+N compound NP cannot be used to express extent, parallel to the expressions of quantity in §2.1.1.4.9.

6    In this monograph I have not always used the citation forms for words presented in isolation for reasons of presentation — and to save space.

7    The usage for bodies of water may result from the fact that water is scarce and is often stored in reservoirs which have dams; in other words 'foot' is used here in the same way as English *at the foot of a mountain* where the noun is considered higher than the position denoted.

8    However, I must admit that I was unable to construct a usable scenario to elicit the semantics 'past with superior contact'. A bird's touch-and-go landing on a roof met with no success.

9    Here, as with *hɛrga*, the notion of going 'to (a position) alongside the water' can only be expressed by the use of the general postposition *nɛ* for 'to the water' plus a second clause expressing laterality.

10   Souleymane points out that this sentence could also mean that the wall falls over.

11   The final *la* of the postposition *dɔɩla* is a mystery insofar as one would expect that *dɔɩ* alone could be used (following the pattern of the other noun-derived postpositions). The extra *la* cannot be an emphatic particle because a) it is not in a permissible position, and b) it is obligatory with this postposition.

12   Here the *N* stands for either a) a homorganic nasal stop before an obstruent, or b) zero before a glide (j,w,h), or c) [n], [nə] or even [nɔ̃] before a nasal stop.

13   There is a set of full borrowings, i.e. phonetically adapted version of Fr. *une heure*, *deux heures*, etc., and a single-word borrowing *lɛɛrɩ*, PL. *lɛɛrəma* 'hour, o'clock' from Fr. *l'heure*, which takes a postposed Koromfe cardinal numeral to form times of day (and therefore is interchangeable with indigenous *wakatɩ*, PL. *wakatəma*).

14   The front rounded vowels transcribed here represent a very correct, high-prestige pronunciation using sounds that do not conform to the Koromfe phonological system. A (less prestigious) conforming pronunciation has [w] for [ɥ], [ɛ] for [œ] and [i] for [y].

15   In this context, the *a* might be (a remnant of) the French preposition *à* rather than the article.

[16] The word *tɛ* is also open to interpretation as *tɪ* 'make' merged with the article *a* (whereby expected *ɪa* is realized phonetically as *ɛ* by a quite general phonological process of Koromfe).

[17] There are many different forms of the words which I have written here as Mòoré and Mossi and none are adequate in all respects. This choice of spelling has no motivation other than convenience, and it not intended to support or criticize any school of thought, linguistic or otherwise. In fact, I believe that the transcription [mòːsé] is misleading insofar as both vowels are 'phonemically' lax high vowels and not tense mid ones (cf. Rennison, 1987c; 1992).

[18] These words are probably areal terms used in several languages, because most of them are either identical or very similar in Mòoré.

[19] I suspect that this word has a multiple source. If it is French, it cannot easily be the word *chandelle* or *chandelier*, since the source sound [ʃ] ought to be rendered as [s] in Koromfe (cf. [ʒ] to [z] in [zenɔm] from [ʒœnɔm] *jeune homme*). If it is Fr. *candélabre*, then truncation has occurred.

[20] This word must have entered Koromfe via Mòoré because its plural suffix is one which (otherwise) is found only with Mòoré loans. See §2.1.1.8.7.3 for details.

[21] Unfortunately, my knowledge of Arabic is inadequate to attempt any etymologies.

[22] I have been unable to ascertain the local (Yadre) Mòoré phonetic forms of these words, in particular their tones. However, the phonetic quality of the segments which I have been able to compare is identical in Mòoré. Recall that the majority of Koromfe speakers also speak Mòoré fluently.

[23] This word originally came from English *motor car*. Cf. §2.1.1.8.7.1 above.

[24] There is a restriction on the vowels of class suffixes in Mòoré to the 3 peripheral colours (i,u,a); mid vowels do not occur. (The vowels transcribed as phonetic [e] and [o] are phonologically lax high vowels — cf. Rennison 1987c.)

[25] This statement may be marginally violated, depending on one's phonological analysis, by the [mmã] variant of the *a/ma* sub-type of the *o/ba* class (e.g. *sa*, PL. *sammã* 'father'), and by the [laŋa] (SG.) / [laʊ] sub-type of the 'diminutive' *ga/nɪ* class; cf. §2.1.1.9.1.1.2 and §2.1.1.9.1.4.3 respectively.

[26] The word *kãŋ* 'thing', PL. *hãõma* looks as if the singular may have a nasalized *-gʊ* suffix (like *dãŋ* 'house', PL. *dãĩ*) and perhaps a *-ma* plural suffix. However, the alternation of the initial *k* with *h* is unique in Koromfe, and the additional *õ* of the plural form is also idiosyncratic.

[27] In Mòoré, on the other hand, the human class suffixes are identical with the personal pronouns both in the plural (*ba*) and the singular (*a*). The similarity with the Koromfe class suffixes is striking; recall that a suffix *-ɔ* would be impossible in Mòoré because of the general ban on mid vowels in suffixes.

[28] The words *allɔ* and *arɪɔ* are two of a handful of words in Koromfe (most of them loans from Arabic) that begin with a vowel; the variants with an initial consonant are clearly attempts to rectify this irregularity. I do not know the historical source of these two words, but the *ɪ* in *arɪɔ* which disappears in the plural is highly unusual.

[29] The words *buno* and *sɔbɔ* are the only words in Koromfe where one might claim that the corresponding verbs with the stems (*bunon* and *sɔbɔl* respectively) are derived from the nouns by the addition of an *-l* suffix; alternatively, the nouns might

be participles (UNMARKED verb forms) which have (irregularly) acquired a plural. Either way, the formation is rare and limited to these two words.

[30] Whether the ethnic group 'Berba' is the same as Berber I cannot say, nor could my informants.

[31] The change of ATR class in this word between singular and plural is extremely rare in the native vocabulary of Koromfe. It also occurs in some Mòoré loans as a reflex of the Mòoré A-harmony (cf. Rennison 1987c; 1992).

[32] This is the only word in Koromfe with an unexpected [d] between the noun stem and the class suffix.

[33] Since ATR harmony holds for all noun classes and is always completely regular, the harmonic variants will not be explicitly stated in the rest of the section on the noun classes.

[34] The long vowel in the singular of *saa* is shortened in NP+N compounds (of which there is a very large number). The similarity of this word with *sa* 'father' is probably no accident.

[35] I cannot imagine that the 3rd person singular human pronoun *d(ɪ)* originates in the singular of the *dɛ/ɪ* class because nouns in this class are typically non-human.

[36] See the relevant sub-sections below for the source of these phonetic variants and examples.

[37] There happen not to be any words in my corpus with tense stem vowels and a nasal consonant before this suffix -*ɪ*, but I do not doubt that here, too, the vowel would be lowered to [e], since the phonological process involved is quite regular.

[38] There are similar puzzling 'allomorphs' in other classes, too, e.g. [a]~[ɪa] in the *dɛ/a* class. This plus a few singulars like *dāɪnɛ* 'wood' which have no *ɪ* in compounds (e.g. *da kutre* 'tree stump') leads me to speculate that there may have been a historical *ɪ* (suffix?) between the word stem and the class suffix in some words.

[39] This fusion of /b+g/ to [k] is also the normal case for loans from Mòoré in this singular class (but usually with a different plural); the same phonological fusion process is also the regular case in Mòoré.

[40] The lack of nasality in the plural of this word could mean that it in fact has an [ɪa] plural variant of the *dɛ/a* class; note that the word *felejĩ* has a nasal suffix despite the orality of its stem vowel.

[41] Perhaps this is historically a case of double suffixation — cf. also the long -*ɪɪ* plurals in this class and the -*ɪa* plurals of the *dɛ/a* class in §2.1.1.9.1.3 below.

[42] In other words, the type frequency of the words bearing the suffixes of the *dɛ/a* class is the highest, but the token frequency probably is not because of the lack of productive derivation and of a corresponding pronoun. I therefore consider the *gʊ/ɪ* class to be more typically **the** non-human noun class.

[43] In fact only the second half of the [t] is the realization of the suffixal [d]; the first half comes from the stem final [d], and the sequence *d+d* fuses to phonetic [t].

[44] Unfortunately the semantics of these words makes the formation of a plural impossible. Also, there are no words with a similar stem shape which could be considered to be cognates.

[45] In the verbal morphology, on the other hand, expected geminate *l*'s in this position (i.e. after the vowel of the second phonetic syllable) **always** simplify to a single phonetic [l]. I therefore suspect that the two nouns with a geminate *ll* in this position are (at least historical) compounds. Compare also the geminate *m*'s in the plu-

rals of the [a]/[ama] sub-type of the ɔ/ba class in §2.1.1.9.1.1.2 above, which only occur after a C(V) stem; after a CVC(V) stem, only a single *m* is allowed.

46 The words *hamnɛ* 'fire' and *hɔmnɛ* 'intelligence' have no plural form for semantic rather than morphological or lexical reasons. Here 'fire' signifies 'combustion' rather than a 'place where something is burning', and is therefore not countable.

47 In N+N compounds, such as *nɛtɔm* 'sour taste in the mouth', (composed of *nɛ* 'mouth' and *tɔm* 'ashes') the vowel *ɛ* is clearly not nasal; but compare also *dãĩnɛ* in footnote 38 above, which also has a non-nasal stem in N+N compounds.

48 In Rennison (1993) I show that schwa in Koromfe is the **optional** phonetic realization of an empty nucleus position in syllable structure; i.e. there is no position in which schwa must obligatorily be realized.

49 The only word in my corpus which contradicts this generalization is *gɛdrɛ*, PL. *gɛdaʋ* 'kind of hairdo for women'. This must in my opinion be a loan from Mòoré or some other local language, since in native Koromfe words the sequence *VdrV* is always realized phonetically as *VtV* — see the next section for details. In a similar vein, the Mòoré loan words *kɔ̃brɛ* 'bone' (cf. native *kʋbrɛ*) and *sãbrɛ* 'liver' are phonologically unusual members of the [rɛ] sub-type because in native Koromfe words the *b* (or any other single voiced lax stop) would be impossible after a nasal vowel; either the stop would have to be phonetically nasal (here [m]) or the vowel oral (as in the native Koromfe *kʋbrɛ*).

50 But after a **single** *l* the [lɛ] variant of the suffix must occur. Cf. §2.1.1.9.1.3.2.

51 But **immediately** following a nasal segment the [nɛ], [ndɛ] or [dɛ] variant of the suffix must occur. Cf. §2.1.1.9.1.3.1,3 and 4.

52 But the suffix combines with a single postvocalic *d* to form the [tɛ] 'variant' of the suffix. Cf. §2.1.1.9.1.3.6.

53 These are the only such words in my corpus, but I have not systematically investigated all types of fruit and vegetable; therefore their number may be considerably more (as it is in Mòoré). The regular pattern of singulatives (with the suffix *-fɛ*) and their corresponding collectives is described in §2.1.1.8.5 above, and the regular pattern of diminutives (with the suffix *-ga*) in §2.1.1.9.1.4.

54 If the phonetic [fe] part of the word *kifeŋʌ* is a singulative suffix, then this is one of the very few words in Koromfe with double suffixation of native suffixes. There exists the words *ki*, PL. *kiu* 'calabash' and *kife*, PL. *kifeu* 'small calabash'.

55 This word must historically be a compound; it seems that corresponding the Mòoré word (which also exists as a loan in Koromfe) *kiŋkirgʌ* contains the same two elements in the reverse order (both words beginning with *k* in both languages).

56 There is a single Mòoré loan *lɔlɔŋa*, PL. *loloẽsi* 'bridge' with such a singular form, but with the (loan) plural suffix *-sɪ*. Note the switch in ATR harmony class reflecting Mòoré A-harmony in the singular form (triggered by the *a* vowel of the suffix). The 'tense mid' vowels of the plural forms are in fact lax high vowels (cf. Rennison 1987c; 1993 for details of the Mòoré vowel system in this regard).

57 There are no other words in my corpus with a phonological stem shape similar to *fillʌŋʌ*, but words like *mɔsʌŋa* normally have the [ga] rather than the [ŋa] variant of the suffix, e.g. *hɔ̃sʌga*, PL. *hɔ̃sʌnɛ* 'well' (despite its nasal stem vowel).

58 The number of words with a front or low vowel which drops when the plural suffix *-fɪ* is present is negligible in comparison.

⁵⁹ Some of these words are similar to Mòoré words with a *-gʊ* singular; they may therefore once have had a *g* which has been lost historically.

⁶⁰ In Rennison (1986c) I give a more detailed account (with plentiful examples) of the semantic characteristics of the 'human class' and the 'basic non-human class'.

⁶¹ The word *saandrɛ* 'fatherhood', with a long *aa*, also seems to support this analysis, and to indicate that the word 'father' itself was probably once *saa*, with a long vowel, rather than present-day *sa*.

⁶² The notations '(2x)', '(3x)' etc. mean that the same gloss appears twice (3 times, etc.) for different Koromfe words.

⁶³ This seems to be a very recent development; one of the texts in my collection contains ordinal numbers with the human singular suffix *-ɔ*. Compare §2.1.6.4 below on the formation of the ordinal numerals.

⁶⁴ The origin of the human 3SG. pronoun *də/dɪ* is unknown, but cannot in my opinion be the *dɛ* of the *dɛ/a* noun class. Cf. the description of the personal pronouns in §2.1.2.1.

⁶⁵ Because of the small number of its members, nothing conclusive can be said about the sub-type singular [laŋa] and plural [laʊ].

⁶⁶ Apart from the ubiquitous *-fi* suffix which can be added to virtually any singular.

⁶⁷ The word for 'chain', *kerfe*, is homophonous with the word for 'parrot'. My informants claim that his is purely accidental, and that there is no semantic link between the two meanings.

⁶⁸ One informant suggested that the collective is used for these sexual organs in order to suggest ignorance of the precise details (which would be construed as polite and respectful).

⁶⁹ I was unable to elicit a long form from my informants, and none exists in my Koromfe texts. However, I would not be at all surprised if a long diminutive singular form such as *kɛŋgɛ* did exist.

⁷⁰ Here the word *kaɪmɔ̃* 'old' (used only for humans) is used in the sense of 'deserving respect'. Note that it too has no determiner, and is therefore indefinite.

⁷¹ Apart from the subject NP, this is virtually a repetition of the second part of (561) above; it is taken from the same text.

⁷² This 2nd person singular pronoun is used as a 'special anaphoric' pronoun for the repeated 3rd person subject (cf. §1.5.2.2 above).

⁷³ This 'dummy' stem *kɔ* is phonetically similar to the adverb *kɔ* which means 'in any case'. However, it would be difficult to claim that the two are identical, since they can co-occur, as in *məkɔ kɔ* 'I, in any case' or 'as far as I'm concerned'.

⁷⁴ The postclitic variants of the clitic pronouns must have a full vowel if phrase final; the proclitic variants, on the other hand, never need a full vowel for phonological reasons (though they may have one lexically, e.g. *gʊ*).

⁷⁵ The free form is included here only for completeness' sake. It always consists of the prefixal form plus the 'dummy' stem *kɔ*.

⁷⁶ On this point I have relied entirely on my informants' judgements, which is supported by the sparse cases of plurals in my texts. Prost (1980) reports the same usage, plus, he claims, the occasional use of the non-human singular *gʊ* referring to 'God'; this my informants categorically denied. However, this whole area is clearly one in which further data from normal everyday speech would be of great benefit.

[77] This 2nd person singular pronoun is used as a 'special anaphoric' pronoun for the repeated 3rd person subject (cf. §1.5.2.2 above).

[78] The 'intrusive' velar nasal here is slightly puzzling — cf. §2.1.6.6.1 below.

[79] The non-human subject of this sentence refers to two animals. Here, they give one another the signal to start their tug-of-war.

[80] In this sentence *mɔ́* 'also' implies that this is not the first story that was told.

[81] I was unable to elicit a long form from my informants, and none exists in my Koromfe texts. However, I would not be at all surprised if a long diminutive singular form such as *kɛŋgɛ* did exist.

[82] Historically this is probably the case, though it cannot be upheld synchronically. The 3rd singular human pronoun is now *dɪ*, but was probably once *ɔ* (corresponding to the singular of the *ɔ/ba* human noun class). In Mòoré the corresponding pronoun is *a* and the corresponding noun class is *a/ba* — i.e. the pronoun and the noun class suffix are segmentally identical.

[83] Compare also the HUMAN PLURAL relative pronoun *bɛnəma*, which seems to have a plural suffix *-ma* and a 'stem' *bɛn* which is very similar to the *bɛŋ* of the determiner/demonstrative.

[84] The form *ɪ* is found in the noun class system proper (i.e. on simplex nouns), but *hɛ̃* is found on instrument nouns derived from verbs.

[85] There is some degree of phonological naturalness about the distribution of *h* here, since words beginning with vowels are rare and *h* alternates freely with zero in words like *allɔ / hallɔ* 'stranger'. The velar nasal, on the other hand, has no synchronic source and I cannot put my finger on a diachronic one, even taking into consideration that it may be the reflex of *gʊ* (cf. the *-ŋ* singular variant of the *gʊ/ɪ* noun class).

[86] Of course, strictly speaking *ase ni* is not a separate question word, but simply a variant of *ase* 'what'. For 'why' with a resultative rather than purposive meaning, the construction *ase la pa ke...* 'what gave (i.e. resulted in) (the fact) that...' is used.

[87] The word given here as *wa(ŋ)katɪ* occurs both with and without *ŋ*. The vowel preceding *ŋ* can also be nasal. This seems to be a case of speaker-specific free variation.

[88] There also exists a causative verb *hibs-* from the same stem with the *-s* suffix.

[89] The agent noun derived from this causative verb, *hʊləgrɔ*, is the normal term for 'midwife'.

[90] The final vowels given in parentheses in some of the UNMARKED and DURATIVE forms are fully harmonized and therefore, I claim, not lexically present. They emerge phonetically in phrase-final position only. In all other positions either schwa or nothing is heard, depending on context, tempo, casualness, etc. These phonological processes are quite general for non-lexical vowels.

[91] The environment 'after nasal consonants' is only applicable to the DURATIVE, since UNMARKED forms with a nasal-final stem do not require an 'epenthetic' final vowel.

[92] The verb *wufʌm* is the only one in my corpus with a stem-final *f*.

[93] Phonetically, the verb *birg-* sounds like [biriɣ-].

[94] The stems are given here in their lexical form, i.e. with *-VV* for all phonetic realizations, including *-Vd* and *-Vn*. See §3.1.2.1.4, §3.2.6.4.2 and §3.4.1.2 below for justification of this phonological analysis.

95  The second vowel of the PAST and GERUND forms of these verbs is often extremely weak in comparison with all the other forms; in faster speech it seems to be completely missing. In Rennison (1993) I offer a phonological analysis for this behaviour.

96  I have the impression that my informants sometimes added a phonetic [e] or [ɛ] for my benefit which would otherwise not have been there. In my recordings of spontaneous speech they are consistently dropped.

97  If this *VI* is indeed a suffix, its meaning or function is no longer apparent.

98  Phonologically, the UNMARKED and DURATIVE verb forms acquire a final, fully harmonized 'epenthetic' vowel in phrase-final position (cf. §3.2.6.4.2.2 below). The quality of this vowel is shown in parentheses.

99  In this phonological context, the suffix -*d* is assimilated to -*l*. Cf. §3.4.1.1.2.3 below on this phonological process.

100 This verb is used for the notion of (more) intrinsic surpassing — cf. also §1.8.1.4 above on its use in comparison (in place of comparative and superlative); the verb *kɛ̃s-* on the other hand means 'surpass' in a non-intrinsic reading, and hence has all four inflectional verb forms.

101 This and the next pronoun *n* is a special anaphoric usage of the 2nd singular for a repeated 3rd person subject. Cf. §1.5.2.2.

102 The word *kʊrɔ*, PL. *kʊrəba* is an agent noun derived from the verb *kʊ-* 'kill'; the full or unambiguous expression for 'butcher' is *nɛmmɔ̃ kʊrɔ* 'meat killer'. However, *kʊrɔ* alone normally suffices, and I find it refreshing that the default objects of 'killer' in Koromfe are not human beings but domestic animals.

103 When the subject is emphasized with the postposed emphatic particle *la*, which is homophonous with the copula, this sentence would read *a bɔrɔ hoŋ la waragı*, which looks very much like a 'copula + participle' structure. However, I am sure that no such structure is involved, otherwise we would not expect to find all other 3 finite verb forms in the position of *waragı* (since only the UNMARKED form can ever be a participle); but we **do** find the 3 emphatic sentences: *a bɔrɔ hoŋ la* {*waragɛ* (PAST) / *waragrı* (DUR.) / *waragraa* (PROG.)}.

104 The words *dɔı* and *dɔımɛ̃ɛ̃* both mean length and can be used interchangeably; I have found no context in which they contrast in any way.

105 This holds even bearing in mind that morphologically there is no distinction between the 'adjective' *dɔɔrɛ* and the 'noun' *bɔrɔ*. For here, it is not 'masculinity' that is 'measured', but rather some attribute of a 'man'. Incidentally, *bɔrɔ* is frequently used as an adjective meaning 'male' in kinship terminology — cf. §5.1.1 below.

106 There also exists a form *kebe* meaning 'be large'. It looks as if it ought to be a PAST form of verb *keb-* 'grow', but such a verb does not exist; instead we find *keb+s-* 'grow', with an -*s* suffix. Compare also the nominal adjective *kebre*, PL. *kebıʌ* 'big'.

107 The variation in the length of the final *a*'s is identical to that found in the PROGRESSIVE forms of verbs, and is phonologically automatic. The verbal adjectives given here with a short *a* only are those for which I omitted to elicit a phrase-final form (which, I am sure, would have a long *aa*).

108 Contrary to cases where *a* follows *ʊ* or *ı* across a word boundary, in *la ʊkɔ* and *la ıkɔ* the sequences *a+ʊ* and *a+ı* do not fuse phonetically or assimilate noticeably.

<sup>109</sup> When the vowel preceding the article *a* is high (and not 'epenthetic'), it must lower to mid when the article drops. This does not affect prepositions before *a* because there are none with high vowels. On this lowering process, which is in fact coalescence of the vowel qualities, see §3.4.3.2.2 below.

<sup>110</sup> As far as I can interpret Prost's transcription, both *ba*, the NEGATIVE particle and *ŋgo*, a defective verb meaning 'not be/have' are used, as shown in the following table. The word transcribed *zangofo* by Prost does not exist in Mengao Koromfe:

| *Prost* | *my interpretation* | *glosses* | *numeral* |
|---|---|---|---|
| ihimbafi | ɪhĩĩ ba fɪ | two + NEG. + ten | 8 |
| kadungɔfi | gadɔm ŋgo fɪ | one + not-be + ten | 9 |
| sufi-gɔ-zangofo | sofe ŋgo ??? | twenty + not-be + hundred (?) | 80 |
| fi-gɔ-zangofo | fɪ ŋgo ??? | ten + not-be + hundred (?) | 90 |

<sup>111</sup> I cannot imagine that the loan word *so* 'bucket' (from French *seau*) has anything to do with this numeral. It is never used with the singulative suffix *-fɛ*.

<sup>112</sup> Here, as elsewhere, the regular phonological assimilation of *tɪ+a* to phonetic [tɛ] has been reconstructed.

<sup>113</sup> The word *hānāʊ* 'good turn', if considered to be derived from the nominal adjective *hānāŋ*, PL. *hānĩã* rather than the verbal adjective *hāna* 'be good', would be the only noun → noun derivation involving the suffix *-ʊ* (which otherwise occurs only in verb → noun derivations). Since this word clearly involves an action, it is treated with the other verb → noun derivations, and there is no suffix *-ʊ* in noun → noun derivations.

<sup>114</sup> Here and throughout this monograph, I use the abbreviation 'source' to mean 'the best putative source that is available'.

<sup>115</sup> Note that the compound status of the word *sabi* is forecast by the fact that its vowels are disharmonic for ATR. In a single morpheme, only (hypothetical) *sabɪ* or *sʌbi* would be phonologically possible.

<sup>116</sup> This is one of the few words where the *-Vl* 'suffixoid' verbal ending might be construed as a derivational suffix. Cf. the discussion of this type of verb in §2.2.2.1.1 and of their vowel harmony in §3.2.6.4.2.1.

<sup>117</sup> Compare *kɪpergʊ*, blanket from *kɪ* plus *pergʊ* 'cloth, robe'.

<sup>118</sup> If this hypothetical source is not accepted, then there is no current source for *jarfɪ* in the language. Compare the related words *jar-* (verb) 'calm' and *jarəg-* (i.e. */jar+g/*, verb) 'cool down'. The former verb has no DURATIVE stem *jarf* in my corpus, but must once have had one if my analysis of *jarfɪ* is correct.

<sup>119</sup> The second vowel of *hānāŋ* is epenthetic, as evidenced by the absence of a second *ā* in the corresponding plural form *hānĩã*, from */hān+ĩã/*. This word is a regular member of the 'singular [Vŋ] and plural [ĩã]' variant of the *gʊ/ɪ* class described in §2.1.1.9.1.2.5 above.

<sup>120</sup> This and the following sub-sections are numbered with an internal zero to avoid a numbering clash with the *Lingua Questionnaire*, which contains a section numbered 2.2.1.2.1.

<sup>121</sup> Recall that the final vowel of a DURATIVE verb form surfaces phonetically only in phrase-final position and is a fully harmonized 'epenthetic' vowel.

<sup>122</sup> In some instrument nouns with ATR stems -*hĩ* is also found, e.g. *sumbotrəhi* '(bottle) openers' from *sumbot-* 'open'. However, -*hĩ* without ATR is not found. Phonologically this behaviour parallels the locative postposition *nɛ*, which can be *ne* or *ni* with ATR, but never *nɪ* without ATR.

<sup>123</sup> The LOCATION noun derived with the suffix -*fa* can always be pluralized by the addition of the 'default' plural suffix -*fɪ*, producing in this case *tufəfʌfɪ* 'seat (PL.)' — a pattern which can be found with the DURATIVE stem of any verb for which a plural LOCATION noun is semantically plausible.

<sup>124</sup> The instrument plural suffix -*hɛ̃* comes closest to being unique to derived nouns, but is also the suffixal clitic non-human plural pronoun.

<sup>125</sup> Although I have not personally conducted a search, Manessy (1969) gives no pronoun forms comparable to *də/dɪ* for other Gur languages. In the related language Mòoré, where the noun class suffix is -*a* instead of -*ɔ*, there is complete agreement between the underived human class suffix, the agent noun suffix and the (short) clitic subject and object pronoun: all are *a*.

<sup>126</sup> This gap is only on the content side, since formally there does exist a pronoun suffix *nɛ* (phonologically indistinguishable from *nɪ* since high vowels frequently lower to mid word-finally), which is the 2nd person singular postclitic pronoun.

<sup>127</sup> This verb occurs only with a DURATIVE stem in my corpus — probably for semantic reasons, since it denotes a more permanent kind of possession.

<sup>128</sup> The derivation of such action nouns from verbs is also idiosyncratic in the related local language Mòoré, but even more so: there is no regular derivation corresponding to Koromfe -*am*.

<sup>129</sup> This verb is defective, having no other inflectional forms apart from the unmarked form *ŋgo* given here.

<sup>130</sup> The plural with -*fɪ* is given here only to indicate that it is also used for the concrete reading of this noun. A plural in -*fɪ* can always be formed from any singular noun in Koromfe.

<sup>131</sup> The base verb *hom-* has undergone semantic shift to a specific activity which generates heat. Compare the related words *homnʌʌ* (verbal adjective) 'be hot' and *homs-* (verb, from /hom+s/) 'heat'.

<sup>132</sup> There also exists no verbal adjective *\*dɔnəmaa*. Note also that the second *d* of *dɔnda* is arguably a verbal-adjective-forming suffix (cf. §2.2.2.2 below).

<sup>133</sup> There exists no verbal adjective *\*pɔtəmaa* (i.e. /pɔt+m+aa/ which ought to involve the same intermediate stem as the derived noun *pɔtmɛ̃ɛ̃*.

<sup>134</sup> There is no nominal adjective, or indeed any other word, formed from this stem.

<sup>135</sup> My informants expressed their intuition quite clearly that 'marry (a woman)' and 'plunder' were two facets of the same meaning. The other verb for 'marry (a woman)' has the primary meaning 'pull (by the hand)'. The two verbs meaning 'marry (a man)' have the primary meanings 'return home (INTRANS.)' and 'take, pick up'.

<sup>136</sup> Only the PROGRESSIVE form has been omitted to save space; it exists for all and only those verbs in (731) which have a DURATIVE form, and is formed by adding an -*aa* suffix to the DURATIVE (and dropping the phrase-final vowel given in parentheses).

137   This verb has no other inflectional forms; instead its derivative *dɛɪs-* (from /*dɛɪ+s/*) can be used, which has a full inflectional paradigm and is completely regular. (Compare also *kɛ̃*, which shows the same behaviour.)

138   This verb has only a DURATIVE and a PROGRESSIVE form. The stem *fe-* of *felei* exists nowhere else.

139   I know of no reason why the stem vowel is *ã* in the verb but *ɛ̃* in *jɛ̃lɛɪ*. There also exist a) a derived noun *jɛ̃ɛ̃la*, PL. *jɛ̃ɛ̃lama* 'wise man' (with an idiosyncratic long vowel) and b) an unanalysable negative verb *bãĩ* which may historically have arisen from *ba jã* (where *ba* is the regular negative particle).

140   This verb has no other inflectional forms; instead its derivative *kɛ̃s-* (from /*kɛ̃+s/*can be used, which has a full inflectional paradigm and is completely regular. (Compare also *dɛɪ*, which shows the same behaviour.)

141   This verb has the 3 variants of the UNMARKED form given here, and no other inflectional forms. There exists a derived noun *nilo*, PL. *niləbʌ* 'soothsayer, clairvoyant'. I have no idea why *niilei*, and no other form from this root, has a long *ii*. (Cf. also the idiosyncratic long vowel in *wɛ̃ɛ̃lɛɪ*.)

142   This source verb has a PROGRESSIVE form *jã ŋaa* instead of regular *\*jã ŋənaa*. Otherwise it is completely regular.

143   The *n* in the verbal adjectives given here as source words is absent in the nouns derived with the *-Vl* suffix. Since these are the only pairs of related words in which this *n* occurs, it is difficult to say whether it is a derivational suffix for the verbal adjectives, or the (regular) nasalized variant of the *-d* DURATIVE suffix (in which case the verbal adjectives are (fossilized) PROGRESSIVE verb forms that are now indeclinable). However, since there exist other derivations like the regular verb *toŋ+s* 'become sour', related to *toŋoi*, I tend to favour the latter analysis.

144   There also exists a related full verb *boŋ+s* 'love' which is completely regular.

145   The abstract form *bun+ (V)l* spells out, by quite regular phonological processes, as *buno* (UNMARKED), *bunne* (PAST), *bunond(u)* (DUR.) and *bunondʌʌ* (PROG.). In all these forms the 'underlying' *l* is nasalized to *n*. The action noun, *bunoi* is the only action noun derived from this verb — i.e. it has no regular formation with *-am* such as expected *\*bunnʌm*.

146   My informants considered these words to be semantically related: one respects someone's 'moral weight'.

147   Compare also the derived noun *homde* 'dry season' in (729) above and related words given in footnote 131.

148   Only *hɔ̃n-* 'dance' has a DURATIVE form parallel to *pand(ɪ)*, namely *hɔ̃nd(ʋ)*.

149   In the UNMARKED form of all verbs with *-Vl* the stem-final consonant *l* drops. These forms are therefore completely regular.

150   In the PAST form of all verbs with *-Vl* the *V* drops, and *l* is nasalized to *n* when the stem-final consonant of the verb is nasal. These forms are therefore completely regular.

151   In Mòoré there also exists a single word in the human class, *dawa*, PL. *dapa* 'man' which forms its plural in a similar way, if the *w* comes from a historical *b*. It would be highly speculative to suggest that this word is genetically the same as Koromfe *sɔbɔ*.

152   This verb has a *-Vl* suffixoid; there exists no verb *\*hʋb-*.

153    The form *dɔ̃ndəmɛ̃ɛ̃*, which appears in my Koromfe dictionary, was rejected by Souleymane, my most reliable informant. However, its existence in the opinion of another informant, whose name I prefer not to mention, shows that the status of these derivations is quite uncertain.

154    Although this noun also has an *n* (regularly derivable from *d*), it has a striking similarity to agent nouns derived from DURATIVE verb stems.

155    A putative PROGRESSIVE suffix *-da(a)* attached to a stem *hal-* would be assimilated to *l*. Compare the regular PROGRESSIVE form *kɛllaa* from the verb *kɛl-*.

156    The form *homnʌʌ* is both regular and irregular at the same time in its phonological behaviour; the nasalization of *d* to (putative) *n* is obligatory in PROGRESSIVE forms, but we would further expect assimilation of the place of articulation to *m*, as in regular *dimmʌʌ* from *dim-* 'thunder'.

157    The *t* of *kɪtaa* is regular if the stem from which it derives is *kɪr-* (lexically /kɪd-/).

158    There exists a phonologically similar verb *kɪr-* 'exchange', but I see no semantic connection to this verbal noun.

159    Only the reduplicated adverb *lɛɛlɛ* 'only', from *lɛ* 'thus, only' has an anomalous phonological shape, where the first vowel is lengthened.

160    I do not wish to suggest, by grouping these 4 irregular adverbs together under one heading, that there is any regular synchronic formation involved here. There is nothing more than a superficial similarity of the final syllable. Clearly *dããnɛ* 'home' is related historically to *dãŋ* 'house' and *gɔɔnɛ* 'again' to *gɔ-* 'do again', but there is no regular synchronic process that derives an adverb by adding a *-nɛ* suffix to a noun or verb, and no regular phonological process that would explain the resulting word shapes with a lengthened vowel.

161    The two variants *gɔɔnɛ* and *gɔɪnɛ* are in free variation. There exist other word pairs in the language where sporadically a long *ɔɔ* and a diphthong *ɔɪ* are related (e.g. *dɔɪ+s-* 'lengthen', *dɔɔrɛ*, PL. *dɔja* 'long')

162    The adverb 'outdoors' is used here in the sense of 'out of the water', and is contrasted in the source text with 'in water'. In this sentence the rabbit is speaking, and is tricking the elephant into thinking that he will get back his child (whom rabbit ate). The subject of this sentence is the (now imaginary) child of the elephant.

163    I see no way of semantically relating the *som* part of *somhĩĩ* to *sɔmdɛ*, PL. *sɔma* 'red; European person' or to *sɔmmɔ̃* 'salt'. If days were considered to 'die', then *sɔ̃m* 'death' would be a good source; but they are not.

164    In faster speech, non-low vowels of some of these class suffixes tend to be elided; however, there are only few noun class suffixes which comprise a single non-low vowel. Recall also that schwa ([ə]) is never a class suffix: indeed, morphologically it is nothing at all.

165    The unwieldy gloss 'a bird's/birds' nest (SG.)' is intended to show that this compound is indeterminate as to the number of birds to whom the nest belongs.

166    The degree of transparency of such words is debatable: my informants often discovered the structure of these words only when I drew their attention to them.

167    However, as with English *happinesses*, it is always possible to form an *ad hoc* plural in Koromfe by adding *-fi* to the singular.

168    Since the plural formation of the second noun of all N+N and NP+N structures is identical with that of the same noun in isolation, the plural is not given in this and the following tables. The first nouns of N+N compounds, on the other hand, are

given in both their singular and plural forms (if both exist) in order to show that it is indeed the bare noun stem that occurs in the compound.

169  The forms given in the $N_2$ column, here and in the following tables, are also the full forms of $N_2$ when used in isolation. They are therefore not repeated in a separate column.

170  The complex NP+N structure *bara kɛ̃ɔ̃* also exists for this word. Phonetically the difference is very small.

171  This genitival N+N compound is homophonous with the appositive N+N compound meaning 'cock', given in (757) below.

172  This word may have an appositive rather than genitival reading, i.e. '(piece of) wood which is a stump'.

173  Neither of the words given here as a potential source are satisfactory. 'Woman', though phonetically close, (this word also has a free variant *kɛ̃ pergʊ*) could not be taken literally, since men also wear such robes, and 'body', though semantically close, is phonologically too remote (even though there exists a word *kɪ ʐamdɛ* 'ugly' with a morpheme *kɪ* which could easily mean 'body').

174  This compound occurs mainly in the (further) compound *nɛ̃ŋ hamnɛ sa* 'chatterbox, gossip' (lit.: 'owner of fire of the mouth')

175  The forms given in the $N_2$ column, here and in the following tables, are also the full forms of $N_2$ when used in isolation. They are therefore not repeated in a separate column.

176  The N+N compounds with *wɔ̃ndɛ* 'hand' and *wolle* 'foot' show us that it is the plural, not the singular form which is irregular (probably arising historically by the assimilation of the stem vowel to the suffix vowel *a*). There are very few nouns like *wolle* which switch ATR harmony class between singular and plural.

177  Compare also the forms in (757) and footnote 180.

178  It is debatable, from a formal point of view, whether the final *a* of the short kinship terms with the phonological shape CV in the singular, such as *sa* 'father', *jã* 'mother', is a part of the stem or a suffix. However, since this compound uses the plural meaning of *sa*, i.e. 'ancestors' rather than 'fathers', I take it to be a noun stem. Also, phonologically *s bɪ* with contiguous *s* and *b* would be impossible, and nothing resembling it (e.g. *sə bɪ*) ever occurs.

179  In contrast with *bi* 'child', the words *bɛtɛ* 'male' and *jãʊ̃* 'female' can only be used for non-human referents. However, it seems that both words are genetically related to their human counterparts *bɔrɔ*, PL. *benna* 'male' and *jã*, PL. *jãmmã* 'mother' respectively.

180  The animal names with *bi* as the second noun of an N+N compound noun are ambiguous vis-à-vis the genitival vs. appositive reading, i.e. they can be read as 'a child of animal X' or 'an animal X that is still a child'. Compare also the two possible readings of *bi* in the kinship terminology in §5.1.1 below.

181  The basic meaning of *wɔ̃nɔ̃ŋ* is probably the generic 'fowl', since it is used in compounds denoting other kinds of fowl than 'chickens'. However, in the unmarked case, the 'fowl' referred to is a 'chicken'.

182  Here the interpretation of *sa* as being the word 'father' collapses semantically.

183  For simplicity and clarity of presentation the rest of the structure of the NP immediately containing $N_1$ is omitted in this and the following tables.

184 A millstone of the Koromba consists of a large stone, the 'millstone mother' (*a nʊŋgʊ jãõ̃*) with hollows in which grain is placed and pounded with a smaller stone (*a nʊŋgʊ bi*).

185 The expression for 'to be angry' in Koromfe is *a bɪndɛ bakam*, literally 'to make heart'.

186 Both these NPs occur, among other places, in a single story where a spirit of the bush disguises a hunter by making him one-eyed, then later removes the disguise.

187 The discrepancy between the glosses 'any' and 'every' results from the fact that the verb of which this NP is the subject is negated in the original text.

188 The word *bɔrɔ* is normally used in the sense of 'man' or 'male friend', but does not necessarily imply maturity, as these examples show.

189 The word *bɛtɛ*, PL. *bera* normally designates a male animal. However, here and in the N+N compound *wɔ̃nə bɛtɛ* 'thumb' given in §2.3.1.1.1 above the meaning seems to be 'penis-shaped object'. The normal word for 'penis' is *hɔ̃ĩnɛ*, PL. *hɔ̃ja* — perhaps *bɛtɛ* is a euphemism here.

190 My informants rejected the idea that 'arrow', which the word *samdɛ*, PL. *sama* is used to designate, is its basic meaning.

191 The difference in the nasality of the vowel *ɔ/ɔ̃* is probably a slip on my part.

192 Perhaps by analogy with *a tuu dɔʊ*, the compound *tubre dɔʊ* was used with an article by one informant. I suspect that this was hypercorrection, but cannot tell how widespread it is. Normally NPs with the structure ADV+N do not take an article or other prenominal modifier.

*This page intentionally left blank*

# 3 Phonology

## 3.1 Phonological units (segmental)

### 3.1.1 The distinctive segments of the language

*3.1.1.1 The vowels*

The basic vowel system of Koromfe, disregarding diphthongs, has 5 full vowels, as given in (790), plus a weak mid central vowel schwa [ə]. Each of the 5 full vowels has a counterpart with ATR, and each of these 10 vowels can be nasal or oral, giving 20 short monophthongs. Finally, all vowels (except for the accidental gap [õ:]) can be long, giving 39 full vowels (and with schwa a total inventory of 40 vowels). The full system is given in (791).

(790) *The basic vowel system of Koromfe — 5 short, lax oral monophthongs, plus a prosodically weak mid central schwa*

|  | front | central | back |
|---|---|---|---|
| *high* | ɪ |  | ʊ |
| *mid* | ɛ | (ə) | ɔ |
| *low* |  | a |  |

(791) *The complete system of monophthongs in Koromfe — 39 full vowels, plus a prosodically weak mid central schwa. (In each cell the oral vowels are in the top row and nasal in the bottom row, the short vowels are in the left half of the cell and the long vowels in the right half. The lax/tense or non-ATR/ATR variants are ordered in pairs, the first being lax and the second tense.)*

|  | front | central | back |
|---|---|---|---|
| *high* | ɪ i ɪ: i: <br> ĩ ĩ ĩ: ĩ: |  | ʊ u ʊ: u: <br> ũ ũ ũ: ũ: |
| *mid* | ɛ e ɛ: e: <br> ɛ̃ ẽ ɛ̃: ẽ: | (ə) | ɔ o ɔ: o: <br> ɔ̃: õ ɔ̃: *õ: |
| *low* |  | a ʌ a: ʌ: <br> ã ʌ̃ ã: ʌ̃: |  |

There are no front rounded vowels or back unrounded vowels (even as allophones).[1] There are also no tones (cf. §3.3.3 below).

377

## 3.1.1.2 The consonants

The consonant phonemes of Koromfe are given in (792).

(792)   *The consonant phonemes (without allophones)*

|  | labio-labial | labio-dental | apico-alveolar | dorso-palatal | dorso-velar | glottal |
|---|---|---|---|---|---|---|
| *voiceless stop (fortis)* | p | | t | | k | |
| *voiced stop (lenis)* | b | | d | | g | |
| *voiceless fricative* | | f | s | | | |
| *voiced fricative* | | v | z | | | |
| *nasal stop* | m | | n | | ŋ | |
| *tap* | | | (r)² | | | |
| *lateral approximant* | | | l | | | |
| *oral glide* | w | | | j | | h |

No other places or manners of articulation are used. In particular, apart from the glide /j/ there is no series of dorso-palatal consonants — not even allophonically. The nasal stops present something of a problem for a 'phonemic' analysis because there seem to exist two kinds of /n/: one which stays phonetic [n] everywhere and one which assimilates to the place of articulation of the following consonant (noted here with a capital /N/). Of course, for any given sequence of '[n] plus homorganic consonant' it is not always easy to tell which nasal stop is involved.

### 3.1.2 Allophony and phonetic realization

#### 3.1.2.1 Non-syllabics

The token frequencies of the major phonetic allophones of consonants in my Koromfe texts (Rennison, 1986b) are given in (793). This graph is given to provide a rough idea of relative frequencies and should not be taken to be representative of the language as a whole.

(793)  *The frequencies of phonetic consonant allophones in my Koromfe texts (Rennison, 1986b)*

| | | | | | |
|---|---|---|---|---|---|
| p | 107 | | | | |
| t | 331 | | | | |
| kj | 277 | | | | |
| k | 622 | | | | |
| b | 720 | | | | |
| d | 891 | | | | |
| ɡj | 71 | | | | |
| ɡ | 320 | | | | |
| m | 583 | | | | |
| n | 683 | | | | |
| ŋ | 569 | | | | |
| f | 201 | | | | |
| s | 333 | | | | |
| v | 12 | | | | |
| z | 145 | | | | |
| ɣ | 211 | | | | |
| r | 378 | | | | |
| l | 520 | | | | |
| j | 325 | | | | |
| ĵ | 94 | | | | |
| w | 88 | | | | |
| w̃ | 87 | | | | |
| h | 273 | | | | |

```
  0    200   400   600   800  1000
```
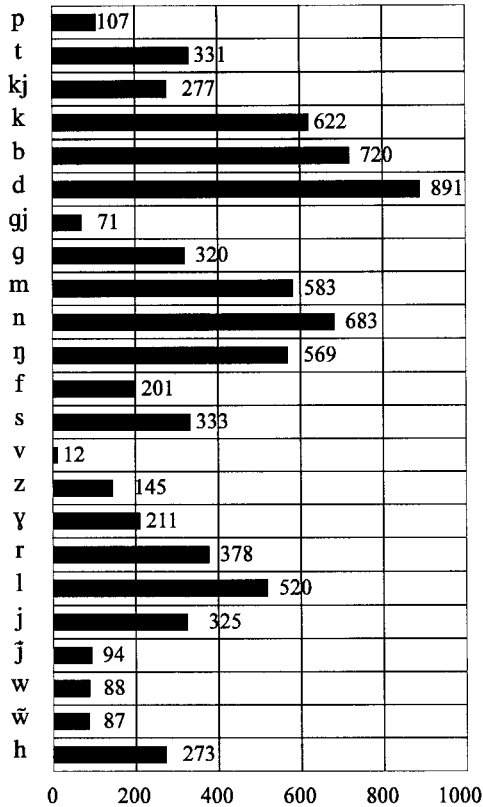
### 3.1.2.1.1 Plosives

Koromfe has plosives but no affricates, either phonemically or phonetically, even though an important typological prerequisite for affricates (i.e. the presence of stops and fricatives)[3] is given. The plosives are shown separately in (794). They use 3 out of 6 places of articulation and both of the available types of voicing. Of the 3 unused places of articulation, one (labio-dental) is hardly expected for stops. The glottal place of articulation is used only marginally (purely phonetically) at the beginning of the few vowel-initial words which exist. The dorso-palatal place of articulation is an important and quite definite lacuna in the system. Other scholars (e.g. Manessy, 1969) have postulated a palatal series of consonants for the Gur languages, and even for Koromfe (Prost, 1980); Koromfe has only the

palatal glide (though see 3.1.2.1.5.1 below on the palatal nasal [ɲ] as a careful/slow-speech allophone of nasalized /j/).

(794)    *The non-nasal stops (plosives)*

|  | labio-labial | labio-dental | apico-alveolar | dorso-palatal | dorso-velar | glottal |
|---|---|---|---|---|---|---|
| *voiceless stop (fortis)* | p |  | t |  | k |  |
| *voiced stop (lenis)* | b |  | d |  | g |  |

Word-initially, the voiceless stops are slightly aspirated — somewhat less than in English, and the voiced stops are fully voiced. In intervocalic position the voiceless stops are pronounced almost identically to word-initial position, i.e. also slightly aspirated (and not unaspirated, as in English).

Before inspecting the phonetic forms given below, please note the following:

- Ignore schwa! The vowel schwa ([ə]) is the optional phonetic realization of a phonologically licensed empty nucleus (cf. Rennison, 1993). It appears or disappears according to tempo and casualness of speech. The best thing for the sake of the segmental phonetics and phonology is simply to ignore it.
- There are no final obstruents; word-finally only [m,n,ŋ,l] ever appear, of which [n] is rare.
- The intervocalic forms given below are cases in which there is definitely **no** morpheme boundary preceding the segment in question. The 'other medial' forms, on the other hand, may or may not have a preceding morpheme boundary.

### 3.1.2.1.1.1 The labio-labial voiceless (fortis) stop /p/

The voiceless bilabial stop /p/ occurs freely in word-initial positions but extremely rarely in any other position. Of the two intervocalic [p]'s given in (795), the first two are fused (sɔpa from /sɔb+ba/ — cf. SG. sɔbɔ, and zapa from /zab+ba/ — cf. zabrɛɪ 'silliness') and the last two may be a loan. The only medial example, ATR-disharmonic *darpo*, is a loan from French *drapeau*.

This extremely low frequency of medial [p] in contrast with the other voiceless stops [t] and [k] is clearly a repercussion of the fact that there is only one suffix (namely -*ba*) which could potentially trigger fusion of two

lenis /b/'s to fortis [p] and so few word-stems ending in /b/ to which this suffix could attach. The relatively small variety of stem-final consonants in Gur languages compared with almost complete freedom of stem-initial consonants has been noted by several previous researchers (Manessy, 1969; Nikiema, 1980a).

(795)   *Phonetic realizations of /p/*

| initial | gloss | inter-vocalic[4] | gloss | other medial[5] | gloss |
|---|---|---|---|---|---|
| paɣalam | 'close' | sɔpa | 'hunters' | darpo | 'flag' |
| pʌ̃rsʌm | 'widen' | zapa | 'silly' | | |
| pɛllɛ | 'rock' | zapama | 'shoemakers' | | |
| pẽnɛ | 'robe' | zapa | 'shoemaker' | | |
| pesu | 'sheep' | | | | |
| pɪlaŋ | 'moon' | | | | |
| pisʌm | 'burst' | | | | |
| pɔtʊ | 'much' | | | | |
| põmdɛ | 'nose' | | | | |
| poɣu | 'shell' | | | | |
| pʊllɛ | 'stick' | | | | |
| puɣolʌm | 'sacrifice' | | | | |

### 3.1.2.1.1.2 The labio-labial voiced (lenis) stop /b/

Unlike its voiceless counterpart, /b/ is frequently found in intervocalic positions. There is no tendency at all for medial [b] to weaken in any way (e.g. to spirantize as in Viennese German or Kinyarwanda) — in sharp contrast to the velar place of articulation.

Initially and medially [b] is fully voiced; however, when followed by a voiceless (fortis) stop, the realization is partly or even completely devoiced e.g. [hʊb̥tam] or [hʊptam] 'throw', but it is never aspirated and therefore never phonetically identical to any (potential)[6] realization of /p/.

(796)   *Phonetic realizations of /b/*

| initial | gloss | intervocalic | gloss | other medial | gloss |
|---|---|---|---|---|---|
| bakɔ | 'they' | bɛbam | 'dress' | bɛbrɔba | 'travellers' |
| bʌndəbi | 'cousin' | dɔɔba | 'peasants' | dʊmbəya | 'small piece' |
| bãŋgʊ | 'circumcision' | dɔba | 'top' | dubsʌm | 'respect' |
| bʌ̃ʌ̃ni | 'health' | gjɛbɛ | 'pounded' | gjɪbrɛ | 'hatchet' |
| bɛbrəba | 'travellers' | hubo | 'graves' | gʊbrɛ | 'pond' |

| initial | gloss | intervocalic | gloss | other medial | gloss |
|---------|-------|--------------|-------|--------------|-------|
| bɛ̃ʊ̃ | 'arrival' | kʊbɔ | 'neck' | gabka | 'small knife' |
| beləŋʌ | 'child' | laba | 'bags' | gabrɛ | 'knife' |
| bɪndɛ | 'heart' | nɛba | 'peas' | hʊbtam | 'throw' |
| birɛŋgre | 'twilight' | sɪbam | 'die' | hubre | 'ditch' |
| bĩnĩŋ | 'black' | sɔbɔ | 'hunter' | jɪbrɛ | 'eye' |
| bɔndɔŋ | 'mortar' | subo | 'pots' | nibəni | 'grandchildren' |
| bɔ̃ɔ̃ | 'hole' | tobolʌm | 'pound' | sɛ̃btam | 'split' |
| bollre | 'window' | vabalam | 'hit' | tembre | 'brick' |
| bʊkʊ | 'shoulder' | zʊbam | 'burn' | wʊbsam | 'vomit' |
| buno | 'thief' | zaabɪ | 'bad' | zambam | 'deceive' |

### 3.1.2.1.1.3 The apico-alveolar voiceless (fortis) stop /t/

Like the other alveolar consonants of Koromfe, phonetic [t] is apical or apico-laminal, and gives an impression of 'lightness' when contrasted with English or German laminal alveolar [t]. Despite this apicality, there is no tendency towards a more anterior (e.g. dental) articulation.

In medial positions, [t] is often a reflex of the fusion (coalescence) of two lenis stops — cf. §3.4.3.1 below.

(797)    *Phonetic realizations of /t/*

| initial | gloss | inter-vocalic | gloss | other medial | gloss |
|---------|-------|---------------|-------|--------------|-------|
| taʊ | 'water-hole' | bɪtɛ | 'frog' | babtam | 'lie in wait' |
| tãaŋa | 'contradiction' | dʊtɛ | 'cloud' | gubtʌm | 'assemble' |
| tɛŋgrəba | 'companions' | dɔ̃nɔtam | 'detach' | hɛ̃btʊ | 'tongs' |
| tɛ̃ŋsam | 'be late' | fɛnɛtaʊ | 'windows' | hubtre | 'commun. work' |
| tembre | 'brick' | haɪtam | 'remember' | jãntre | 'kind of grass' |
| trɣam | 'put, do' | joote | 'today' | kutəɣʌ | 'stool' |
| tĩĩndoŋfe | 'rainbow' | kjɛmɛtam | 'turn round' | kutre | 'root' |
| timʌm | 'fight' | paɣatam | 'open' | lɔɣtam | 'break' |
| tĩŋgfe | 'fly' | pɛta | 'fan' | maɣtam | 'be correct' |
| tɔɔm | 'marry' | tomatɪ | 'tomatoes' | mɛntam | 'assemble' |
| tɔ̃ɛ̃ | 'honey' | wete | 'day' | nabtəfɛ | 'sesame' |
| toŋgʌm | 'join' | woto | 'liar' | sɛ̃btam | 'split' |
| tʊŋɔɪ | 'depth' | w̃ãŋkatɪ | 'moment' | zaɣtam | 'stir' |
| tuu | 'bush' | zɔ̃tam | 'choose' | zoɣto | 'scoop' |

### 3.1.2.1.1.4 The apico-alveolar voiced (lenis) stop /d/

The apico-alveolar voiced stop /d/ is realized as [d] in two environments only: word-initially and immediately after a nasal stop consonant (which need not be homorganic). Examples of both these environments are given in (798).

In all other phonological environments (all of which are medial) /d/ is realized as the apico-alveolar tap [r]. Examples are given in (799). This means that the phonetic realizations of /d/ as [d] are far fewer in number than its realizations as [r]. (Recall that there is no phoneme /r/ except in a handful of loan-words.)

(798)   *Realizations of /d/ as phonetic [d]*

| initial | gloss | medial | gloss |
|---------|-------|--------|-------|
| dɔkɔ | '(s)he' | baŋde | 'noon' |
| datɛ | 'chest' | bɪndɛ | 'heart' |
| dãŋ | 'house' | bɔndɔŋ | 'mortar' |
| dɛrya | 'hill' | fɛndɛ | 'moment' |
| dɛ̃nam | 'pull' | gɛŋde | 'pebble' |
| debre | 'tamtam' | gʊmdɛ | 'small bit' |
| dɪyrɛ | 'right hand' | hɔndəya | 'navel' |
| dĩ̀ndɛ | 'ear' | hɔndənɪ | 'navels' |
| diyʌm | 'sow' | hɔnda | 'hoes' |
| dĩŋgu | 'kind of tree' | hɔndrɛ | 'hoe' |
| dɔʊ | 'animal' | hẽndam | 'meet' |
| dɔ̃mam | 'bite' | homde | 'dry season' |
| dollo | 'seller' | loyomde | 'camel' |
| dʊmdɛ | 'lion' | sondre | 'egg' |
| dõĩ | 'this year' | w̃ɔ̃mdɛ | 'monkey' |
| duyre | 'species' (SG.) | w̃ɔ̃ndɛ | 'hand' |
| dũŋgʌm | 'carry' | zɛŋdɛ | 'upper arm' |

(799)   *Realizations of /d/ as phonetic [r]*

| intervocalic | gloss | other medial | gloss |
|--------------|-------|--------------|-------|
| bara | 'husband' | bɛbrəba | 'travellers' |
| bɪra | 'frogs' | bɛllraa | 'fan' (PROG.) |
| bɔrʊ | 'way' | bollre | 'window' |
| dɔra | 'clouds' | dɛyrɛ | 'accusation' |
| faram | 'go forward' | dɛrya | 'hill' |

| intervocalic | gloss | other medial | gloss |
|---|---|---|---|
| fɛram | 'cultivate' | dɔfrɛ | 'God' |
| gʌrʌm | 'rotate' | gabrɛ | 'knife' |
| qjɪram | 'judge' | hɔndrɛ | 'hoe' |
| gorʌ | 'streams' | hobtrəbʌ | 'robber' |
| hʊra | 'souls' | hubre | 'ditch' |
| jɪram | 'call' | hullre | 'gutter' |
| korombʌ | 'Koromba' | hɔ̃krɛ | 'itch' |
| laram | 'look for' | hɔ̃mbrɛ | 'fig tree' |
| toroŋ | 'pipe' | kʊryraa | 'dry' (PROG.) |
| were | 'fig-tree' | sondre | 'egg' |
| zɔrɛ | 'easy' | tembre | 'brick' |
| zoromʌm | 'ask for' | zeyre | 'rag' |

There also exists a phonetic intervocalic [d] as in [feredʌm] 'whistle'; however, this segment is quite clearly an allophone of /l/ and not of /d/. In native vocabulary it occurs exclusively[7] as the result of the dissimilation process described in §3.4.1.2 below.

### 3.1.2.1.1.5 The dorso-velar voiceless (fortis) stop /k/

The velar stops /k/ and /g/ both have an obligatory palatal offglide (transcribed here as a following [j]) when in word-initial position and followed by a non-low front vowel ([i,ɪ,e,ɛ] in all their nasality and length variants). The offglide, though clearly audible, does not noticeable increase the overall length of the *kV* or *gV* sequence. In medial positions this offglide is optional and sounds weaker than in initial position. The word *keki* 'take' can therefore be realized as [kjekji] or [kjeki]. When /g/ is spirantized to [y] no palatal offglide is possible.

(800)   *Phonetic realizations of /k/*

| initial | gloss | inter-vocalic | gloss | other medial | gloss |
|---|---|---|---|---|---|
| kaka | 'grandparent' | bakam | 'do' | bakraa | 'do' (PROG.) |
| kãŋ | 'thing' | fɛkʊ | 'tree' | barka | 'thanks' |
| kʌusʌm | 'cry' | gokʌ | 'left hand' | gabka | 'small knife' |
| kjendam | 'finish' | gʊkɔ | 'it' | gɔktam | 'peck' |
| kjẽna | 'women' | hɪkʊ | 'termite hill' | hɔ̃krɛ | 'itch' |
| kjebre | 'big' | hɔ̃kam | 'scratch' | jebkʌ | 'daytime' |
| kjɪbtam | 'pinch' | jɪka | 'front' | nɛbka | 'pea' |

| initial | gloss | inter-vocalic | gloss | other medial | gloss |
|---------|-------|---------------|-------|--------------|-------|
| kjii | 'madness' | jɔ̃kam | 'stab' | nɔ̃kəfɪ | 'hazel-trees' |
| kɔtɛ | 'back of neck' | kɔkam | 'defoliate' | sɛkrɛ | 'half |
| kɔ̃ndam | 'find' | luko | 'cat' | subkʌ | 'small pot' |
| koromfe | 'Koromfe' | nɔ̃kʊ | 'hazel-tree' | tɪkəba | 'doers' |
| kʊryam | 'dry' | sʊkam | 'ventilate' | tɔkrəba | '(wood-)cutters' |
| kuromgʌ | 'flying squirrel' | zekʌ | 'louse' | w̃ãŋkatɪ | 'moment' |

### 3.1.2.1.1.6 The dorso-velar voiced (lenis) stop /g/

The velar voiced stop /g/ has a weakened medial allophone [ɣ] which occurs in the same phonological environments as the [r] allophone of /d/, namely everywhere except word-initially and immediately following a nasal stop [m] or [ŋ]. However, after [n] the spirantized allophone [ɣ] occurs (usually with an intervening schwa). Examples of the stop realization [g] are given in (801) and of the fricative realization [ɣ] in (802).

As mentioned in §3.1.2.1.1.5 above, the velar stops /k/ and /g/ both have an obligatory palatal offglide [j] when in word-initial position and followed by a non-low front vowel ([i,ɪ,e,ɛ] in all their nasality and length variants). In medial positions this offglide is optional and sounds weaker than in initial position. Thus, in *tĩŋgii* 'flies' the realization [tĩŋgjii] occurs alongside more usual [tĩŋgii].

One realization of (presumably) /g/ in loan-words has glide insertion, but is not spirantized: the sequence [gj] in words like [raɡjo] 'radio'.

Such medial offglides are relatively rare with /g/ because this stop is often spirantized to [ɣ], where no palatal offglide is possible. Also, perhaps contrary to expectation, no voiced palatal fricative ever occurs in place of [ɣ] in words like [jiɣei] 'smoke' or [weɣi] 'wet!').

(801)   *Realizations of /g/ as phonetic [g] or [gj]*

| initial | gloss | medial | gloss |
|---------|-------|--------|-------|
| gatɛ | 'inner yard' | dɪŋgɛtam | 'flee' |
| gʌrʌm | 'rotate' | haraŋgam | 'stroke' |
| gjɛbam | 'pound' | hɔ̃ŋgam | 'show' |
| gjẽnɛ | 'celebration' | komgu | 'kind of tree' |
| gjete | 'forked stick' | kuromgʌ | 'flying squirrel' |
| gjɪram | 'judge' | leŋgem | 'shadow' |
| gjinʌm | 'mix' | teŋgam | 'accompany' |

| initial | gloss | medial | gloss |
|---------|-------|--------|-------|
| gɔmam | 'chase' | zãŋgam | 'take' |
| gote | 'stream' | zemgu | 'right' (≠wrong) |
| gʊlɔ | 'leather bag' | zoŋgre | 'wing' |
| gulle | 'large drum' | | |
| gũmbʌm | 'be missing' | | |

(802) *Realizations of /g/ as phonetic [ɣ]*

| intervocalic | gloss | other medial | gloss |
|--------------|-------|--------------|-------|
| dʊɣam | 'leave' | bɔrəɣa | 'slave' |
| diɣʌm | 'sow' | bʊɣənɛ | 'shoulders' |
| jɔɣʊ | 'jaw' | dɛɣrɛ | 'accusation' |
| jaɣaɪ | 'freshness' | dɛrɣa | 'hill' |
| jiɣei | 'smoke' | ɪh̃ĩndəɣʊ | '2nd' |
| liɣetʌm | 'uncover' | jɔ̃ɣfaa | 'milk' (PROG.) |
| loɣomde | 'camel' | kɔɣsɔŋ | 'lighter' |
| poɣu | 'claw' | lembəɣʌ | 'bird' |
| sɔɣɔtam | 'unlock' | zeɣni | 'lice' |
| zuɣo | 'tail' | zoɣto | 'scoop' |
| | | h̃ɔ̃nəɣa | 'dance' |
| | | jẽĩnəɣʊ | 'trap' |

There exists just one word with a strange phonetic shape, namely [gɪgaarɛ], PL. [gɪgaaja] 'vulture', where the fricative medial realization [ɣ] does not occur. I do not know the origin of this word, but suspect that it is a loan or a compound.

### 3.1.2.1.2 Fricatives

Fricatives exist 'phonemically' only at the labio-dental and apico-alveolar places of articulation, as shown in (803); the phonetic voiced dorso-velar fricative [ɣ] occurs only as an allophone of the stop /g/ in certain environments (cf. §3.1.2.1.1.6 above). At each of the two places of articulation there is both a voiceless and a voiced fricative.

(803)  *The fricatives*

|  | labio-<br>labial | labio-<br>dental | apico-<br>alveolar | dorso-<br>palatal | dorso-<br>velar | glottal |
|---|---|---|---|---|---|---|
| *voiceless fricative* |  | f | s |  |  |  |
| *voiced fricative* |  | v | z |  |  |  |

The phonetic realization of the fricatives is invariant: /f/ always appears as [f], /s/ as [s], /v/ as [v] and /z/ as [z].

The voiceless fricatives /f/ and /s/ occur freely in word-initial and medial positions, although there are few intervocalic /f/'s that are not preceded by a morpheme boundary.[8] Examples are given in (804) and (805) respectively.

(804)  *Realizations of /f/ (always as phonetic [f])*

| *initial* | *gloss* | *inter-<br>vocalic*[8] | *gloss* | *other<br>medial* | *gloss* |
|---|---|---|---|---|---|
| faram | 'advance' | bafaa | 'lie' (PROG.) | bɔŋfɛ | 'stake' |
| faɪ | 'porridge' | bɔfɪ | 'holes' | dɔfrɛ | 'God' |
| fekʊ | 'tree' | dɔfia | 'gods' | fɔfrɛ | 'leaf' |
| fɛŋam | 'leave' | hɪfaa | 'stand' (PROG.) | halfɪ | 'hangars' |
| feɣetʌm | 'revive' | hoifʌ | 'sleeping place' | h̃ɔɣfaa | 'bring' (PROG.) |
| fɪrɛ | 'sun' | jafɔ | 'walker' | sɪɣfɔ | 'quiet' |
| fiɣʌm | 'bury' | kifeŋʌ | 'small calabash' | saŋfɛ | 'rib' |
| fɔrʊ | 'belly' | sʊɪfɛ | 'grasshopper' | sayfaa | 'crouch' (PROG.) |
| fɔfrɛ | 'leaf' | tife | 'elephant' | wɔfrɛ | 'thorn-bush' |
| follo | 'friend' | tɔfa | 'hearth' | w̃ɔɛfɛ | 'grass' |
| fʊrʊ | 'antelope' | tɔfɔlam | 'cook' | wufəɣʌ | 'hedgehog' |
| furo | 'trail' | wufʌm | 'borrow' | jafəba | 'walkers' |

(805)  *Realizations of /s/ (always as phonetic [s])*

| *initial* | *gloss* | *intervocalic* | *gloss* | *other medial* | *gloss* |
|---|---|---|---|---|---|
| saŋfɛ | 'rib' | dɛɪsam | 'be able' | baŋsʊ | 'spear' |
| sã | 'tomorrow' | dɛ̃sam | 'draw' | bɔŋsʌm | 'love' |
| sɛndɛ | 'altar' | dɔɪsam | 'lengthen' | daɣsam | 'add' |
| sɛ̃btam | 'split' | fʊsam | 'move' | demsəre | 'ankle' |
| seyre | 'name' | hasʊ | 'brooms' | dubsʌm | 'respect' |
| sɪbam | 'die' | h̃ɛ̃sam | 'go away' | halsam | 'slide' |
| sɪɣtam | 'be quiet' | jɪsam | 'draw' | h̃ɛ̃msam | 'meet' |
| sɔɣɔlam | 'lock' | jisʌm | 'suffice' | hibsʌm | 'fill' |

| initial | gloss | intervocalic | gloss | other medial | gloss |
|---|---|---|---|---|---|
| sɔmdɛ | 'red' | kʊsa | 'darling' | h͂ɔsəɣa | 'well' |
| sɔ̃sam | 'redden' | kesem | 'much' | jiɣsʌm | 'lean' |
| sɔ̃ɔnɛ | 'period' | pesu | 'sheep' | kɔɣsɔŋ | 'lighter' |
| soŋgʌm | 'receive' | posʌm | 'request' | tobsʌm | 'point' |
| sʊɪfɛ | 'grasshopper' | tɔsam | 'pick up' | zɪɣamsam | 'dirty' |
| subre | 'pot' | zãsam | 'lift up' | zimsʌm | 'extinguish' |

The voiced fricatives, on the other hand, are quite rare. /z/ occurs frequently word-initially, but word-initial /v/ occurs only in 9 words in my dictionary, of which at least one, *vĩõɣʊ* 'owl' is an obvious Mòoré loan. The rest are all given in (806). Medially, the voiced fricatives occur only in compounds (where they are word initial) or in loans, therefore (806) contains examples of word-initial /v/ and /z/ only.

(806)  *Realizations of initial /v/ (always as phonetic [v]) and initial /z/ (always as phonetic [z])*

| /v/ | gloss | /z/ | gloss |
|---|---|---|---|
| vabalam | 'hit' | zaabɪ | 'bad' |
| vaɣa | 'dog' | zaɣamam | 'stir' |
| varam | 'flour' | zɛŋdɛ | 'upper arm' |
| vɛŋa | 'rain' | zeɣre | 'rag' |
| verʌm | 'raise' | zɪɣam | 'ask' |
| vɪrɛ | 'altar' | zimʌm | 'extinguish' |
| viŋgʌm | 'turn' | zɔŋgam | 'overtake' |
| vĩʊ | 'wound' | zoɣto | 'scoop' |
| | | zʊbam | 'burn' |
| | | zuɣʌm | 'rinse' |

### 3.1.2.1.3 Nasal stops

The nasal stops of Koromfe occur at the same places of articulation as the (voiced and voiceless) oral stops (cf. §3.1.2.1.1 above). Here only the 'non-syllabic' nasal stops are described; see §3.1.2.2.2.1 on the 'syllabic' nasals.

(807)  *The non-nasal stops (plosives)*

| | labio-labial | labio-dental | apico-alveolar | dorso-palatal | dorso-velar | glottal |
|---|---|---|---|---|---|---|
| nasal stop | m | | n | | ŋ | |

The nasal stops are always realized in the same way in every phonological environment, namely /m/ as [m], /n/ as [n] and /ŋ/ as [ŋ]. They are always fully voiced, even when they occur finally (including phrase-finally). The velar nasal /ŋ/ does not occur word-initially (except when 'syllabic' — cf. §3.1.2.2.2.1 below). All three nasals occur word-finally (including phrase-finally), but the occurrence of /n/ is highly restricted: it occurs only on phonetically monosyllabic UNMARKED forms of verbs (cf. the examples in (810) below). Both /m/ and /n/ occur as geminates,[9] but /ŋ/ does not. Where it could be expected morphologically, it seems to be simplified to a single phonetic [ŋ] (cf. §3.3.1.5 below).

Examples of the non-syllabic nasal stops in all relevant phonological environments are given in (808)–(812).

(808)    *Initial and final realizations of /m/ (always as phonetic [m])*

| initial | gloss | final | gloss |
|---------|-------|-------|-------|
| məkɔ | 'I' | doyom | 'cut!' |
| mayalam | 'measure' | dɔ̃m | 'bite!' |
| mɛndɛ | 'combat group' | gɔm | 'pursue' |
| mɛ̃ŋam | 'remain' | gɔɔm | 'go back' |
| minʌm | 'submerge' | hɛ̃m | 'meet!' |
| mɔtɔka | 'lorry'[10] | kesem | 'much' |
| mɔ̃ | 'also' | ndom | 'one' |
| mɔ̃ɣsam | 'suck' | tim | 'fight!' |
| mũi | 'rice' | tɔ̃m | 'walk' |

(809)    *Medial realizations of /m/ (always as phonetic [m])*

| intervocalic (single) | gloss | intervocalic (geminate)[11] | gloss | other medial | gloss |
|----|----|----|----|----|----|
| bɔmɛ | 'stakes' | dammɛ | 'sauce' | demsəre | 'ankle' |
| doyomʌm | 'cut' | dummʌ | 'knee' | dombəya | 'bit' |
| doma | 'lions' | ǰɛ̃mmã | 'tooth' | domdɛ | 'lion' |
| gilemʌm | 'walk' | kɛmmɔ̃ | 'old' | hamnɛ | 'fire' |
| haŋsamam | 'arrange' | | | ǰɛ̃mmənɛ | 'tooth' |
| hɛ̃mam | 'meet' | | | homsʌm | 'heat' |
| homoi | 'heat' | | | kɔsəma | 'hundreds' |
| mɔ̃mam | 'laugh' | | | kʊməŋa | 'short' |
| nɛnɛmam | 'shout' | | | sɔ̃mfɪ | 'deaths' |
| nʊmɪ | 'millstones' | | | zemgu | 'right' (≠wrong) |
| zimʌm | 'extinguish' | | | zĩnəmʌ̃ | 'next year' |

389

(810)  *Initial and final realizations of /n/ (always as phonetic [n])*

| initial | gloss | final | gloss |
|---------|-------|-------|-------|
| nakɔ | 'you (pl.)' | bɔn | 'harvest!' |
| nãnam | 'congratulate' | dan | 'lick!' |
| nɛŋ | 'thus' | dɛ̃n | 'pull!' |
| nɛ̃mmɔ̃ | 'meat' | hen | 'spread out!' |
| nɪhem | 'urine' | kãn | 'make a detour!' |
| nɪbəɣʌ | 'grandchild' | kon | 'put!' |
| niilei | 'see' | kɔ̃n | 'pick up!' |
| nɔɣsam | 'pinch' | min | 'submerge!' |
| nɔ̃ŋa | 'grease' | pɔ̃n | 'shave!' |
| nʊŋgʊ | 'millstone' | w̃ũn | 'go home' |

(811)  *Medial realizations of /n/ (always as phonetic [n])*

| intervocalic (single) | gloss | intervocalic (geminate)[12] | gloss | other medial | gloss |
|-----------------------|-------|-----------------------------|-------|--------------|-------|
| bana | 'matern. uncle' | bɛnna | 'men' | bɛnnəŋa | 'backside' |
| bɛnam | 'come' | bɛnnɛ̃ɛ̃ | 'manhood' | bɛnnənɛ | 'backsides' |
| bɪna | 'hearts' | kanna | 'bitter' | bɪndɛ | 'heart' |
| buno | 'thief' | w̃ɛnnam | 'plug' | bʊyənɛ | 'shoulders' |
| bɔ̃nɔ̃ŋ | 'goat' | | | dĩŋna | 'ears' |
| bĩnĩŋ | 'black' | | | gondrəbʌ | 'passer-by' |
| minʌm | 'submerge' | | | hamnɛ | 'fire' |
| pɔ̃nam | 'shave' | | | j̃ãntrɛ | 'kind of grass' |
| seno | 'beautiful' | | | j̃ɛ̃ĩnəyʊ | 'trap' |
| sɔ̃ɔ̃nɛ | 'period' | | | j̃ɛ̃nəfe | 'fish' |
| w̃ũnʌm | 'go home' | | | z̃ĩnəmʌ̃ | 'next year' |

(812)  *Realizations of /ŋ/ (always as phonetic [ŋ])*

| inter-vocalic | gloss | other medial | gloss | final | gloss |
|---------------|-------|--------------|-------|-------|-------|
| boŋoi | 'love' | baŋde | 'noon' | bĩnĩŋ | 'black' |
| fɛ̃ŋam | 'leave over' | baŋsʊ | 'spear' | bondɔŋ | 'mortar' |
| fɔ̃ŋɔtam | 'rest' | bãŋgʊ | 'circumcision' | bɔ̃nɔ̃ŋ | 'goat' |
| gaŋam | 'refuse' | dĩŋde | 'ear' | dãŋ | 'house' |
| j̃ãŋaɪ | 'similarity' | dĩŋna | 'ears' | feleŋ | 'new' |
| nɛŋɛtam | 'oblige' | doŋfe | 'snake' | kotoŋ | 'chest' |
| paŋam | 'roast' | haŋsam | 'arrange' | pɪlaŋ | 'moon' |

| inter-vocalic | gloss | other medial | gloss | final | gloss |
|---|---|---|---|---|---|
| sɛ̃ŋa | 'backsides' | tĩŋgfe | 'fly' | toroŋ | 'pipe' |
| toŋɔɪ | 'depth' | w̃ãŋkatɪ | 'moment' | w̃ãnãŋ | 'spotted' |
| zɛŋa | 'upper arm' | w̃ũmɘŋʌ | 'deaf' | zãŋ | 'take' |

### 3.1.2.1.4 Liquids

Although few in number, the liquids present some subtle problems of analysis.

(813)   *The liquids*

|  | labio-labial | labio-dental | apico-alveolar | dorso-palatal | dorso-velar | glottal |
|---|---|---|---|---|---|---|
| *tap* |  |  | (ɾ) |  |  |  |
| *lateral approximant* |  |  | l |  |  |  |

The phonetic apico-alveolar tap [ɾ] is a realization of the segment /d/ in all positions except word-initially, where it must be considered an independent 'phoneme' /r/ in the three loan-words (comprising 6 morphological words) in which it occurs, since in those words it cannot be pronounced as [d]. The existence of initial [r] in Koromfe is probably facilitated by fact that Mòoré has an initial [r] as a free and quite common variant of [d] (i.e. a realization of /d/). All three of the [r]-initial words in my corpus are given in (814) — for all other phonetic [ɾ]'s, see §3.1.2.1.1.4 above.

(814)   *Loan-words with word-initial [r]*

| word | gloss |
|---|---|
| raqjo | 'radio' |
| raqjofi | 'radios' |
| raqjoma | 'radios' |
| rĩjɔ̃ | 'spoke (of a bicycle)' |
| rĩjɔ̃fɪ | 'spokes (of a bicycle)' |
| rʊba | 'ink' |

The apico-alveolar lateral approximant /l/, on the other hand, is a normal native segment of the language. Its major allophone is phonetic [l], which occurs word-initially, medially and finally (though only in phonetic monosyllables in native vocabulary).[13] There also exist geminate [ll]'s,

always located after the first stem nucleus. Examples of the realization of /l/ as [l] are given in (815)–(816).

(815)   *Initial and final realizations of /l/ (always as phonetic [l])*

| initial | gloss | final | gloss |
|---------|-------|-------|-------|
| la | 'and' | dol | 'sell' |
| lɛbtam | 'withdraw' | gal | 'have plenty' |
| leŋgem | 'shadow' | gel | 'know' |
| liɣʌm | 'cover' | gʊl | 'lean' |
| lɔɣtam | 'break' | hal | 'possess' |
| lɔ̃ŋgrɛ | 'shoe' | hʊl | 'give birth' |
| lʊmdɛ | 'whip' | sol | 'fall' |
| luɣu | 'roof' | wɔl | 'work' |
| luu | 'intestine' | wol | 'quarrel' |

(816)   *Medial realizations of /l/ as phonetic [l]*

| intervocalic (geminate) | gloss | other medial | gloss | intervocalic (simple) | gloss |
|-------------------------|-------|--------------|-------|------------------------|-------|
| bollʌu | 'windows' | bollre | 'window' | bɛla | 'backs' |
| bɛllam | 'fan' | fɛlaŋa | 'narrow' | bolʌm | 'say' |
| gɪllam | 'intercept' | fillaŋʌ | 'stick' | feleŋ | 'new' |
| hellʌm | 'fan' | halfaa | 'own' (PROG.) | hilo | 'voice' |
| jɪllam | 'milk' | halsam | 'slide' | jaɣalɪ | 'fresh' |
| sallaŋa | 'cloth' | kɛlɣam | 'roast' | jɪla | 'horns' |
| tollom | 'potash' | tuflei | 'existence' | kʊlɔ | 'body' |
| tullʌm | 'lower' | wolaɣʌ | 'combat' | wɔlɔmam | 'chat' |
| zullʌm | 'bow' | zɔmlɛɪ | 'want' | zelʌ | 'ridge' |

There exist two word patterns with a couple of words each, namely *gʊbəllɛ*, PL. *gʊbəla* 'pile of earth' and *poyolle*, PL. *poyolʌ* 'shell' (e.g. of peanuts), which contain a geminate [ll] in a position other than the normal one for geminates, which is immediately following the nucleus of the first syllable of the word stem. The second pattern may be a compound in origin.

Two other, very different realizations of /l/ are:

a)   as intervocalic [d] between the second and third phonetic nucleus[14] of a word when the preceding consonant is /l/ or /d/, shown in column a) of (817), and

b) as intervocalic [n] in one class of verbs (with the *-Vl* suffixoid) when the (first) stem vowel is nasal, shown in column b) of (817).

The relevant phonological processes are described in §3.4.1.2 (dissimilation) and §3.4.1.1.2.2 (nasalization) below; our present concern is only the distribution. The verb class with the suffix(oid) *-Vl* has phonetic [l] with all other stem shapes apart from those of the types presented in (817) where a) the first stem vowel is followed by [l] or [r], or b) the first stem vowel is followed by a nasal consonant.[15]

(817)   *Realizations of /l/ as phonetic [d] and [n] (always simple and in intervocalic position)*

| a) /l/ as [d] | gloss | b) /l/ as [n] | gloss |
|---|---|---|---|
| beledʌʌ | 'sell on foot' (PROG.) | dɔ̃mənɛ | 'hear' (PAST) |
| dɪledaa | 'feed' (PROG.) | fɔ̃ŋənɛ | 'rest' (PAST) |
| feredʌʌ | 'whistle' (PROG.) | hamənɛ | 'believe' (PAST) |
| giledʌʌ | 'walk' (PROG.) | hɔ̃ŋənɛ | 'have' (PAST) |
| kɛredaa | 'carry' (PROG.) | jɔ̃ŋənɛ | 'milk' (PAST) |
| korɔdaa | 'knot' (PROG.) | tɔŋənɛ | 'light' (PAST) |
| zaladaa | 'move' (PROG.) | zaŋənɛ | 'ask for' (PAST) |

## 3.1.2.1.5 Glides

Koromfe has the 3 glides given in (818), plus some marginal use of (what sounds like) a phonetic glottal stop. The last is used word-finally to chop off a vowel for special (extralinguistic) emphasis. Thus, for example, 'a huge house' can be rendered in Koromfe as [a dãŋ kebreʔ] with high tones on both vowels of [kebreʔ].

(818)   *The glides*

| | labio-labial | labio-dental | apico-alveolar | dorso-palatal | dorso-velar | glottal |
|---|---|---|---|---|---|---|
| oral glide | w | | | j | | h |

The place of articulation of the glide /w/ is probably better described in *Questionnaire* terminology as a labio-labial-cum-dorso-velar. It corresponds to the vowels [u] or [ʊ]. The dorso-palatal glide [j] corresponds to the vowels [i] or [ɪ]. The so-called glottal glide [h] is a voiceless version of the following vowel. The ATR quality of the neighbouring vowels is not audible within the glides.

### 3.1.2.1.5.1 Glides in initial position

All the glides occur word-initially, and all three have a nasal allophone
which occurs when the glide precedes a nasal vowel. In normal transcrip-
tions I have not taken the trouble to mark nasal [h̃]. Like nasal [w̃] (which
I have marked), it is almost inaudible. The nasal version of the palatal
glide, [j̃], on the other hand, has presented problems to previous research-
ers, because it has an optional stop variant [ɲ] in word-initial position,
especially in careful speech.[16] This has led people to assume (mistakenly)
the existence of a palatal nasal stop phoneme /n/ and even of further pala-
tal consonants. There are no palatal consonants in Koromfe apart from the
glide /j/.

Examples of the word-initial glides before oral vowels are given in
(819) below and before nasal vowels in (820).

(819)   *Initial realizations of the glides before oral vowels as [w], [j], [h]*[17]

| /w/ as [w] | gloss | /j/ as [j] | gloss | /h/ as [h] | gloss |
|---|---|---|---|---|---|
| wasi | 'much' | jabrɛ | 'walk' | haŋsam | 'arrange' |
| weyʌm | 'wet' | jɛbtam | 'pay' | hɛbam | 'introduce' |
| wɪlɛmam | 'lighten' | jelʌm | 'see' | hem | 'water' |
| wiletʌm | 'turn round' | jɪbrɛ | 'eye' | hɪtam | 'stop' |
| wɔfrɛ | 'thorn-bush' | jiɣei | 'smoke' | hibsʌm | 'fill' |
| wolle | 'foot' | jɔ | 'chief' | hɔndrɛ | 'hoe' |
| wobsam | 'vomit' | jomʌm | 'follow' | hoɣo | 'under' |
| wufəɣʌ | 'hedgehog' | jʊ | 'jump!' | hʊbtam | 'throw' |
|  |  |  |  | hulʌm | 'drip' |

(820)   *Initial realizations of the glides before nasal vowels as [w̃], [j̃]/[ɲ], [h̃]*

| /w/ as [w̃] | gloss | /j/ as [j̃] or [ɲ] | gloss | /h/ as [h̃] | gloss |
|---|---|---|---|---|---|
| w̃ãna | 'hands' | j̃ã / ɲã | 'mother' | h̃ãnãŋ | 'good' |
| w̃ɛ̃nnəŋa | 'plug' | j̃ɛ̃ŋsam / ɲɛ̃ŋsam | 'stand up' | h̃ɛ̃mam | 'meet' |
| w̃ɔ̃mdɛ | 'monkey' | j̃ĩniɲʌ / ɲĩniɲʌ | 'blind' | h̃ĩnʌ | 'kind of bush' |
| w̃ũməŋʌ | 'deaf' | j̃ɔ̃kam / ɲɔ̃kam | 'stab' | h̃ɔ̃ŋgam | 'show' |
|  |  | j̃ɔ̃ɔ̃ŋa / ɲɔ̃ɔ̃ŋa | 'small' | h̃õĩnɛ | 'worm' |
|  |  | j̃õ / ɲõ | 'head' | h̃ũ | 'kind of tree' |

### 3.1.2.1.5.1 Glides in non-initial positions

The glide /w/ occurs only in word-initial positions, with a single excep-
tion: *hʌwei* 'paternal aunt'.[18] The other glides, /j/ and /h/ occur medially,

though almost exclusively in two morphemes — the *-ja* plural of the *dɛ/a* class (after a vowel-final stem) and the *-hĩ* plural of the instrument nouns. This means that /j/ has both an oral [j] and a nasal [j̃] realization in medial (though syllable-initial) positions, while /h/ occurs only nasally (as [h̃]). Note that the positions where these glides occur are always syllable-initial (as the sole onset consonant). Examples are given in (821).

(821)   *Medial realizations of the glides /j/ and /h/*

| /j/ as [j] | gloss | /j/ as [j̃] | gloss | /h/ as [h̃] | gloss |
|---|---|---|---|---|---|
| dɔɔja | 'long' (PL.) | dãj̃ã | 'sticks' | dɔmməh̃ɛ̃ | 'drumsticks' |
| hojʌʌ | 'be lying' | h̃ɛ̃mɛ̃j̃ã | 'crocodiles' | j̃ɛ̃ɪ̃nəh̃ɛ̃ | 'traps' |
| sujo | 'guinea-fowls' | h̃õj̃ã | 'worms' | sumbotrəh̃ĩ | 'bottle openers' |
|  |  | tɔ̃mɔ̃j̃ã | 'large ants' | tufəh̃ɛ̃ | 'seats' |
|  |  |  |  | w̃ãɣrəh̃ɛ̃ | 'pencils' |

There is an ambiguity of phonological analysis concerning possible glides in final position. Is the final segment of words like [taʊ] 'water-hole' a vowel or a consonant? Phonetically there is only one syllable. Since only putative [w] and [j] are involved, and no contrasts between vowels and glides ever occur, I have decided (for lack of positive evidence to the contrary) that all such cases have a final vowel — in which case there are no final glides.

### 3.1.2.1.6 Others

There are no other non-syllabic segments in Koromfe.

### 3.1.2.2 Syllabics

The segments of Koromfe which can occupy a syllabic nucleus are the vowels and the syllabic nasals. No other type of segment (such as a liquid or a fricative) can occupy a syllable nucleus.

### 3.1.2.2.1 Vowels

The vowel system of Koromfe, as indeed the whole language, uses exclusively pulmonic egressive air. There is only normal voicing, and no breathy or creaky voice.

### 3.1.2.2.1.1 Monophthongs

There are 5 basic vowel 'colours', describable in articulatory terms by the tongue-body positions, given in §3.1.1.1 above and repeated here in (822). The back vowels all have accompanying lip rounding, the others have no lip rounding.

(822) *The basic vowel system of Koromfe — 5 short, lax oral monophthongs, plus a prosodically weak mid central schwa*

|        | front | central | back |
|--------|-------|---------|------|
| *high* | ɪ     |         | ʊ    |
| *mid*  | ε     | (ə)     | ɔ    |
| *low*  |       | a       |      |

The supernumerary 6th vowel, schwa ([ə]) is prosodically weak and colourless. It is never the vowel of a lexical word-stem, it is never long and never noticeably nasal or tense. Its occurrence is variable (depending on tempo and casualness). In fast, casual speech [ə] disappears almost entirely.[19] Schwa will not be further mentioned below. For terminological clarity, I refer to all other vowels except schwa as 'full' vowels.

There also exist (phonemically!) nasal variants[20] of each full vowel and a tense variant, with advanced tongue root (ATR) — also phonemic — of each of these, giving 20 full vowel qualities in all. Each of these 20 full vowels (except for accidentally missing [õõ]) can occur phonemically long (or better: geminated),[21] giving 39 possible full vocalic syllable nuclei, all of which are phonemically distinctive. These vowel qualities are summarized in (823) (again, repeated from §3.1.1.1 above).

(823) *The complete system of monophthongs in Koromfe — 39 full vowels,[22] plus a prosodically weak mid central schwa. (In each cell the oral vowels are in the top row and nasal in the bottom row, the short vowels are in the left half of the cell and the long vowels in the right half. The lax/tense or non-ATR/ATR variants are ordered in pairs, the first being lax and the second tense.)*

|        | front | central | back |
|--------|-------|---------|------|
| *high* | ɪ i ɪː iː | | ʊ u ʊː uː |
|        | ĩ ĩ ɪ̃ː ĩː | | ʊ̃ ũ ʊ̃ː ũː |
| *mid*  | ε e εː eː | (ə) | ɔ o ɔː oː |
|        | ε̃ ẽ ε̃ː ẽː | | ɔ̃ː õː ɔ̃ː *õː |
| *low*  | | a ʌ aː ʌː | |
|        | | ã ʌ̃ ãː ʌ̃ː | |

For completeness' sake, let me add that there is no distinction of voice quality (breathy or creaky voice) or any other distinction of vowel quality, even allophonically.

Only one of the monophthongs, namely /ʌ/, has any noticeable phonetic variation in its realization. This vowel, normally realized as low, tense central [ʌ], can optionally be realized as mid back tense [o] in final position of a word containing more than one phonetic syllable. Thus for example [lukʌ] 'cat' can optionally be pronounced [luko]. Since the inventory of morphemes with a final -a is small, this variant typically occurs with the -ga singular of the *ga/nɪ* 'diminutive' noun class and with the -a plural of the *dɛ/a* noun class. The -ba plural suffix of the 'human' class never seems to use this [o] variant — perhaps (though this is speculation) because of the labiality of its initial consonant *b*.

There is no word frame which would allow me to contrast every single vowel quality; the examples given in (824) below contrast the 5 basic vowel qualities in both their tense (ATR) and lax (non-ATR) versions. Tables (825)–(829) show the full range of contrasts for each of the basic qualities. Many of the forms given here are nothing like 'minimal' contrasts; this is due on the one hand to distributions of particular morphemes and on the other hand to the relative markedness of many of the vowels. Long vowels and the low tense vowel [ʌ] are rare in general; on the other hand, it would not surprise me if the missing vowel [õõ] turned up somewhere during the course of further research.

Note that due to vowel harmony (cf. §3.2.6.4 below) usually only the first nucleus of a word stem is phonologically fully distinctive and the quality of following nuclei within the word are partly or fully determined by the quality of the first nucleus. The examples given here therefore centre around the first vowel of the word.

(824)   *Vowel contrasts — the 5 basic colours, tense and lax*

| word | gloss | word | gloss |
|------|-------|------|-------|
| ɡaba | 'knives' | ɡini | 'mix!' |
| ɡʌbu | 'bang!' | ɡɔbʊ | 'dig!' |
| ɡɛbʊ | 'pound!' | ɡomʌu | 'remains' |
| ɡel | 'know!' | ɡʊba | 'ponds' |
| ɡɪba | 'hatchets' | ɡubo | 'pile up!' |

(825)   *Vowel contrasts — the A's in all variants*

| word | gloss | word | gloss |
|------|-------|------|-------|
| bana | 'maternal uncle' | baa | 'they + NEG.' |
| bʌndəbi | 'cousin' | boŋsrʌʌ | 'love' (PROG.)[23] |
| bãka | 'weeding' | bããda | 'ill, sick' |
| pʌ̃rsʌm | 'widen' | bʌ̃ʌ̃ni | 'health' |

(826)   *Vowel contrasts — the E's in all variants*

| word | gloss | word | gloss |
|------|-------|------|-------|
| kɛkʊ | 'field' | dɛɛm | 'eat' |
| keki | 'take!' | leem | 'forget' |
| kẽmam | 'turn' | jilẽẽsi | 'women's cries'[24] |
| tufəhẽ | 'benches'[25] | kjẽẽγa | 'blue' |

(827)   *Vowel contrasts — the I's in all variants*

| word | gloss | word | gloss |
|------|-------|------|-------|
| bɪndɛ | 'heart' | jɪɪba | 'chiefs' |
| bi | 'child' | kii | 'madness' |
| dĩ ŋdɛ | 'ear' | zĩĩ | 'last year' |
| bĩnĩŋ | 'black' | bĩĩŋʌ | 'child' (DIMIN.) |

(828)   *Vowel contrasts — the O's in all variants*

| word | gloss | word | gloss |
|------|-------|------|-------|
| dɔba | 'top' | dɔɔba | 'peasants' |
| dobo | 'trip up!' | doo | 'kind of tree' |
| dɔ̃ | 'dream!' | dɔ̃ɔ̃ŋa | 'dream' |
| doγomõ | 'cut' (DUR.)[26] | *õõ | (none)[27] |

(829)   *Vowel contrasts — the U's in all variants*

| word | gloss | word | gloss |
|------|-------|------|-------|
| tʊllɛ | 'middle' | gʊʊyʊ | 'club' |
| tulle | 'rear' | tuu | 'bush' |
| fõrɪ | 'marriage' | gõõγʊ | 'mushroom'[28] |
| w̃ũməŋʌ | 'deaf' | h̃ũũfi | 'kind of tree' (PL.) |

### 3.1.2.2.1.2 Diphthongs

The phonetic diphthongs of Koromfe are quite arbitrary combinations of the (short versions of the) monophthongs described above, although not

all logically possible combinations actually occur in my corpus, even across word boundaries. The words containing diphthongs are subject to the general phonological processes of the language: in particular, ATR harmony and nasalization. Thus diphthongs are, as a whole, either tense or lax, nasal or oral. As far as the relative sonority or 'syllabicity' of the parts of a diphthong are concerned, there is no obvious 'onglide' or 'offglide'. Even when the inherent sonority of the two parts of the diphthong are as different as [a] and [ɪ], the [ɪ] still sounds very vowel-like in a word such as [saɪ] 'separate', without any hiatus effect. Also, there is no tendency towards mutual phonetic assimilation of the two parts of a diphthong (as in Viennese German [frɔː] for /fraʊ/), although phonologically some word pairs look as if there was once a phonological process relating some monophthongs with diphthongs (e.g. [dɔɔrɛ] 'long' vs. [dɔɪsam] 'lengthen'; [dɔnda] '(be) good' vs. [dɔ̃ɪsam] 'be/make good'; the free variants [gɔɔnɛ] and [gɔɪnɛ] 'still'). Compare also the realization of [w̃ãɪ] 'grass' discussed below.

The high second part of a diphthong is often (but only optionally) lowered to mid if the first part is non-high, giving rise to word-pairs like [hoefʌ] / [hoifʌ] 'bed' (lit.: 'lying-place'), where the first variant is more casual and the second more careful. This process is particularly frequent with nasal diphthongs such as [tɔ̃ɛ̃] 'bees' (COLL.) from /tɔ̃+ɪ/.

There is no length distinction in the diphthongs (in contrast with Mòoré), and no additional vowel qualities appear in the diphthongs which are not present in the monophthongs, nor vice versa. Since diphthongs can arise at morpheme boundaries, it is profitable to examine which diphthongs occur within morphemes, and then to compare these with the 'secondary' diphthongs that have a morpheme boundary between their two vowels. (Note that phonetically there is no difference between these two types of diphthong.)

The diphthongs which I have found in single[29] lexical morphemes (i.e. word stems) in my corpus are given in (830).

(830)    *Diphthongs found in monomorphemic word stems*

| diphthong | example | morphs[30] | gloss |
|-----------|---------|-----------|-------|
| [aɪ] | haɪtam | haɪ+t+am | 'remember' |
| [ãɪ] | dãɪnɛ | dãɪ+nɛ | 'wood' |
| [aʊ] | taʊ | taʊ | 'quickly' |

| diphthong | example | morphs[30] | gloss |
|---|---|---|---|
| [ʌu] | kʌusʌm | kʌu+s+ʌm | 'cry' |
| [ɛɪ] | dɛɪsam | dɛɪ+s+am | 'be able' |
| [ẽ̄ɪ̄] | j̃ẽ̄ɪ̄nǝyʊ | j̃ẽ̄ɪ̄+n+gʊ | 'trap' |
| [ẽ̄ɔ̃] | sẽ̄ɔ̃ | sẽ̄ɔ̃ | 'drug' |
| [ɔɪ] | dɔɪsam | dɔɪ+s+am | 'lengthen' |
| [ɔ̃ɪ̃] | dɔ̃ɪ̃sam | dɔ̃ɪ̃+s+am | 'be good' |
| [oe] | hoefʌ | hoe+fʌ | 'bed' |
| [oi] | hoifʌ | hoi+fʌ | 'bed' |
| [ɔʊ] | bɔʊsam | bɔʊ+s+am | 'recover' |
| [ʊɪ] | hʊɪsam | hʊɪ+s+am | 'mock' |
| [ȭɪ̄] | dȭɪ̄ | dȭɪ̄ | 'this year' |
| [ũ̄ɪ̄] | dũ̄ɪ̄ne | dũ̄ɪ̄+ne | 'kind of nut' |

The clear pattern here is that the second part of the diphthong is a high vowel (optionally lowered in some contexts). However, there exist no diphthongs of the type /Vʊ/ where V is a mid or high front vowel. The missing tenseness and nasality variants are probably accidental gaps; in general, it is relatively rare for a vowel to be both tense and nasal.

Some of the morpheme-internal diphthongs in my corpus are found in suffixes but not in lexical stems; these are given in (831).

(831)  *Diphthongs found in suffixes but not across morpheme boundaries*

| diphthong | example | morphs | gloss |
|---|---|---|---|
| ɪa | dɛɣɪa | dɛg+ɪa | 'loads' |
| ĩ̄ã̄ | h̃ãnĩ̄ã̄ | h̃ãn+ĩ̄ã̄ | 'good' (PL.) |
| iʌ | debiʌ | deb+iʌ | 'tamtam' |
| ĩ̄ʌ̃ | b̃ĩnĩ̄ʌ̃ | b̃ĩn+ĩ̄ʌ̃ | 'black' (PL.) |
| ei | felei | fe+lɛɪ | 'existence' |

The diphthongs of the /aʊ/ and /ɪa/ type in suffixes occur only as (more or less optional) variants of the plural suffix -a of the *dɛ/a* noun class.

Although there is much overlap with the diphthongs found in lexical stems, the fairly wide range of diphthongs which arise at morpheme boundaries are given in (832). Note that most of these diphthongs are due to a relatively small number of suffixes. Also, although it might be expected to give rise to diphthongs with /a/ as their second part, the plural suffix -a of the *dɛ/a* noun class always occurs in its -*ja* variant after a

vowel-final stem, e.g. in [wɪrɛ], PL. [wɪja] 'rainy season' or [nɛ̃nɛ], PL. [nɛ̃jã] 'mouth'.

(832)    *Diphthongs found across morpheme boundaries*

| diphthong | example | morphs | gloss |
|---|---|---|---|
| aɛ | daɛ | da+ɛ | 'gained' |
| ãɛ̃ | tãɛ̃ | tã+ɛ | 'contradicted' |
| aɪ | jaɣaɪ | jaga+ɪ | 'freshness' |
| ãɪ̃ | dãɪ̃ | dã+ɪ | 'houses' |
| ãʊ̃ | h̃ãnãʊ̃ | hãnã+ʊ | 'good turn' |
| ɛʊ | mɛnəŋgɛʊ | ?? | 'dew'[31] |
| ɛ̃ʊ̃ | bɛ̃ʊ̃ | bɛ̃+ʊ | 'coming' |
| eu | jeu | je+ʊ | 'look' (SG.) |
| ɪʊ | dɪʊ | dɪ+ʊ | 'eating; food' |
| ĩʊ̃ | ṽĩʊ̃ | ṽĩ+ʊ | 'wound' |
| iu | kiu | ki+ʊ | 'calabashes' |
| ɔɛ | gɔɛ | gɔ+ɛ | 'went back' |
| ɔ̃ɛ̃ | dɔ̃ɛ̃ | dɔ̃ɪ̃+ɛ | 'joined' |
| ɔ̃ɪ̃ | tɔ̃nɔ̃ɪ̃ | tɔ̃nɔ̃+ɪ | 'skins' |
| ɔʊ | dɔʊ | dɔ+ʊ | 'animal' |
| ou | zoɣtou | zogto+ʊ | 'scoops' |
| ue | fue | fu+ɛ | 'drew' |
| ʊɪ | sʊɪ | sʊ+ɪ | 'grasshoppers' |
| ũĩ | mũĩ | mũ+i | 'rice' |

Two types of diphthong have a fairly wide range of free variants. In the first type, which occurs only in tense (ATR) words with final (harmonized) /iʌ/, the two phonetic variants, [ʌ] and [o], of the tense back vowel /ʌ/ (mentioned in §3.1.2.2.1.1 above) plus the optional lowering of the high vowel /i/ produce four phonetic variants of the word *beliʌ* 'children', namely:

[beliʌ] vs. [belio] vs. [beleʌ] vs. [beleo]

The second diphthong type involves nasal /ãɪ̃/ after a labial consonant: here two additional mid-vowel variants of the first part of the diphthong occur, e.g. [w̃ɛ̃ɪ̃] and [w̃ɔ̃ɪ̃] alongside [w̃ãɪ̃] 'grass'. It seems to be a general characteristic of Koromfe that the labial quality of a consonant (particularly word-initial /w/) is carried over into the following vowel, thus obscuring the distinction between /ɛ/, /a/ and /ɔ/. Compare [w̃ɔ̃ndɛ] (occasionally [w̃ãndɛ]), PL. [w̃ãna] 'hand'.[32]

### 3.1.2.2.2 Others

Apart from the 'syllabic' nasals dealt with immediately below, there are no other 'syllabic' segments in Koromfe (in particular, no liquid or fricative).

### 3.1.2.2.2.1 'Syllabic'[33] nasals

The syllabic nasal occurs only in phrase-initial (and therefore word-initial) position. Several morphemes such as [ŋgo] 'not be/have' have such a syllabic nasal, but the 2nd person singular proclitic personal pronoun is special in that it displays a wide range of phonetic variants due to assimilation, as exemplified in (833) (adapted from Rennison, 1993).

(833) *Phonological variants of the 2nd person singular proclitic personal pronoun (here in subject position, followed by a verb)*[34]

| pron. & verb | gloss | pron. & verb | gloss |
|---|---|---|---|
| m̩ pa | 'you give' | n̩ zaŋa | 'you ask for' |
| m̩ bakɪ | 'you do' | n̩ nasɪ | 'you spread out' |
| ɱ̍ farɪ | 'you go forward' | n̩ labʊ | 'you group' |
| ɱ̍ vaba | 'you hit' | ŋ kam | 'you press' |
| m̩ man | 'you get used to' | ŋ gjɛbʊ | 'you pound' |
| w̃ warɣɪ | 'you tire' | ŋ gʌbu | 'you bang' |
| w̃ w̃ãŋ | 'you break' | ɟ̍ ja | 'you go' |
| n̩ ta | 'you shoot' | ŋ harɪ | 'you touch' |
| n̩ da | 'you win' | ɟ̍ ɟãŋ | 'you resemble' |
| n̩ sam | 'you wash' | | |

   Unlike English or German, the syllabic nasals of Koromfe cannot be derived from any combination of 'schwa + nasal' or 'nasal + schwa', as can be seen from (834), where the phonetic sequence [mə] is invariant.[35] For a fuller explication of the syllabic nasals in a Government Phonology framework, see Rennison (1993).

(834) *Phonological variants of the 1st person singular proclitic personal pronoun (in subject position, followed by the same verb as in (833)*

| pron. & verb | gloss | pron. & verb | gloss |
|---|---|---|---|
| mə pa | 'I give' | mə zaŋa | 'I ask for' |
| mə bakɪ | 'I do' | mə nasɪ | 'I spread out' |
| mə farɪ | 'I go forward' | mə labʊ | 'I group' |
| mə vaba | 'I hit' | mə kam | 'I press' |
| mə man | 'I get used to' | mə gjɛbʊ | 'I pound' |

| pron. & verb | gloss | pron. & verb | gloss |
|---|---|---|---|
| mə warɣɪ | 'I tire' | mə gʌbu | 'I bang' |
| mə w̃ãŋ | 'I break' | mə ja | 'I go' |
| mə ta | 'I shoot' | mə harɪ | 'I touch' |
| mə da | 'I win' | mə j̃ãŋ | 'I resemble' |
| mə sam | 'I wash' | | |

For our present descriptive purposes suffice it to note that:

- A syllabic nasal is always homorganic with the following consonant;
- If the syllabic nasal is preceded by a vowel (and hence no longer phrase-initial) it ceases to be 'syllabic' and is a normal nasal stop, although it remains homorganic with the following consonant.

### 3.1.2.3 Segments which only occur in recognizable loan-words

Words which are clearly loans have been omitted in the preceding part of §3.1.2, except where expressly stated. The most obvious phonetic fact attributable to loan-words is the presence of 3 words with word-initial [r] — a sound which is completely absent in this position in native vocabulary.

Mòoré loan words (including especially diphthongs — even long ones — that are not found in native Koromfe vocabulary) can be integrated quite easily into Koromfe sentences; indeed apart from stylistic criteria (e.g. purism) I know of no Mòoré noun or nominal adjective that cannot in principle be used in this way. However, the phonetic and phonological system of Mòoré is quite comparable to Koromfe (apart from the diphthongs and tones).

With French loans either a) considerable adaptation takes place, producing Koromfe phonetics, or b) phonetic anomalies such as front rounded vowels (e.g. [dizœrɪ] 'ten o'clock' from Fr. *dix heures*) in the speech of some (especially more educated) speakers.

### 3.1.2.4 Restrictions on the occurrence of segments in particular word classes

The restrictions of particular sounds to word classes are, with one phonological exception to be discussed immediately below, the effect of the restricted number of morphemes occurring in particular positions: thus the syllabic nasals are largely (though not completely) restricted to the 2nd

403

person singular proclitic pronoun, and many of the inter-morphemic ('secondary') diphthongs occur in conjunction with only a handful of morphemes.

A more far-reaching restriction on the occurrence of allophones is that which can be observed with the assimilation of /d/ described in §3.4.1.1.2 below. There, the verbs have the regular assimilation of /d/ to [m], while nouns never have it; I also assume that in a number of cases verbs have an assimilation of /d/ to [ŋ], although its effects are erased by a 'subsequent' simplification of two consecutive ŋ's to one. An example is [boŋʌʌ], the PROGRESSIVE form from the stem /boŋ/ 'love' with the suffix /daa/. The 'derivation' would therefore be /boŋ+daa/ → /boŋŋaa/ → /boŋaa/ (→ [boŋʌʌ]).

## 3.2 Phonotactics

### 3.2.1 Consonants

#### *3.2.1.1 Word-final consonants*

Word-final consonants are quite common in Koromfe in phrase-medial positions because vowels are optionally lost there word-finally, and the process of phrase-final filling does not apply (cf. §3.2.6.4.2.2 below). In **phrase**-final position,[36] on the other hand, consonants are rare because vowel apocope does not occur. The rest of this section and its sub-sections will be devoted to the phrase-final word-final consonants.

These word-final consonants are severely restricted, both in type and permitted position within syllable structure. Only [m,n,ŋ,l] ever appear, of which [n] is rare. A word-final sequence of two or more consonants is impossible.

#### *3.2.1.1.1 Restrictions on word-final consonants*

The restrictions on phrase-final word-final consonants are summarized in (835) (adapted from Rennison, 1993).

(835)   *The contexts of phrase-final consonants*

|   | Preceding contexts | Comments |
|---|---|---|
| m | a, ʌ, aː, ãː, ɛ, ɛː, ɛ̃ː, e, eː, i, ɔ, ɔː, õ, õː, o, oː | High frequency due to the morpheme -m (noun class suffix) and fusions of CV stems with the infinitive morpheme -*am*/-*ʌm*. No restriction to a particular syllable. After the 3rd nucleus the preceding vowel is always low. |
| n | a, ã, ɛ̃, e, i, õ, o, ũ | Low frequency. Preponderantly with nasal vowels; preceding nucleus must be 1st nucleus of word stem. |
| ŋ | a, ã, ɛ, ɛ̃, e, i, ĩ, ɔ, õ, o | Low frequency. Occurs mainly after 1st nucleus of stem, but also after 2nd nucleus (only as reflex of noun class suffix -*gʊ*/-*gu*). |
| l | a, ɛ, e, ɔ, o, ʊ | Low frequency. No nasal vowels, and only a restricted set of short oral vowels, which must be the 1st nucleus of the word stem. |

In phrase-internal word-final positions a much wider variety of consonants is possible; all consonants occur except the voiced fricatives [v,z], the glides [h,w,j][37] and, for me surprisingly, the voiceless stop [p].

### 3.2.1.1.1.1 Word-final [m]

The occurrence of word-final [m] is the least restricted of all the word-final consonants. It can occur after the nucleus of any phonetic syllable of a word (up to three, the maximum in simplex words), as can be seen in (836) (partly taken from §3.1.2.1.3 above).

(836)    *Word-final occurrences of phonetic [m]*

| word (monosyllabic) | gloss | word (polysyllabic) | gloss |
|---|---|---|---|
| dɔ̃m | 'bite!' | doɣom | 'cut!' |
| gɔm | 'pursue' | doɣomam | 'cut' |
| gɔɔm | 'go back' | kesem | 'much' |
| h̃ɛ̃m | 'meet!' | haŋsam | 'arrange!' |
| ndom | 'one' | haŋsamam | 'arrange' |
| tim | 'fight!' | wɪlɛm | 'lighten!' |
| tɔ̃ɔm | 'walk' | wɪlɛmam | 'lighten' |

Of the 'preceding contexts' of [m] given in (835) above, the long vowels occur only when the word is phonetically monosyllabic.

When [m] follows the second phonetic full-vowel nucleus of the word, only the mid and low vowels occur (i.e. a word like *[timim] is impossible), and when [m] follows the third phonetic full-vowel nucleus of the word only the short low vowels occur as the preceding context.

### 3.2.1.1.1.2 Word-final [n]

Word-final [n] is the most restricted of the word-final consonants. It can occur only after the first nucleus of a word, and that word must be an UNMARKED verb form.[38] All the examples of word-final [n] in my corpus are given in (837) below. Moreover, at least one verb with a stem-final /n/ never occurs with a phonetic word-final [n], but instead undergoes 'phrase-final filling' with an 'epenthetic' vowel (cf. §3.2.6.4.2.2 below), namely [gini] 'mix!'.

(837)    *Word-final occurrences of phonetic [n] (all the words in my corpus)*

| word | gloss | word | gloss |
|---|---|---|---|
| bɔ̃n | 'harvest!' | kɔ̃n | 'pick up!' |
| dan | 'lick!' | man | 'accustom!' |
| dɛ̃n | 'pull!' | min | 'submerge!' |

| word | gloss | word | gloss |
|------|-------|------|-------|
| ɡan | 'bandage!' | nɔ̃n | 'skin!' |
| hen | 'spread out!' | pɛ̃n | 'plait (hair)!' |
| h̃ɛn | 'sew!' | pɔ̃n | 'shave!' |
| h̃ɔn | 'amuse yourself!' | tɛn | 'cook!' |
| kãn | 'make a detour!' | w̃ɛn | 'plait (rope)!' |
| ken | 'strangle!' | w̃ũn | 'return home!' |
| kon | 'put!' | | |

Since it is clear from other phonological contexts that /l/ nasalizes to /n/ after a nasal vowel, and in view of the lack of monosyllable-final [l] after a nasal vowel, I suspect that the historical source of some of the words in (837) is an /l/. However, this putative source has no effect on any of the phonetic realizations in the current language, i.e. these segments behave phonologically as if they were all /n/'s.

### 3.2.1.1.1.3 Word-final [ŋ]

The relative frequency of word-final [ŋ] is intermediate between that of [m] and [n]. Both monosyllabic and disyllabic forms occur, although the latter are exclusively nouns of the *ɡʊ/ɪ* class with the nasalized [ŋ] variant of the *ɡʊ* singular suffix. The monosyllables have several sources.

(838)   *Word-final occurrences of phonetic [ŋ]*

| word (monosyllabic) | gloss | word (disyllabic) | gloss |
|---------------------|-------|-------------------|-------|
| dãŋ | 'house' | bĩnĩŋ | 'black' |
| fɛ̃ŋ | 'leave over' | bɔndɔŋ | 'mortar' |
| ɡaŋ | 'refuse' | bɔ̃nɔ̃ŋ | 'goat' |
| j̃ãŋ | 'resemble' | feleŋ | 'new' |
| kãŋ | 'thing' | kotoŋ | 'chest' |
| mɛ̃ŋ | 'remain' | pɪlaŋ | 'moon' |
| soŋ | 'receive' | toroŋ | 'pipe' |
| zãŋ | 'take' | w̃ãnãŋ | 'spotted' |

### 3.2.1.2 Word-initial consonants

All consonants occur word-initially, but the velar nasal [ŋ] cannot occur (in its non-syllabic variant) in phrase-initial position.

### 3.2.1.2.1 Restrictions on word-initial consonants

Any non-syllabic consonant can occur in word or phrase-initial position in Koromfe, with the exception of the velar nasal [ŋ] in phrase-initial or pre-vocalic position. All syllabic nasals occur in phrase-initial position (and nowhere else) — cf. §3.1.2.2.2.1 above.

### 3.2.1.3 Word-medial consonants

The consonants which occur word-medially within morphemes of native vocabulary have the same restrictions as the word-final (phrase-medial) consonants, i.e. the voiced fricatives [v,z] and the glides [h,w,j] and, the voiceless stop [p] do not occur.

On word-medial geminates, see §3.2.2.1.3 below.

### 3.2.2.1 Consonant clusters

Koromfe has no true consonant clusters in the sense of a branching phonological constituent (of syllable structure) which contains two consonants. However, phonetic sequences of more than one consonant do occur. The rest of this section and its sub-sections therefore describes these phonetic consonant sequences. Beware: in fast and casual speech 'consonant + schwa' sequences are pronounced without schwa, thus giving rise to phonetic 'consonant + consonant' sequences like [dbi] from [də bi] 'your child'. Such sequences occur only with the morphemes /mə/ 'I, my' and /də/ '(s)he, his, her'.

### 3.2.2.1.1 Word-initial consonant clusters

In phrase-initial position there is never a sequence of more than one consonant. Phrase-internally there exist sequences of 'nasal plus homorganic consonant' in cases where the phrase-initial realization would have a syllabic nasal. Thus phrase-initial [m̩ bi] 'your child' is realized with a syllabic [m̩] in (839) but with a non-syllabic [m] in sentence (840).[39]

(839)  m̩            bi            vere          hem          ni
       PRON. 2SG.   child + SG.   raise + PAST  water + SG.  in (POSTPOS.)

       də                         zɔmmɔ̃        də                        kebsu
       PRON. 3SG. HUM.            want + DUR.   PRON. 3SG. HUM.           grow

       'If your child is raised in water, he will grow.'

(840) la   bɛl   lɛ   m          bi          hoŋ         məkɔ        ja
      and  bring thus PRON. 2SG. child + SG. DET. HUM. SG. PRON. 1SG. go

      veri  a    hem   ni
      raise ART. water in (POSTPOS.)

      '... and so bring your child and I'll go and raise him in the water.'

Loan words with a word-initial consonant cluster in the source language are simplified in Koromfe, thus for example French [drapo] *drapeau* 'flag' is taken over as Koromfe [darpo] or [darəpo].

### 3.2.2.1.2 *Word-final consonant clusters*

There are no word-final consonant clusters in any shape or form, even in loans.

### 3.2.2.1.3 *Word-medial consonant clusters*

There is a large variety of word-medial phonetic consonant sequences, which is restricted only by the number and phonological shape of the morphemes occurring within words (see §3.2.2.3 below).

One restriction is particularly interesting: geminate consonants (i.e. [mm], [nn] and [ll]), which are quite common in the language, only ever occur after the first phonetic full vowel of a word. This restriction also applies to the voiceless (fortis) stops [p,t,k] when they are the outcome of lexical geminate voiced (lenis) stops /bb/, /dd/ and /gg/ respectively, even though phonetically these segments are not long.

Two exceptions to this generalization exist:

a) two words in my corpus, which I suspect may be compounds, with an opaque CV first member: [piselle], PL. [piselʌu] 'pile of faeces' and [poɣolle], PL. [poɣolʌ] 'bark' (cf. [poɣu], PL. [poi] 'shell, bark');

b) one word in my corpus has geminate [ll]'s following a voiced stop, namely [gʊbəllɛ], PL. [gʊbəla] 'mound'.

### 3.2.2.2 *Descriptions of the occurring consonant clusters*

### 3.2.2.2.1 *Word-initial consonant clusters*

The few occurring word-initial (phrase-medial) consonant clusters are described in §3.2.2.1.1 above.

### 3.2.2.2.2 Word-final consonant clusters

Word-final consonant clusters do not exist.

### 3.2.2.3 Word-medial consonant clusters

Across word-internal morpheme boundaries, sequences of phonetic consonants occur above and beyond the possible combinations of 'word-final + word-initial consonant'. The paucity of word-final consonants in phrase-final position is due to the phonological process of phrase-final filling (cf. §3.2.6.4.2.2 below) which does not operate in phrase-medial positions. Moreover, some morphemes are realized by a single phonetic consonant, so that when more than two morphemes are present, multiple consonant sequences are quite common.

    Since the number of clusters is so large it would be impractical to give an example for each of them; instead, the occurring clusters[40] are listed in (841), arranged according to the number of consecutive phonetic consonants, and examples of the 4-consonant sequences, since they are the most marked, are given in (842). Sequences of more than four consonants do not occur (because no word has so many morphemes). Note that (841) includes geminates and medial sequences at all word-internal morpheme boundaries, including compounds and loan words. Recall also that these sequences have intervening schwas in slower, more careful speech, except between geminates and nasal+consonant sequences and before voiceless consonants.

(841)    *Word-medial consonant sequences (here transcribed phonemically)*

| 2 consonants | 3 consonants | 4 consonants |
|---|---|---|
| bd, bf, bg, bk, bl, bm, bn, br, bs, bt, dg, dp, dr, ds, fb, fd, ff, fg, fh, fl, fn, fr, gd, gf, gj, gl, gm, gn, gr, gs, gt, kb, kf, km, kr, kt, lŋ, lb, ld, lf, lg, lj, lk, ll, lm, ln, ls, lv, lw, mŋ, mb, md, mf, mg, mh, mk, ml, mm, mn, mp, ms, nb, nd, nf, ng, nh, nm, nn, nt, nw, nz, ŋd, ŋf, ŋg, ŋh, ŋj, ŋk, ŋl, ŋn, ŋs, ŋt, pt, rb, rd, rf, rg, rh, rk, rm, rn, rp, rs, rv, sŋ, sd, sf, sg, sl, sm, sn, sr, tb, tf, tg, tk, tl, tm, tn, tr, ts | bgr, bll, brb, bsr, btf, btr, gfb, glg, gls, gsr, gtr, krb, krg, ktr, lŋk, lbr, lgm, lgr, lŋ, llb, lln, llr, lsr, mbg, mbn, mbr, mmb, mmd, mmf, mmg, mmh, mmn, mpt, msr, nŋg, nŋk, ndb, ndf, ndg, ndm, ndn, ndr, nds, nnŋ, nnb, nnn, nnr, ntf, ntr, ŋgf, ŋgr, ŋlf, ŋsr, rfb, rgr, rsg, rsr, sgr, srb, trb, trp | btrb, gsrb, gtrg, gtrh, lgmd, lgrb, mbrg, mbrn, mndg, mptr, ndrb, ŋgrb, rgrb, rgrg, rgrh |

(842)   *Words with medial 4-consonant sequences. (All native words are formed with*
*the durative suffix -d plus either the agent plural -ba, instrument singular -gʊ,*
*instrument plural -hĩ or diminutive plural -nɪ suffix. Putative morpheme*
*boundaries without supporting synchronic alternations are marked (+).)*

| word | structure[41] | gloss |
|---|---|---|
| fĩnɔmǝndǝyʊ | fĩ+nɔm+nd(+)gʊ | 'fiftieth' |
| gondrǝbʌ | gond+d+ba | 'passers-by' |
| hɔ̃ŋgrǝba | hɔ̃ŋg+d+ba | 'those who show' |
| hobtrǝbʌ | hob+t+d+ba | 'robbers' |
| holǝɣrǝba | hol+g+d+ba | 'midwives' |
| sɛrǝɣrǝba | sɛd(+)g+d+ba | 'story-tellers' |
| sɪɣtrǝyʊ | sɪg+t+d+gʊ | 'gutter' |
| sɪɣtrǝhĩ | sɪg+t+d+hĩ | 'gutters' |
| sumbrǝyu | sumb+d+gʊ | 'lid' |
| sumbrǝni | sumb+d+nɪ | 'lids' |
| tʊɣsrǝba | tʊg(+)s+d+ba | 'insulters' |
| w̃ãɣrǝyʊ | w̃ãd(+)g+d+gʊ | 'pencil' |
| w̃ãɣrǝhɛ̃ | w̃ãd(+)g+d+hĩ | 'pencils' |
| bɪlǝgǝmdɪ | bɪlǝgǝmdɪ | 'big' (Mòoré loan) |
| lamptɪrkɪ | lamptɪrkɪ | 'electric torch' (French loan) |

### 3.2.3 Vowels

#### 3.2.3.1 Word-final vowels

All vowel qualities occur word-finally, at least in phrase-final position,
though not all of them long. Also, not all diphthongs occur word-finally.

#### 3.2.3.1.1 Restrictions on word-final vowels

All vowel qualities occur word-finally, though not all of them long: my
corpus does not contain final [ẽː] (though there are plenty of [ɛ̃ː]'s), [ɔ̃ː]
(which is a gap in all positions), [ũː] or [ʊ̃ː] (both of which are extremely
rare in medial positions — possibly non-existent in native vocabulary).
Also, not all diphthongs occur word-finally.

#### 3.2.3.2 Word-initial vowels

Word-initial vowels are extremely rare in the major word classes (nouns,
verbs and adjectives of both types), where they are restricted to loan
words.

### 3.2.3.2.1 Restrictions on word-initial vowels

Word initial vowels in native vocabulary are restricted to three morphemes; however these morphemes have a very high token frequency in the language. Their properties are summarized in (843) (adapted from Rennison, 1993). The vowel qualities involved, [a,ɪ,ʊ] are the simplest vowels of the language according to most current phonological theories. The high vowels [ɪ] and [ʊ] are phonetically invariant; the low vowel [a] merges with a preceding high vowel to form a single (i.e. unlengthened) mid vowel, as described in §3.4.3.2.2 below.

(843)    *The word-initial vowels in Koromfe native vocabulary*

|     | *Morpheme(s)* | *Example* |
|-----|---------------|-----------|
| [a] | ARTICLE (obligatory for almost all nouns except proper names) | *a kɛ̃ɔ̃* 'a woman' |
| [ɪ] | PRON. 3SG. NON-HUMAN (subject and possessive); also noun class prefix on cardinal numerals from 2 to 9 and on *ɪkɔl* 'how many?' | *ɪ w̃ɔ̃f(ʊ)* 'they had' *ɪ sulʌ* 'their foreheads' *ɪh̃ɪ̃ɪ̃* 'two', *ɪtãã* 'three', *ɪnaa* 'four' |
| [ʊ] | PRON. 1PL. (subject and possessive) | *ʊ pa* 'we give', *ʊ dãɪ̃* 'our houses' |

Word-initial vowels in loan words are restricted to initial [a], and occur primarily in loans from Arabic like [aləbasəla] 'onion'.

Thus, mutatis mutandis, no word in Koromfe ever begins with a mid vowel (barring the fused article *a*), a tense (ATR) vowel, a nasal vowel, a long vowel or a diphthong.

### 3.2.3.3 Sequences of (syllabic) vowels

The diphthongs described in §3.1.2.2.1.2 above and the long vowels are in fact sequences of vowels whose phonological structure, I claim, is that of independent nuclei.

### 3.2.3.3.1 Restrictions on sequences of (syllabic) vowels

There is no restriction in principle on the sequences of two vowels in Koromfe; I consider the existing gaps to be accidental — see §3.1.2.2.1.2 above for details of the occurring diphthongs. Long vowels, which are no different from sequences of two identical vowels, have only one restriction, namely that [ɔ̃ː] does not occur anywhere in my corpus.

### 3.2.4 The structure of lexical morphemes and word structure

The structure of lexical morphemes is considerably simpler than that of well-formed simplex words. The majority of lexical morphemes of Koromfe is 'phonetically monosyllabic', consisting of either CV(V) or CV(V)C. From a historical perspective it could be argued that these 'were once' the only phonological shapes of lexical morphemes. However, there exist a considerable number of exceptions to this generalization; many verb stems end with a suffix-like -*t*, -*s*, -*g* or -*Vl* element that is no longer identifiable as a separate morpheme because no corresponding 'unsuffixed' stem exists. (Examples are *hubt-* 'get up early', *dɔys-* 'overtake', *darəg-* 'jolt', *job(o)l-* 'watch'.) But three or four-consonant sequences do not exist within native lexical morphemes in my corpus.

### 3.2.5 Syllable structure

The structure of syllables depends to a high degree on the phonological theory to which the analyst adheres. I will therefore attempt here both a theory-bound description (in the following paragraph) and a theory-neutral description (in the ensuing sub-sections).

From the point of view of Government Phonology, the syllable structure of Koromfe can be stated as follows: there are no branching onsets, no branching nuclei and no rhymes. Empty nuclei are licensed word-finally and (word-internally) morpheme-finally, but must be phonetically filled in phrase-final position. An empty nucleus can be optionally realized as schwa except a) in ONO geminate structures (i.e. geminates /bb,dd,gg,ll,mm,nn/ and homorganic 'nasal + voiced (lenis) stop' sequences) and b) before a voiceless onset. For further details, especially on the phonetic filling of unlicensed medial empty nuclei, see Rennison (1993).

#### 3.2.5.1 Medial syllables

As described in §3.2.2.3 above, the only restriction on the complexity of what some theories would consider to be the codas of medial syllables in words like [sumbotrəyu] 'bottle opener' is the shape of 'single-consonant' morphemes and the restrictions on their combination. If schwa is considered to be relevant to syllable structure (which I do not believe), this word has a realization with CV medial syllables only ([sumbotərəyu]) and one with a two-consonant medial coda [tr] ([sumbotryu]) and there are no

principled phonological restrictions on phonetic medial consonant clusters.

### 3.2.5.2 The canonical syllable type

There is no canonical phonetic syllable type for medial syllables. Word-initial syllables always begin phonetically with a single consonant (apart from the few vowel-initial words mentioned in §3.2.3.2.1 above) and phrase-final syllables are subject to the process of 'phrase-final filling' described in §3.2.6.4.2.2 below. The phonological canonical syllable type (simple non-branching CV syllables) was described in §3.2.5 above.

### 3.2.6.1 Restrictions between word/syllable initial consonants and the following vowels

### 3.2.6.1.1 Word-initial restrictions

One trivial restriction is that the allophones [w̃], [j̃] and [h̃]of /w/, /j/ and /h/ respectively occur only syllable-initially before the (lexically) nasal vowels which trigger them (cf. §3.1.2.1.5 above).

A more significant restriction is that word-initial syllables do not permit every logically possible combination of consonant and vowel. The restrictions concern only the (relatively sonorant) consonants [v,m,n,l] (recall that [ŋ] does not occur word-initially, nor does [r] in native vocabulary); all other consonants can combine with any vowel. The restrictions in question are given in (844) (adapted from Rennison, 1993).

(844)   *Restrictions between word-initial consonants and the following vowels in native vocabulary*

| onset | nucleus | comments |
|-------|---------|----------|
| v | a,ɛ,e,ɪ | [v] occurs only in 9 lexical stems, always word-initially. |
| m | ɛ,ɔ,ɛ̃,ɔ̃,a,i,ə[42] | An expected high vowel lowers to mid (except [i]). |
| n | ɛ,ɔ,ɛ̃,ɔ̃,ã,a,i | An expected high vowel lowers to mid (except [i]).[43] |
| l | any oral full vowel | Has /l/ before nasal vowel become [n]? |

The restriction of word-initial [v] to the vowels [a,ɛ,e,ɪ] (none of them back!) is probably an artefact of the rarity of the segment [v] rather than a phonologically motivated restriction: only 9 lexical stems in my corpus contain a [v], and of these all are word-initial.

The restrictions on the nasal consonants are more significant. It seems that the historically active process of post-nasal vowel lowering (cf. §3.4.1.1.1.1 below) has removed all traces but one[43] of high vowels following word-initial consonants, with the exception of tense [i]. The process of post-nasal nasalization (again, cf. §3.4.1.1.1.1 below), on the other hand, has not been so effective in this context, and several oral vowels occur.

The restriction on word-initial occurrences of the lateral approximant [l] to oral following vowels is especially interesting because it is almost unimaginable that the sequence [lṼ] (where Ṽ is any nasal vowel) did not exist at some previous stage in the language. So what has become of such [lṼ] sequences? Unfortunately I have no data on related languages which would allow me to investigate this question further. Clearly, the most likely alternatives are either a) that /l/ was nasalized to [n] (as it is in other contexts due to nasalization processes; but all nasalization processes are progressive, not regressive in Koromfe), or b) that the nasal vowel following /l/ was denasalized (a process type which does not occur elsewhere in the language).

### 3.2.6.1.2 Other syllable-initial restrictions

A restriction on final phonetic syllables is that when phrase-final filling (cf. §3.2.6.4.2.2 below) occurs after a nasal consonant, the 'epenthetic' final vowel is lowered from high to mid (apart from tense [i]), and is nasal (apart from tense [i]). Examples are given in (845), along with words with other syllable-initial consonants which do not lower (the normal case).

(845)  *Some 'epenthetic' word-final vowels due to phrase-final filling*

| verb (DURATIVE) | gloss | verb (DURATIVE) | gloss |
|---|---|---|---|
| konnõ | 'put' | mɛ̃ŋәnɛ | 'remain' |
| kɔrɣʊ | 'dry' | mɛntrɪ | 'assemble' |
| kobtru | 'shave' | mɛsɛlɪ | 'measure' |
| dɔmmɔ̃ | 'tap' | paŋәnɛ | 'roast' |
| dɔ̃nɔtrʊ | 'detach' | paɣatrɪ | 'open' |
| dollru | 'put' | pasɣrɪ | 'split' |

The related process of 'backing' of the final epenthetic vowel after a consonant sequence containing a labial does not always involve a syllable-

initial consonant; it is therefore dealt with in §3.2.6.4.2.2 below under 'phrase-final filling'.

### 3.2.6.2 Restrictions between (phonetic) word/syllable final consonants and the preceding vowels

Since there are no syllable-final consonants in Koromfe, restrictions between what appear (phonetically) to be two (or more) consonant sequences are described in §3.2.6.3 below.

### 3.2.6.3 Restrictions between syllable initial consonants and next-syllable initial consonants

The syllable structure of Koromfe has no branching constituents: therefore, sequences of phonetic consonants which sound as if they are adjacent are interrupted on the phonological level by an intervening empty nucleus (vowel); this vowel also often manifests itself as schwa in some contexts (see §3.2.5 above).

The agreement in nasality of second and third-syllable-initial consonants is the result of the onset-to-onset nasalization process, and is described in §3.4.1.1.2 below.

Heterorganic 'nasal stop plus voiced (lenis) oral stop' sequences, which in Koromfe I analyse as two syllable onsets with a mute nucleus sandwiched between them, occur only at morpheme boundaries (e.g. in [sɔmdɛ] 'red' from /sɔm+dɛ/), but homorganic sequences occur in lexical morphemes (e.g. [sumbʌm] 'close').

### 3.2.6.4 Vowel harmony

It is easiest to view the vowel harmony of Koromfe as two distinct processes, which I term ATR harmony and colour harmony, although all vowels which undergo colour harmony also undergo ATR harmony. A third process, that of vowel nasalization, is difficult to classify because a) both vowels and consonants can be nasalized and b) there are several exceptions. The nasalization processes are therefore not described here, but in §3.2.6.6 and especially §3.4.1.1.1.1.

### 3.2.6.4.1 ATR harmony[44]

The domain of ATR harmony is the word. This includes the lexical word stem plus any derivational suffixes plus inflectional suffixes (i.e. noun

class suffixes and tense/aspect suffixes). Clitic pronouns (both proclitic and postclitic) do not harmonize for ATR — they are always lax (non-ATR). The ATR vowel classes are given in (846).[45] The behaviour of other morphemes vis-à-vis ATR harmony is described in detail below.

(846)  *The lax (=non-ATR) and tense (=ATR) vowel classes. (Diphthongs behave as a sequence of the corresponding monophthongs.)*

|  | Non-ATR | | | ATR | | |
|---|---|---|---|---|---|---|
|  | *front* | *central* | *back* | *front* | *central* | *back* |
| *high* | ɪ ɪː ĩ ĩː |  | ʊ ʊː ũ ũː | i iː ĩ ĩː |  | u uː ũ ũː |
| *mid* | ɛ ɛː ɛ̃ ɛ̃ː | (ə) | ɔ ɔː ɔ̃ ɔ̃ː | e eː ẽ ẽː | (ə) | o oː õː *õː |
| *low* |  | a aː ã ãː |  |  | ʌ ʌː ʌ̃ ʌ̃ː |  |

The ATR-harmony class of a word is determined by its lexical stem. Therefore, with the exception of two words (both very common nouns) dealt with below, the vowels of a word stem never change their ATR class. Derivational and inflectional suffixes, on the other hand, all have both an ATR and a non-ATR variant. I therefore assume[46] that the lexical form of all suffixes is the non-ATR variant. There exist no suffixes which induce a change in the ATR class of other vowels (in particular, of stem vowels).

The vowel schwa ([ə]) has a special status (cf. §3.1.1.1 above) in that it is optional, prosodically weak, and never noticeably long, nasal or tense. It cannot therefore be considered to participate in ATR harmony, nor can it be considered to be exceptional in the sense of a neutral (full) vowel.

Words exemplifying ATR harmony abound in this monograph; I will therefore only present a few 'minimal pairs', in (847), where ATR is the only property distinguishing different words.

(847)  *Examples of ATR harmony*
       *a) singular nouns*

| noun (SG.) | gloss | noun (SG.) | gloss |
|---|---|---|---|
| dɔɔ | 'alms' | kʊtrɛ | 'knot of millet stalks' |
| doo | 'kind of tree' | kutre | 'root' |
| fɛləŋa | 'narrow' | tʊllɛ | 'middle' |
| feleŋʌ | 'new' | tulle | 'rear' |
| kɔtɛ | 'back of the neck' |  |  |
| kote | 'pupil (of eye)' |  |  |

*b) verbs (singular action nouns)*

| verb | gloss | verb | gloss |
|------|-------|------|-------|
| fʊsam | 'move' | kɛram | 'tilt' |
| fusʌm | 'leave' | kerʌm | 'close partially' |
| hʊbɔlam | 'hide' | kʊram | 'knot' |
| hubolʌm | 'wash' | kurʌm | 'begin' |
| hʊbtam | 'throw' | pɪsam | 'squirt' |
| hubtʌm | 'get up early' | pisʌm | 'burst' |
| hʊlam | 'give birth' | sʊkam | 'ventilate' |
| hulʌm | 'drip' | sukʌm | 'hit' |
| jɪram | 'call' | tɔsam | 'pick up' |
| jirʌm | 'descend' | tosʌm | 'lay (an egg)' |
| jɪsam | 'draw (e.g. water)' | | |
| jisʌm | 'suffice' | | |

Optionally, a long word with final [ʌ] such as [korombʌ] 'Koromba' (PL.) (the name of the people who speak Koromfe) sounds to have a less tense final vowel which is closer to lax [a].

As mentioned above, there exist two words, given in (848), whose stem does change its ATR harmony class. However, these changes are idiosyncratic and cannot be ascribed to the effect of affixes. Both these words are noun singular-plural pairs; no such change of harmony class ever occurs in verb stems or in any other words. They may have originated from the laxing of final [ʌ] as described in the previous paragraph; this vowel seems to be typologically very rare in the languages of the world.

(848)    *Idiosyncratic exceptions of ATR harmony (occurring only in nouns)*

| singular | plural | gloss |
|----------|--------|-------|
| fo | fʊba | 'person' |
| wolle | wala | 'foot, leg' |

In compound nouns or NPs each noun keeps its ATR harmony class, e.g. [jɪ bi] 'member of the chief family' from [jɪɪ] 'chief family' and [bi] 'child' or [kii sa] 'mad person' from [kii] 'madness' and [saa] 'owner'.

*3.2.6.4.2 Colour harmony*

*3.2.6.4.2.1 The normal case*

The process of colour harmony affects only 'epenthetic' vowels which occur a) in conjunction with suffixes (including the verb suffixoid *-Vl* and the reversive suffix *-Vt*) or b) through 'phrase-final filling' (cf. §3.2.6.4.2.2) — a process which rarely affects nouns because they usually have a class suffix with either a final vowel or permitted consonant [m] or [ŋ]. In Government Phonology terms, these vowels are all the result of obligatory filling of lexically empty nuclei because of licensing failure. The fact that they occur only in verbs (or nouns derived from verbs) is accidental; these happen to be the only morphemes in which such unlicensed 'empty' nuclei occur. (See Rennison, 1993 for a fuller account.) This means, of course, that vowels that are subject to colour harmony are never long (long vowels are heterosyllabic, i.e. NON sequences with an empty onset) and never distinctively nasal (although they can be nasalized by general nasalization rules which are not a part of the colour harmony process).

The process of colour harmony involves the transmission of the frontness or backness of the stem vowel to all following vowels in the word. (The word stems usually have only one vowel; if the stem vowel is a diphthong, the quality of its second part is transmitted, and in a few loan words the last stem vowel is used). If the stem vowel is low, no quality is transmitted, but phrase-final filling provides a high front quality.

The basic pattern for verbs is shown by the examples in (849) (which are DURATIVE forms of verbs with the reversive morpheme *-Vt* in their phrase-final realization); the behaviour of one class of phonetically disyllabic verbs with labial consonants is slightly different, and is described separately below.

(849)   *Examples of colour harmony: the normal pattern (phrase-final realizations of verbs with the reversive morpheme* -Vt — *DURATIVE forms with the suffix* -d)

| verb | $V_1$ | $V_2$ | $V_3$ | gloss |
|------|-------|-------|-------|-------|
| dɪŋgɛtrɪ | ɪ | ɛ | ɪ | 'flee' |
| dɔ̃nɔtrʊ | ɔ̃ | ɔ | ʊ | 'undo' |
| dollotru | o | o | u | 'take' |
| feɣetri | e | e | i | 'revive' |
| fiɣetri | i | e | i | 'dig up' |

| verb | $V_1$ | $V_2$ | $V_3$ | gloss |
|------|------|------|------|-------|
| fɔ̃ŋɔtrʊ | ɔ̃ | ɔ | ʊ | 'rest' |
| ganatrɪ | a | a | ɪ | 'take down' |
| hʊbɔtrʊ | ʊ | ɔ | ʊ | 'find (sth. hidden)' |
| kɛmetrɪ | ɛ | ɛ | ɪ | 'turn round' |
| kɔrɔtrʊ | ɔ | ɔ | ʊ | 'divide' |
| laɣatrɪ | a | a | ɪ | 'detach' |
| liɣetri | i | e | i | 'uncover' |
| nɛŋɛtrɪ | ɛ | ɛ | ɪ | 'oblige' |
| sumbotru | u | o | u | 'open' |

The verbs in (849) each have three full vowel syllable nuclei (the maximum ever found with colour harmony), repeated as $V_1$, $V_2$, $V_3$ in (849) for ease of reference: $V_1$ is the stem vowel, $V_2$ is the vowel of the *-Vt* reversive suffix, and $V_3$ is the obligatory 'epenthetic' vowel provided by the process of phrase-final filling. In phrase-medial positions, $V_3$ is not present. $V_1$ is lexically determined; $V_2$ is identical to $V_1$, except that it cannot be high and (here) is not nasal,[47] and $V_3$ is identical to $V_1$, except that it must be high[48] and is not nasal.[47] When the $V_1$ is low, $V_3$ is always the high front vowel [ɪ] or [i], never back (pace the forms with labial consonants dealt with below).

In phonological terms, we can say that it is the properties 'frontness' (the I element of GP) and 'back-roundness' (the U element) which are transmitted from the first vowel to all unlicensed nuclei (i.e. harmonizable vowels) in the rest of the word. A non-final harmonizable vowel is specified as non-high (i.e. has an A element),[49] and is therefore realized phonetically as a mid 'copy' of the first vowel if the first vowel is non-low, or as the low vowel [a] or [ʌ] if the first vowel of the word is low. A phrase-final harmonizable vowel, on the other hand, has no A element (non-high specification), and therefore surfaces as a high copy of the first vowel when the first vowel is non-low. When the first vowel is low, the final vowel receives an I element (high front specification) from 'nowhere'.[50]

In words with only two phonetic syllables (i.e. the stem vowel and the phrase-final epenthetic harmonized vowel), the final vowel is a high 'copy' of the first, just like the final vowels in (849).

The pattern of disyllabic nouns with the [ŋ] singular variant of the *gʊ/ɪ* class suffix as in [bĩnĩŋ] 'black (SG.)', unlike the verbs exemplified above,

has no lowering of the high second (phonetically non-final) vowel. Examples of this pattern can be found in §2.1.1.9.1.2.5.

It is important to note that this process of colour harmony is obligatory and exceptionless. However, unlike ATR harmony, colour harmony does not affect every single vowel of every word of the language; it affects only 'harmonizable' or 'unspecified' vowels (in GP: unlicensed empty nuclei) which stand in positions where they must receive phonetic colouring. Schwa is never harmonized, since it is the optional realization of a licensed empty nucleus; but when the number of syllables in a word changes (e.g. by suffixation) alternations between schwa and a harmonized vowel arise, as shown by the PAST and PROGRESSIVE forms presented in (850). The PAST forms such as [hamənɛ] 'believe' has schwa because the final (lexical) vowel [ɛ] licenses that nucleus;[51] but in the corresponding PROGRESSIVE form [hamandaa] (phonologically /hamVn∅+daa/, where ∅ represents a licensed empty nucleus and V an unlicensed empty nucleus) the second vowel cannot be licensed[52] because the following nucleus is empty, and so must be filled (by colour harmony).

(850)   *Words with -Vl suffixoid: harmonized second-syllable vowels in the UNMARKED and PROGRESSIVE forms. (The suffixal /l/ is nasalized to [n] in some forms.)*

| lexical | unmarked | past (suffix -ɛ) | prog. (suffix -daa) | gloss |
|---------|----------|------------------|---------------------|-------|
| /bunVl/ | buno | bunne | bunondʌʌ | 'steal' |
| /dagVl/ | vaba | vabəlɛ | vabalaa | 'hit' |
| /dagVl/ | daɣa | daɣəlɛ | daɣalaa | 'wait' |
| /gɔndVl/ | gɔndɔ | gɔndəlɛ | gɔndɔlaa | 'deform' |
| /hamVl/ | hama | hamənɛ | hamandaa | 'believe' |
| /hubVl/ | hubo | hubəle | hubolʌʌ | 'wash' |
| /tɔŋVl/ | tɔŋɔ | tɔŋənɛ | tɔŋɔndaa | 'light' |
| /zaŋVl/ | zaŋa | zaŋənɛ | zaŋandaa | 'ask for' |

There exist no words with separate colour harmony stretches because (conspiratorially) the maximum size of non-compound native words is restricted to three syllables. Also, there are no lexically disyllabic verb stems; therefore, whenever a verb has three vowels, the second must be a colour-harmonized (therefore non-high) copy of the first; trisyllabic verbs such as *[dɪŋgatrɪ] with a colour-disharmonic second vowel do not exist,[53] no matter what their morphological source.

However, there do exist words with lexical full vowels following colour-harmonized vowels, namely the agent, instrument and location nouns

derived from harmonizing verbs (e.g. [sumbotrəĥĩ] 'bottle-openers', where the vowel [o] is colour-harmonized but [ĩ] is not — though it is obligatorily ATR-harmonized).

### 3.2.6.4.2.2 Phrase-final filling

Phrase-final filling occurs only at the end of phonological phrases,[54] which includes a) pre-pausal positions (even in the middle of syntactic phrases) and b) single words in isolation.[55] Phrase-medially, word-final consonants can occur freely; in phrase-final position only the consonants [m,n,ŋ,l] are permitted (cf. §3.2.1.1); after all other consonants an 'epenthetic' vowel must be 'inserted'.[56] This vowel, unlike the optional vowel schwa, must be realized phonetically as a full vowel, and therefore takes on the colouring (in terms of frontness and backness) which is locally available (usually from the first vowel of the word),[57] as was seen in the previous section.

There exist two types of violation of the general pattern, each of which is a fully regular process in itself. The first is the lowering of the coloured final 'epenthetic' vowel to mid after a nasal consonant and the nasalization of the vowel if it is back, as described in §3.2.6.1 above. The vowel [i] hardly ever participates[58] in this lowering process, but all other high vowels do. (Recall that only short monophthongs ever occur as epenthetic vowels.) Some examples were given in (845) above, and further examples are given in (851).

(851)   *Examples of colour harmony: lowering of 'epenthetic' vowels subject to 'phrase-final filling' after a nasal consonant. (UNMARKED verb forms and DURATIVES with the suffix -d.)*[59]

| unm. | dur. | gloss | unm. | dur. | gloss |
|------|------|-------|------|------|-------|
| dan | dannɛ | 'lick' | kɔ̃ŋ | kɔ̃ŋənɔ̃ | 'age' |
| dɔ̃ | dɔ̃nɔ̃ | 'dream' | kon | konnõ | 'put' |
| dɔ̃ĩ | dɔ̃ĩnɛ | 'join' | mɛ̃ŋ | mɛ̃ŋənɛ | 'remain' |
| dɔ̃m | dɔ̃mmɔ̃ | 'bite' | min | minni | 'submerge' |
| doɣom | doɣomõ | 'cut' | nɛŋ | nɛŋənɛ | 'water' |
| ɟɛ̃ĩ | ɟɛ̃ĩnɛ | 'catch' | tɔ̃ | tɔ̃nɔ̃ | 'walk' |
| ɟɔ̃ | ɟɔ̃nɔ̃ | 'drink' | w̃ũn | w̃ũnnõ | 'return home' |

The presence of a nasal first vowel alone is not sufficient to cause the lowering of the colour-harmonized final vowel if nasalization of that vowel is blocked, e.g. by an intervening voiceless (tense) consonant as in [ĥɔ̃kʊ] (UNM.), DUR. [ĥɔ̃krʊ] 'scratch'. The final vowel of this word can

never be lowered to [ɔ] or [ɔ̃] to give *[h̃ɔ̃kɔ] etc. On the other hand, the lowered final vowel need not necessarily be nasalized if the preceding consonant is nasal and the first vowel of the word is not back (cf. the forms [dannɛ] and [nɛŋənɛ] in (851) above).

The second violation of the general pattern of colour harmony is triggered by labial consonants occurring in the consonant sequence between the penultimate vowel and the colour-harmonized final vowel. In this case, the final vowel receives 'round-backness' (i.e. a U element) from the labial consonant, even if the first vowel of the word is front. Examples are given in (852). Note that it is immaterial whether the word has two or three syllables, though on the other hand there happens to be only a single suffix *-Vm* which ever triggers this process in trisyllabic words like [laɣamɔ̃] and [weremõ] in (852).

(852)  *Examples of colour harmony: round backness of 'epenthetic' vowels subject to 'phrase-final filling' after a consonant sequence including a nasal. (UNMARKED verb forms and DURATIVES with the suffixes -d and -f.)*[60]

| unm. | durative | gloss | unm. | durative | gloss |
|------|----------|-------|------|----------|-------|
| babtʊ | babtrʊ / bafʊ | 'lie down' | jɛbtʊ | jɛbtrʊ | 'pay' |
| bɛbʊ | bɛbrʊ | 'dress' | laɣam | laɣamɔ̃ | 'frighten' |
| dɛbʊ | dɛbrʊ / dɛfʊ | 'follow' | sɪbʊ | sɪbrʊ | 'die' |
| dɛɣɛ | dɛɣɛlɪ / dɛɣfʊ | 'accuse' | sɪɣtɪ | sɪɣtrɪ / sɪɣfʊ | 'be quiet' |
| hɛbʊ | hɛbrʊ | 'introduce' | tabəɣʊ | tabəɣrʊ | 'trample' |
| h̃ɛ̃m | h̃ɛ̃mmɔ̃ | 'meet' | tamsʊ | tamsrʊ | 'lose' |
| h̃ɛ̃msʊ | h̃ɛ̃msrʊ | 'meet' | tɛbʊ | tɛbrʊ | 'spread out' |
| hibu | hibru | 'fill' | werem | weremõ | 'ask for' |
| hibsu | hibsru | 'fill' | zambʊ | zambrʊ | 'deceive' |
| hibtu | hibtru | 'fill' | zim | zimmõ | 'extinguish' |

Two aspects of this back colouring by labial consonants are particularly interesting:

Firstly, the triggering labial consonant can potentially be at any position within the consonant sequence preceding the phrase-final nucleus, although strangely it is always at the edge of the consonant sequence, and never alone in the middle of three consonants (i.e. there are forms like [ba<u>b</u>trʊ] or [dɛɣfʊ] but none like *[bat<u>b</u>rʊ]; in words like [za<u>m</u>brʊ] a labial is the middle consonant of three, but the first consonant is also labial. This is probably just a morphological accident, since suffixes with labial are not

very numerous, and suffixation is the only source of word-internal consonant sequences.

Secondly, in trisyllabic words which participate in colour harmony a labial consonant between $V_1$ and $V_2$ does not trigger backness harmonization of $V_2$ or of $V_3$, but a labial consonant between $V_2$ and $V_3$ does. Thus in (849) above we have the word [kɛmɛtrɪ] but never anything like *[kɛmɔtrʊ], despite the labial [m] between $V_1$ and $V_2$. In [weremõ] in (852), on the other hand, the labial [m] later in the word, i.e. between $V_2$ and $V_3$, triggers the back harmony (and rounding and nasalization) of the phrase-final epenthetic vowel. In autosegmental terms: the colouring of a phrase-final epenthetic vowel is effected by an element on the I/U-tier. It is not the closest element on the I/U-tier which does the colouring but the element of the closest skeletal position that is associated with the I/U tier. The autosegmental representations of [kɛmɛtrɪ] and [weremõ] (omitting everything but the skeleton and the I/U-tier) are as given in (853) and (854) respectively.

(853)   *The autosegmental representation of* [kɛmɛtrɪ] *'turn round' (DUR.) — skeleton and the I/U-tier only*[61]
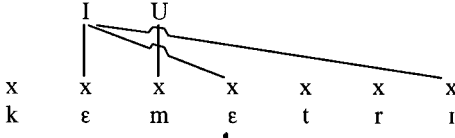


(854)   *The autosegmental representation of* [weremõ] *'ask for' (DUR.) — skeleton and the I/U-tier only*
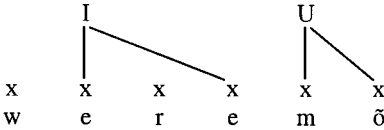


### 3.2.6.5 Consonant harmony

There is no process of consonant harmony in Koromfe.

### 3.2.6.6 Other restrictions between adjacent or nonadjacent units or clusters

The two processes of nasalization described in §3.4.1.1.1.1 below conspire to produce a prohibition on the occurrence of the sequence 'nasal vowel +

lenis stop' (i.e. nasal vowel plus [b], [r] or [ɣ]); this sequence therefore occurs only in what appear to be loan words from Mòoré such as [fõrɪ] 'marriage'. Words with voiceless oral consonants following a nasal vowel, on the other hand, are quite common (e.g. [h̃ɔ̃kam] 'scratch'). The status of consonant sequences after a nasal vowel is difficult to assess because there exist so few words with this pattern. The words [w̃ãrɣam] 'write' and [pɅ̃rsɅm] 'widen' (and related words) are inflectionally so well-behaved that they ought to be a part of native vocabulary.

### 3.2.6.7 Differences between the phonotactic patterns allowed with different word classes

The majority of the nouns are non-derived and disyllabic, consisting of a monosyllabic word stem and a class suffix which ends in a vowel or a permitted phrase-final consonant [m] or [ŋ]. The two vowels of a typical non-derived noun need not agree in backness/frontness.

The majority of the verbs, on the other hand, have two inflectional forms, the UNMARKED and the DURATIVE, which are consonant-final and therefore must be adjusted by the process of colour harmony. All the vowels of every verb must conform with colour harmony (i.e. they agree in backness/frontness, pace the sub-regularities mentioned in §3.2.6.4.2.2 above.)

In addition, the total assimilation of suffix-initial /d/ to a preceding /m/ occurs only in the verbs, yielding [mm]; in the nouns no total assimilation occurs, and nasalization of the /d/ is optional , so that [mn] and [md] occur. Mutatis mutandis [mn] or [md] never occur in verbs (with the sole exception of the verbal adjective [homnɅɅ] 'be hot'), and [mm] never occurs as a realization of /m+d/ in nouns (although the sequence occurs in nouns derived from verbs, in the geminated -*ma* plurals like [sa], PL. [sammã] 'father' and in the -*m* class of uncountables, e.g. [sɔmmɔ̃] 'salt').

A similar constraint is that the sequence 'nasal vowel plus voiceless stop' does not occur in native nouns, but occurs frequently in verbs. This also (particularly) applies to outputs of the voiced-stop coalescence rule described in §3.4.3.1 below, which produces 'nasal vowel plus [t]' only in verbs.

The morphemes which exist both as noun class suffixes on (simplex) nouns and as derivation-cum-noun-class suffixes on agent and instrument nouns derived from verb stems have a variable phonetic realization in the

simplex nouns (in particular, a nasalized variant) but a phonetically fixed realization (pace ATR harmony) in the deverbal derived nouns. (Cf. §2.1.1.9.1 for details of the noun class suffixes.) One effect of this is that simplex nouns of the *gʊ/ɪ* noun class can have a singular with a shape like [bɔ̃nɔ̃ŋ] 'goat', with two phonetic syllables and a final velar nasal (cf. the end of §3.4.1.1.1.1 for a blow-by-blow account of the 'derivation' of the parallel word [w̃ɔ̃nɔ̃ŋ] 'chicken'). In verbs and deverbal nouns, on the other hand, a velar nasal never occurs at the end of a disyllabic form.

# 3.3 Suprasegmentals

### 3.3.1 Distinctive degrees of length

There are never more than two degrees of length in Koromfe (i.e. 'normal length' and 'double length' — abbreviated to 'short' and 'long' respectively).

In two words only, namely [bɛnnənɛ] 'backsides' and [w̃ɛ̃nnənɛ] 'stoppers', is there a phonological constellation which might conceivably produce an additional degree of length (longer than double). However, the normal realization of these words contains a schwa, and when tempo and casualness are increased sufficiently to make the schwa disappear, the resulting long [nː] is not noticeably longer than any other long [nː] (resulting from two rather than three identical consonants).

*3.3.1.1 Vowels*

Phonetically, every full vowel except [õ] can occur either short or long. The absence of [õː] may be only an accidental lacuna in my corpus; long vowels are relatively rare. Schwa is never long. Phonologically, I consider the long vowels, like the diphthongs, to be sequences of vowels separated by an empty onset.

Because they are in fact realizations of empty nuclei, neither schwa nor colour-harmonized vowels (cf. §3.2.6.4.2 above) occur long (cf. Rennison, 1993).

Extensive examples contrasting short and long vowels are given in §3.1.2.2.1.1 above.

*3.3.1.2 Other syllabics*

No other syllabics have a long variant — in particular the syllabic nasals. This is again a repercussion of the fact that a syllabic nasal involves the filling of an empty nucleus (cf. Rennison, 1993).

*3.3.1.3 Glides*

Glides do not have a long variant.[62]

*3.3.1.4 Liquids*

The lateral approximant /l/ occurs both long and short. The tap [r] is an allophone of the voiced (lenis) stop /d/ and does not occur long as *[rr];

however, there exists a phonetic realization of long /d/, namely [t], as described in §3.3.1.7 below. Phonologically, I consider all long/geminate consonants to consist of two onsets separated by an empty nucleus.

Examples contrasting long and short l's are given in §3.1.2.1.4 above.

### 3.3.1.5 Nasals

The nasals /m/ and /n/ occur both long and short; /ŋ/ occurs only short; some expected long *[ŋŋ]'s are simplified to a short (i.e. single) [ŋ], e.g. in the DURATIVE of the verb [boŋ] (UNM.), DUR. [boŋʌʌ]. Here, if the DURATIVE suffix is -*d*, we expect total assimilation to the preceding /ŋ/, following the pattern of total assimilation to a preceding /m/ or /n/. However, no such process occurs here or elsewhere in the language. The number of words that have the same phonological shape as [boŋʌʌ] is very small. There is also some slight evidence from nouns like [kereŋkʌɲʌ], PL. [kereŋkʌɲəne] 'spirit of the bush', where the word stem seems to end with [ŋ] and the diminutive singular suffix -*ga* is expected (corresponding to the plural -*nɛ*). In this context (following the stem-final nasal [ŋ]) the singular suffix variant [ŋa] would be expected, resulting in a geminate velar nasal. However, none occurs.

Other verbs, in larger numbers, do not follow the [ŋ]-deletion pattern of [boŋʌʌ], but have an unassimilated sequence [ŋn] or [ŋən] — examples are given in (855).

(855)    *Verb forms demonstrating the failure of total assimilation of the PROGRESSIVE suffix -daa to a stem-final velar nasal*

| unm. | progressive | gloss | unm. | progressive | gloss |
|------|-------------|-------|------|-------------|-------|
| fɛŋ | fɛŋənaa | 'leave over' | nɛŋ | nɛŋənaa | 'water' |
| gaŋ | gaŋənaa | 'refuse' | paŋ | paŋənaa | 'roast' |
| kɔ̃ŋ | kɔ̃ŋənaa | 'age' | w̃ãŋ | w̃ãŋənaa | 'break' |
| mɛ̃ŋ | mɛ̃ŋənaa | 'remain' | | | |

Recall again that phonologically all long/geminate consonants consist of two onsets separated by an empty nucleus.

Examples contrasting long and short m's and n's are given in §3.1.2.1.3 above.

## 3.3.1.6 Fricatives

Fricatives do not normally occur long. There exists a single word type in my corpus in which two identical fricatives occur next to one another in a simplex word: location nouns such as [tufəfʌ] or [tuffʌ] 'place to sit'. This type of derived noun uses the suffix -*fa* attached to the DURATIVE stem of a verb; verbs like 'sit', which form their DURATIVE stem with an -*f* suffix therefore have a double /f/, both phonetically and phonologically.

To my knowledge, no other long fricative occurs, and I consider the long [ff] to be extremely marginal — particularly since, in contrast with all other geminate consonants, it can have an optional intervening schwa.

## 3.3.1.7 Stops

Stops do and do not occur long: phonetically they do not display more than one degree of length. Phonologically a voiced (lenis) stop which is geminated is realized as a voiceless (fortis) stop at the same place of articulation. However, this fortis stop is not noticeably longer than a normal, single voiceless stop. And so, bearing in mind the almost universal tendency in languages for voiceless stops to be longer than their voiced counterparts, I would say on balance that the stops [p,t,k] which are the phonetic realization of geminated [bb,dd,ɡɡ] respectively are not phonetically long. See §3.4.3.1 (esp. §3.4.3.1.1) below for details of the coalescence process.

Therefore it seems that phonologically there are two possible representations for a voiceless stop in Koromfe: a single onset containing a voiceless stop, and an ONO sequence where the two onsets contain a voiced stop and the intervening nucleus is empty.

## 3.3.2 Stress

### 3.3.2.1 The rôle of stress

Stress plays no significant rôle in Koromfe. The phonetic manifestation of word stress is quite weak, and there is never any noticeable change of the position of stress within a phonological word. The only case in which stress correlates with anything phonologically interesting is when vowels of non-initial syllables are shortened when they are unstressed (see §3.3.2.2.2 below).

### 3.3.2.2 The phonetic correlates of stress

### 3.3.2.2.1 Word stress

In general, a stressed syllable is louder than an unstressed syllable. Word stress is not expressed by pitch changes; these indicate phrasal stress or the intonational peak. Stress is always located on the first syllable of a word. The pitch pattern of a phrasally or intonationally stressed word is usually rising from the first to the second syllable, then falling, so that the highest pitch of the phrase or intonation pattern is the second syllable of the stressed word.

However, the difference in amplitude and tone between, say the two syllables of the word [gote] 'stream' is minimal. In word lists the informants sometimes strike up a 'slight fall' tone pattern with roughly equal amplitude, or sometimes a 'slight rise' pattern accompanied by a slight drop in amplitude. Syllables containing schwa are considerably weaker than full vowel syllables.

### 3.3.2.2.2 Phrase stress

On the phrase level, there is maximally a single stress which can be assigned to a noun phrase or an adverb-verb group,[63] both for normal and for contrastive stressing. This phrasal stress is expressed by a high tone on the final full-vowel syllable of the first stressable word in the phrase.

A negative marker, if present, always receives the stress of the adverb-verb group, expressed as a higher tone. This means that if the verb is a PROGRESSIVE form or verbal adjective with a final long /aa/, this is shortened to a single short [a].

Typically, nouns, verbs, adjectives (of both types) or adverbs carry phrasal stress, but other word types, i.e. the 'grammatical' words (apart from the sentence-final yes-no question particles) do not. Proclitic weak pronouns are not stressable, but strong (disjunctive) pronouns with the 'dummy' word stem *-kɔ* are. The article *a* which precedes almost every word of a word list has a considerably lower amplitude and lower tone than the following noun. Post-nominal DETERMINERS or DEICTICS such as *hoŋ* (HUM. SG.) are also quieter and on a lower tone than the noun which they qualify. Conjunctions and relative pronouns introducing a subordinate clause are never stressed.

In all types of complex NP the first element normally receives the phrasal stress (higher tone) — unless some other part of the compound is

contrastively stressed. This seems to be responsible for the shortening of the word *saa* 'owner' to [sa] when it is the second element of a compound NP.

### 3.3.2.3 Levels of stress

For both words and phrases there are no phonologically relevant levels of stress above and beyond the distinction of stressed and unstressed (for full vowels) and that of full (i.e. potentially stressable) vs. schwa (i.e. un-stressable) vowels at the word level. Of course, phonetically the pattern of sharp pitch rises and gradual falls produces an almost infinite number of pitches.

### 3.3.2.4 The position of stress when constant

The position of stress is constant at the word level: on the first syllable of the word.

### 3.3.2.5 The position of stress when mobile

At the phrase level the position of stress (expressed by a single high tone) is constant as described in §3.3.2.2 above unless any word in the phrase is contrastively stressed (in which case it receives the high tone).

### 3.3.2.6 Exceptional stress patterns in loan-words

The stress pattern of loans form Mòoré is identical to that of native Koromfe words. However, loans from French, especially when used by more educated speakers, seem to have longer and (slightly) louder final syllables than native Koromfe words. Nevertheless, the difference in prominence between the individual full-vowel syllables is quite small.

### 3.3.3 Pitch

Pitch is **not** used to distinguish lexical items, and Koromfe has no linguistic tones of any kind. This point is very important because most related languages do have linguistic tones: Mòoré, for example, has two register tones and automatic downstep (cf. Rennison, 1987c). However, I have checked this point repeatedly and even went to the trouble of learning to hear the tones of Mòoré and analysing its tone system. Koromfe definitely has no linguistic tones.

However, pitch is used in phrasal accent: the stressed word has a high pitch (tone) on one of its syllables, all other words have a lower pitch. This is an intonational or phrase-stress-like use of pitch, and is never lexically contrastive: indeed it is usually automatic (e.g. on negative markers).

§3.3.3.2–9 are therefore inapplicable.

### 3.3.3.10 The interaction of pitch and stress

At the word level, the stressed first full-vowel syllable of every word has a (slightly) greater amplitude than the following unstressed syllable(s). Phrase stress, however, is not carried by the word-stressed syllables but by the final syllable of the first stressable word of the phrase. Therefore the successive syllables of a polysyllabic phrasally stressed word have decreasing amplitude but increasing pitch, as in the word [felei] in (856).

(856)   *The pitch pattern of the sentence:*

a       felei       koŋ                     kannaa
ART.    life (SG.)  DET. NON-HUM. SG.       be bitter

'*Life is bitter.*'

[ a felei koŋ kannaa ]

$$\left[ -\ \ ^{-\ -}\ -\ \ -\ - \right]$$

(857)   *The pitch pattern of the sentence:*

kɔ̃nə               ŋkɔ              w̃ɛ̃ selle       ŋ            kjebe
when (CONJ.)       DISJ. PRON. 2SG. be  outdoors   PRON. 2SG.   grow + PAST

nɛŋ    koŋ
thus   DET. NON-HUM. SG.

'*Since you are outdoors you have grown to this (size).*'

[ kɔ̃nə ŋkɔ w̃ɛ̃ selle ŋ kjebe nɛŋ koŋ ]

$$\left[ -\ -\ ^{-\ -\ -}_{\ \ \ -}\ \ _{-}^{-}\ -\ \ _{-} \right]$$

Since Koromfe has no tones §3.3.3.11 is inapplicable.

### 3.3.4.1 Intonation patterns

The intonation patterns expressing text-semantic, text-pragmatic and emotional functions are numerous and could not be satisfactorily investigated

432

under the given circumstances (i.e. without direct observation of real communication). The intonation types described here are therefore restricted to the most common ones. Further work on intonation is necessary.

### 3.3.4.1.1 Statement intonation

The normal intonation contour for a statement is a gradual fall in pitch of the successive phrase-stressed vowels from the beginning of the sentence onwards. Some simpler examples were given in (856)–(857); in (858)–(859) (which are consecutive passages of a single text) a longer sequence of clauses is transcribed. Here we see the typical Koromfe intonation pattern, with a sharp rise from a mid to a high pitch for the phrasally stressed syllable, followed by a gradual fall up to the end of the phrase.

(858)   *The pitch pattern of the sentence:*[64]

| ɱ | bi | vere | a | hem | ni |
|---|---|---|---|---|---|
| PRON. 2SG. | child + SG. | raise + PAST | ART. | water + SG. | in (POSTPOS.) |

| də | | zɔmm(ɔ̃) | də | | kebsu |
|---|---|---|---|---|---|
| PRON. 3SG. HUM. | | want + DUR. | PRON. 3SG. HUM. | | grow |

*'If your child is raised in the water he will grow.'*

[ ɱ bi vere a hem ni   də zɔmmə də kjebsu ]

$$\left[\begin{matrix} - & -- - & - & & & & & \\ - & & & _ & - & ^- & & _ & - & _ \end{matrix}\right]$$

(859)   *The pitch pattern of the sentence:*[65]

| ŋkɔ | | nãã | də | | fɛndɛ | ka |
|---|---|---|---|---|---|---|
| DISJ. PRON. 2SG. | | see | PRON. 3SG. HUM. | | day (SG.) | that...not (NEG. CONJ.) |

| m | bo | ke | ŋkɔ | | bi | hoŋ |
|---|---|---|---|---|---|---|
| PRON. 2SG. | say | that (CONJ.) | DISJ. PRON. 2SG. | | child + SG. | DET. 3SG. HUM. |

| dɔ | ŋkɔ | | bi | hoŋ |
|---|---|---|---|---|
| NEG. COPULA | DISJ. PRON. 2SG. | | child + SG. | DET. 3SG. HUM. |

| də | kebei | la | də | | hãnãĩ |
|---|---|---|---|---|---|
| PRON. 3SG. HUM. | size (SG.) | and | PRON. 3SG. HUM. | | beauty + SG. |

'The day you see him, don't say that that is not your child. His size and his beauty!'

[ ŋkɔ nãã də fɛndɛ ka m bo ke hoŋ dɔ ŋkɔ bi hoŋ — də kjebei la də hãnãĩ ]

$$\left[\begin{matrix} - & - & - & _ & _ & _ & & ^- & - & - & - & _ & _ & _ & & _ & - & ^- & - & _ & - \end{matrix}\right]$$

### 3.3.4.1.2 Yes-no question intonation

The intonation of yes-no questions is identical to that of statements exemplified above, with the exception that the sentence-final question particle (such as [bɪ]) can optionally have a high pitch, and is often lengthened. Both modifications imply a more insistent kind of questioning.

### 3.3.4.2 The intonation peak in normal (non-contrastive, non-emphatic) intonation

Normally the first stress-phrase of the word receives the intonational peak. In non-contrastive, non-emphatic sentences this is either an adverbial or the subject NP.

### 3.3.4.3 Emphatic intonation

All emphatic intonations involve giving phrasal stress to some phrase in the sentence. The greater the emphasis, the more prominent the pitch differential.

### 3.3.4.4 Contrastive (phrasal) stress

Normally, only one element in a sentence can have contrastive phrasal stress. As with all other stress types, contrastive stress is effected by giving phrasal stress to some phrase in the sentence, as exemplified above.

Since intonation and phrasal stress involve the same mechanisms, §3.3.4.5–6 are inapplicable.

### 3.3.4.7 Vowel length and stress

The only effect of the position of the intonation peak or contour on segmental units is the shortening of some word-final long vowels (such as that in [saa] 'owner' or DURATIVE verb forms with a final [aa]) when they are not in the syllable which receives phrase stress (cf. §3.3.2.2.2 above).

# 3.4 Morphophonology (segmental)

In this section phonological processes are described which involve neighbouring segments, at least in the phonetic realization.[66] Since the affected segments are almost always located in morphemes present in native Koromfe words only, none of these processes apply to recent loans.

## 3.4.1 Assimilatory and dissimilatory processes

### 3.4.1.1 Assimilation

There is a large number of assimilations, classified here according to the affected segment(s).

### 3.4.1.1.1 Assimilation affecting vowels

There are no assimilation processes affecting the colouring (roundbackness vs. frontness) of vowels apart from the 'colour harmony' process described in §3.2.6.4.2. Two processes affect vowel height, each of them lowering high vowels to mid. However, the lowering of high vowels to mid in UNMARKED verb forms with the shape CV in conjunction with the deletion of the following article *a* is dealt with as a fusion (coalescence) process in §3.4.3.2.2 below.

There are no processes which raise vowels and none which lower (high or mid) vowel to low.

### 3.4.1.1.1.1 Lowering and nasalization of vowels after nasal vowels or consonants[67]

Although they are separate processes, the lowering and nasalization of high vowels after nasal segments usually occur together,[68] and therefore are dealt with here at one go.

Every high vowel, with the exception of front tense /i/, is generally lowered to mid after any nasal segment (vowel or consonant). Front tense /i/ is not usually lowered,[69] even when it is nasal. The process has a few exceptions dealt with below.

The vowels lowered by this process, and also lexical mid vowels, are nasalized if they a) are back or b) follow a (nasal) vowel. In other words, the short vowel [ɛ] lowered from /ɪ/ after a nasal consonant is the only vowel which never nasalizes (although long [ɛ̃ɛ̃] does — see below).[70]

These two processes cause alternations both in 'epenthetic' final vowels resulting from 'phrase-final filling' and described in §3.2.6.4.2.2 above, where examples are given. In such words, both lowering and nasalization are obligatory (with the exception of the failure of nasalization of short [ɛ]).

We therefore concentrate here on some of the noun class suffixes. Conspiratorially, there are no native words which take a -ʊ class suffix that have a nasal stem-final segment.[71]

The words in (860) show the nasalization of the singular human noun class suffix -ɔ (here on deverbal agent nouns), whose vowel is already mid and therefore not susceptible to further lowering; there is no nasalization of any part of the corresponding plural suffix -ba.

(860)   *Nouns in the ɔ/ba 'human' class which undergo nasalization of the singular suffix*[72]

| singular | plural | gloss |
|----------|--------|-------|
| dɔmmɔ̃ | dɔmmba | 'drummer' |
| gɔmmɔ̃ | gɔmmba | 'hunter' |
| jɛ̃ĩnɔ̃ | jɛ̃ĩnəba | 'catcher' |
| jɔ̃nɔ̃ | jɔ̃nəba | 'drinker' |
| jommõ | jommbʌ | 'follower' |
| sammɔ̃ | sammba | 'someone who washes' |
| sɛrəɣɛmɔ̃ | sɛrəɣɛmba | 'story-teller' |
| sɔ̃nɔ̃ | sɔ̃nəba | 'weaver' |
| wɔlɔmɔ̃ | wɔlɔmba | 'chatterbox' |
| zoromõ | zorombʌ | 'beggar' |

The -ɪ class suffix of some singulative/mass nouns (which is probably the -ɪ of the gʊ/ɪ noun class) nasalizes after a nasal vowel of CV word stems, as shown in (861a). Strangely, the word [fãĩ] 'millet porridge', which seems to parallel these forms, does not lower; it also has no singulative form.

Words of the same morphological type with a stem-final consonant do not nasalize (thus conforming with the general failure of nasalization of short /ɛ/), even when the word has tense (ATR) vowels, as can be seen in (861b).

(861)   *Singulative/mass nouns with (what seems to be) the -ɪ suffix of the* ɡʊ/ɪ *noun class:*
        a) *Vowel-final word stems*

| singulative | plural/mass | gloss |
|---|---|---|
| bʊfãɛ̃fɛ | bʊfãɛ̃ | 'kind of bush' |
| kɔ̃ɛ̃fɛ | kɔ̃ɛ̃ | 'hair' |
| mũĩfe | mũĩ | 'rice' |
| tɔ̃ɛ̃fɛ | tɔ̃ɛ̃ | 'bee' |
| w̃ɔ̃ɛ̃fɛ | w̃ɔ̃ɛ̃ | 'grass'[73] |

b) *Consonant-final word stems*

| singulative | plural/mass | gloss |
|---|---|---|
| doŋfe | domi | 'snake'[74] |
| j̃ɛ̃nəfɛ | j̃ɛ̃nɛ | 'fish' |
| j̃ɔ̃nəfɛ | j̃ɔ̃nɛ | 'ant' |
| manəfɛ | manɛ | 'coin; money' |
| nãnəfɛ | nãnɛ | 'song' |

In the verbs, words whose stem has a sequence of vowels as in (861a) have free variation between the lowered and non-lowered form, with lowering more frequent in phonetic monosyllables and in faster or more casual speech. This leads to variants such as [h̃ɔ̃ɛ̃] vs. [h̃ɔ̃ĩ] 'grill!', and even to monophthongization of [j̃ɛ̃ĩ] 'catch!' to [j̃ɛ̃ɛ̃].

The -ɪ suffix of the ɡʊ/ɪ noun class proper sometimes lowers to [ɛ] but sometimes remains [ɪ] after nasal consonants. As usual, tense /i/ never lowers. I do not know what determines this behaviour.[75] Some relevant forms are given in (862a) (with lowering) and (862b) (without lowering).

(862)   *Nouns with the -ɪ plural class suffix:*
        a) *with post-nasal lowering but not nasalization*

| singular | plural | gloss |
|---|---|---|
| bɔ̃nɔ̃ŋ | bɔ̃nɛ | 'goat' |
| mɔ̃mɡʊ | mɔ̃mɛ | 'eel' |
| pɛryʊ | pɛ̃nɛ | 'cloth' |
| pɔŋɡʊ | pɔmɛ | 'mat' |
| sãnəyʊ | sãnɛ̃ɛ̃ | 'fibre (of bark)' |
| w̃ɔ̃nɔ̃ŋ | w̃ɔ̃nɛ | 'chicken' |

437

*b) without post-nasal lowering*

| singular | plural | gloss |
|---|---|---|
| bɪryʊ | bɪrɪɪ | 'second self' |
| dãŋ | dãĩ | 'house' |
| joroŋ | joroi | 'large pot' |
| komgu | komi | 'kind of tree' |
| kʊryʊ | kʊrɪɪ | 'handle' |
| lʌmporyu | lʌmpori | 'kind of tree' |
| maryʊ | marɪɪ | 'cave' |
| mɛryʊ | mɛrɪɪ | '(a) cold' |
| nʊŋgʊ | nʊmɪ | 'millstone' |
| poyu | poi | 'claw' |

The situation with the plural suffix -nɪ of the diminutive class *ga/nɪ* is equally unclear as regards lowering: most words lower (except, as ever, the tense vowel [i]), but several do not. However, none of the vowels nasalize. Some representatives of each type are given in (863).

(863)  *Nouns with the -nɪ 'diminutive' plural class suffix (which never has nasalization of its vowel):*
     *a) with post-nasal lowering*[76]

| singular | plural | gloss |
|---|---|---|
| bʊkʊ | bʊgənɛ | 'shoulder' |
| fɪllɔ | fɪllənɛ | 'birthday' |
| gɔmǝŋa | gɔmǝnɛ | 'tambourine' |
| sabǝya | sabǝnɛ | 'pickaxe' |
| sɪlsaka | sɪlsagǝnɛ | 'kind of musical instrument' |
| tɔbǝya | tɔbǝnɛ | 'small axe' |
| tʊka | tʊgǝnɛ | 'kind of hangar' |
| vɛŋa | vɛŋǝnɛ | 'rain' |
| walǝya | walǝnɛ | 'rat' |

*b) without post-nasal lowering*

| singular | plural | gloss |
|---|---|---|
| dʊmbǝya | dʊmbǝnɪ | 'piece' |
| hɔndǝya | hɔndǝnɪ | 'navel' |
| hʊkʊ | hʊgǝnɪ | 'kind of lizard' |
| jeryʌ | jerǝni | 'rabbit' |

| singular | plural | gloss |
|---|---|---|
| kifeɲʌ | kifeni | 'small calabash' |
| kʊməŋa | kʊmənɪ | 'short' |
| tɪtɔka | tɪtɔgənɪ | 'hammer' |
| w̃ũməɲʌ | w̃ũməni | 'deaf' |

The situation with the derivation-cum-class suffix -*ɪɪ* which derives abstract nouns of quality from concrete nouns and adjectives is surprisingly clear: this suffix always nasalizes and lowers to [ɛ̃ɛ̃] after a nasal consonant. However, the number of occurrences of this long version of the suffix following non-nasal consonants is very small. Examples are given in (864).

(864)  *Nouns with the* -ɪɪ *derivational-cum-class suffix:*
       *a) with nasalization and post-nasal lowering*

| singular | gloss | singular | gloss |
|---|---|---|---|
| bɛnnɛ̃ɛ̃ | 'masculinity' | kɪzamɛ̃ɛ̃ | 'ugliness' |
| dɔ̃ndəmɛ̃ɛ̃ | 'goodness' | pɔ̃nəmɛ̃ɛ̃ | 'whiteness' |
| fɔ̃nnɛ̃ɛ̃ | 'fear' | pɔtəmɛ̃ɛ̃ | 'abundance' |
| kaɪmɛ̃ɛ̃ | 'old age' | zamɛ̃ɛ̃ | 'badness' |
| kannɛ̃ɛ̃ | 'bitterness' | | |

*b) without nasalization or post-nasal lowering*

| singular | gloss | singular | gloss |
|---|---|---|---|
| sɔbɪɪ | 'hunting' | wʊrfɪɪ | 'smallness' |

Despite the many counterexamples in the noun class suffixes, it seems that the post-nasal nasalization and lowering process were once quite general in the language, although only the above type of data shows any alternations. The effects of the nasalization and lowering processes can be seen in the distribution of word-initial 'nasal + vowel' sequences, where only a single native word resists lowering and nasalization of /ʊ/ after word-initial /n/, namely [nʊŋgʊ], PL. [nʊmɪ] 'millstone'. The plural suffix of this word is also not lowered; but interestingly the (morphologically regular) verb [nɔ̃mam] 'pound' which has the same stem is subject to both processes.[77]

Finally, there also exist nasalization processes which affect consonants following nasal segments (cf. §3.4.1.1.2.1 below) and long-distance na-

salization assimilation from consonant to consonant (cf. §3.4.1.1.2.2). These nasalized consonants can in turn nasalize following vowels, so that in effect long stretches of a word, or even the whole word can be successively nasalized. Consider the singular form of the word [w̃ɔ̃nɔ̃ŋ], PL. [w̃ɔ̃nɛ] 'chicken'. Its lexical form is probably something like /w̃ɔd+gʊ/, with only a single nasal segment — the first vowel. This nasalizes the following consonants,[78] giving[79] /w̃ɔ̃nŋʊ/. The sequence [ŋʊ] is illicit,[80] and the /ʊ/ must drop, giving /w̃ɔ̃nŋ/. The final empty nucleus cannot be filled by phrase-final filling, since this would again produce illicit [ŋʊ]; the preceding empty nucleus (between /n/ and /ŋ/) must therefore be filled, and the colour-harmonized full vowel /ɔ/ appears, giving /w̃ɔ̃nɔŋ/. This vowel is then promptly nasalized after the nasal consonant /n/, giving the actual phonetic form [w̃ɔ̃nɔ̃ŋ]. Koromfe has a fair number of words which follow this pattern in the singular of the *gʊ/ɩ* noun class; in verbs, on the other hand, a disyllabic word with a final [ŋ] is impossible.

### 3.4.1.1.2 Assimilation affecting consonants

The sporadic assimilation of noun-stem-final consonants to the place of articulation of suffix-initial consonants is not dealt with here but in §3.4.3.1 on coalescence, to avoid duplication of the examples.

### 3.4.1.1.2.1 Nasalization of consonants after nasal vowels

In native vocabulary, all oral voiced non-fricative consonants (i.e. the lenis stops /b,d,g/ and the lateral approximant /l/) which occur in phonetically intervocalic positions (i.e. between two full vowels) are nasalized when they follow a nasal vowel or consonant (compare also the corresponding phonotactic restriction described in §3.2.6.3 above). However, the fricatives and the voiceless (fortis) stops never nasalize in any context, although they do occur after nasal vowels and consonants (e.g. in [w̃ɔ̃fʊ] 'have' (DUR.), [sɔ̃sam] 'redden' and [h̃ɔ̃kam] 'scratch').

The labial voiced (lenis) stop [b] is rare in medial positions apart from in the noun class suffix *-ba*, and there is no clear evidence of nasalization. Nevertheless, there are no native Koromfe morphemes with a sequence 'nasal vowel plus voiced stop' (those sequences which do exist sound distinctly Mòoré-like, as in [kɔ̃brɛ] 'bone', [fɔ̃rɩ] 'marriage', [bãɣam] 'to weed'); instead, a nasal vowel is typically followed by a nasal stop.

Let us first consider the cases in which nasalization takes place without exception. One such context is the DURATIVE and PROGRESSIVE verb form. Some relevant examples are given in (865). Forms like *[dɔ̃ĩdaa] or *[dɔ̃ĩraa] for [dɔ̃ĩnaa] 'join' are quite impossible and sound completely strange to the language as PROGRESSIVE verb forms (even though the phonetic sequence [məd] or [md] exists in some nouns like [sɔmdɛ] 'red' (SG.)).

(865)    *Verb forms demonstrating nasalization of the PROGRESSIVE suffix* -daa *after a
          stem-final nasal vowel:*
          *a) Forms with nasalization*

| unm. | prog. | gloss | unm. | prog. | gloss |
|------|-------|-------|------|-------|-------|
| dɔ̃ | dɔ̃naa | 'dream' | nɛ̃ | nɛ̃naa | 'defecate' |
| dɔ̃ĩ | dɔ̃ĩnaa | 'join' | sã | sãnaa | 'jump' |
| h̃ɔ̃ĩ | h̃ɔ̃ĩnaa | 'roast' | sɔ̃ | sɔ̃naa | 'weave' |
| j̃ɛ̃ĩ | j̃ɛ̃ĩnaa | 'catch' | | | |

          *b) Forms without nasalization (and /d/ realized as [r])*

| unm. | prog. | gloss | unm. | prog. | gloss |
|------|-------|-------|------|-------|-------|
| da | daraa | 'gain' | li | lirʌʌ | 'forget' |
| dɪ | dɪraa | 'eat' | sɔɪ | sɔɪraa | 'split' |
| gɔ | gɔraa | 'go back' | tu | turʌʌ | 'paint' |
| jɛɪ | jɛɪraa | 'waste' | | | |

The nasalization process is inhibited if the consonant concerned is followed by [f].[81] Thus the PROGRESSIVE form of the verb whose UN-MARKED form is [h̃ɔ̃ŋɔ̃] 'have' turns out as [h̃ɔ̃ɣfaa] and not *[h̃ɔ̃ŋfaa]. This alternation, minor though it is, shows that the otherwise purely distributional evidence for this process (based on suffix allophony) is correct. There exist only three such alternating words in my corpus, given in (866), all with the same phonological shape except for the first consonant. However, there are no other words of any provenience which have a phonetic transsyllabic sequence *[ṼŋfV] (although [VŋfV] with an oral first vowel does occur; but in such cases the [ŋ] is lexical, and does not result from nasalization).

(866)    *Words with inhibition of the nasalization of phonetic syllable-final /g/ to [ŋ]
         before /f/*

| unmarked | progressive | gloss |
|----------|-------------|-------|
| h̃ɔ̃ŋɔ̃ | h̃ɔ̃ɣfaa | 'have' |
| ɟ̃ɔ̃ŋɔ̃ | ɟ̃ɔ̃ɣfaa | 'milk' |
| ñɔ̃ŋɔ̃ | ñɔ̃ɣfaa | 'mount' |

### 3.4.1.1.2.2 Nasalization of consonants after nasal consonants (onset-to-onset nasalization)[82]

The consonants nasalized by this process are always alveolar — either /d/ or /l/, and the result of nasalization is always [n].[83] However, this fact is probably an accidental outcome of the relatively meagre distribution of non-alveolar consonants in the suffixes, rather than a matter of phonological constraints.[84]

A nasal consonant (whether lexical or nasalized by the preceding vowel) in the onset of a second syllable triggers the nasalization of a voiced (lenis) stop or /l/ in the onset of the following syllable, whether or not the intervening vowel is phonetically realized. Only the 'homorganic nasal + voiced stop' configuration inhibits nasalization,[85] (as can be seen in the words in (867) ending in [ndaa]). Both syllables are phonologically open, i.e. consist of a single onset consonant followed by a single full, schwa or mute[86] vowel. Phonetically, the resulting nasalized consonant may be 'syllable final' (PROGRESSIVE forms in (867)) or 'syllable initial' (PAST forms in (867)); phonologically, nasalization is from onset to onset, irrespective of the nasality or orality of the intervening vowels. The examples in (867) show nasalized realizations of the same phonological consonant /l/ (which is realized as [n]). For comparison, some non-nasalizing words are given in (868).

(867)    *Words with nasalization from 2nd-syllable onset to 3rd-syllable onset (here, of
         the /l/ of the -Vl suffixoid to [n]). (Suffixes: PAST -ɛ, PROGRESSIVE -daa.):
         a) Words with an oral first vowel (the only 4 words in my corpus)*[87]

| lex. stem[88] | unmarked | past | prog. | gloss |
|---------------|----------|------|-------|-------|
| /hamVl/ | hama | haməne | hamandaa | 'believe' |
| /bunVl/ | buno | bunne | bunondʌʌ | 'steal'[89] |
| /tɔŋVl/ | tɔŋɔ | tɔŋəne | tɔŋɔndaa | 'light' |
| /zaŋVl/ | zaŋa | zaŋəne | zaŋandaa | 'ask for' |

*b) Words with an nasal first vowel (the only 3 words in my corpus)*

| lex. stem | unmarked | past | prog. | gloss |
|-----------|----------|------|-------|-------|
| /fɔ̃ŋVl/ | fɔ̃ŋɔ̃ | fɔ̃ŋənɛ | fɔ̃ŋɔ̃ndaa | 'rest' |
| /dɔ̃mVl/ | dɔ̃mɔ̃ | dɔ̃mənɛ | dɔ̃mɔ̃ndaa | 'hear' |
| /zɔ̃ŋVl/ | zɔ̃ŋɔ̃ | zɔ̃ŋənɛ | zɔ̃ŋɔ̃ndaa | 'bring back' |

(868)  *Words with -Vl suffixoid without onset-to-onset nasalization. (Suffixes: PAST -ɛ, PROGRESSIVE -daa — 4 out of many words of this type.)*

| lexical | unmarked | past (suffix -ɛ) | prog. (suffix -daa) | gloss |
|---------|----------|------------------|---------------------|-------|
| /daɣVl/ | daɣa | daɣəlɛ | daɣalaa | 'wait' |
| /gɔndVl/ | gɔndɔ | gɔndəlɛ | gɔndɔlaa | 'deform'[90] |
| /hubVl/ | hubo | hubəle | hubolʌʌ | 'wash' |
| /vabVl/ | vaba | vabəlɛ | vabalaa | 'hit' |

The nasalization of /d/ for which we have any alternation evidence is restricted to cases where /d/ is suffix-initial and therefore the resulting [n] is phonetically in syllable-final position. Examples are given in (869a) with oral first-syllable vowels and in (869b) with nasal vowels.

(869)  *Verb forms demonstrating nasalization of the /d/ of the PROGRESSIVE suffix -daa after a stem-final nasal consonant. (Suffixes: PAST -ɛ, PROGRESSIVE -daa):*
  *a) with a preceding oral vowel*

| lex. stem | unm. | past | prog. | gloss |
|-----------|------|------|-------|-------|
| /gan/ | gan | ganɛ | gannaa | 'bandage' |
| /gaŋ/ | gaŋ | gaŋɛ | gaŋənaa | 'refuse' |
| /min/ | min | mine | minnʌʌ | 'submerge' |
| /nɛŋ/ | nɛŋ | nɛŋe | nɛŋənaa | 'water' |
| /hen/ | hen | hene | hennʌʌ | 'spread out' |
| /ken/ | ken | kene | kennʌʌ | 'strangle' |
| /kon/ | kon | kone | konnʌʌ | 'put' |

*b) with a preceding nasal vowel*

| lex. stem | unm. | past | prog. | gloss |
|-----------|------|------|-------|-------|
| /dɔ̃m/ | dɔ̃m | dɔ̃mɛ | dɔ̃mmaa | 'bite' |
| /fɛ̃ŋ/ | fɛ̃ŋ | fɛ̃ŋe | fɛ̃ŋənaa | 'leave over'[91] |
| /kɔ̃ŋ/ | kɔ̃ŋ | kɔ̃ŋɛ | kɔ̃ŋənaa | 'age' |
| /mɛ̃ŋ/ | mɛ̃ŋ | mɛ̃ŋɛ | mɛ̃ŋənaa | 'remain' |

| lex. stem | unm. | past | prog. | gloss |
|---|---|---|---|---|
| /w̃ãŋ/ | w̃ãŋ | w̃ãŋɛ | w̃ãŋənaa | 'break' |
| /w̃ɔ̃m/ | w̃ɔ̃m | w̃ɔ̃mɛ | w̃ɔ̃mmaa | 'chew' |
| /w̃ũn/ | w̃ũn | w̃ũne | w̃ũnnʌʌ | 'return home' |

In the nouns there is onset-to-onset assimilation of the singular noun class suffix *-dɛ* in a few words; but the majority of words resist this assimilation.[92] None of the assimilating words have a 'stem-final' velar nasal; even in the far larger non-assimilating type [ŋ] is rare. Examples of assimilating and non-assimilating words are given in (870a) and (870b) respectively

(870)   *Nouns with and without nasalization of the /d/ of the singular noun class suffix*
   *-dɛ after a stem-final nasal consonant. (Plural suffix: -a.):*
   *a) words with nasalization (very few in number)*

| lex. stem | sing. | plur. | gloss |
|---|---|---|---|
| /dumm/ | dumməne | dummʌ | 'knee' |
| /sẽm/ | sẽmnɛ | sẽmĩã | 'kind of tree' |
| /kon/ | konne | konʌ | 'door' |
| /kun/ | kunne | kunʌ | 'village' |

*b) words without nasalization (numerous)*

| lex. stem | sing. | plur. | gloss |
|---|---|---|---|
| /dʊm/ | dʊmdɛ | dʊma | 'lion' |
| /hulom/ | hulomde | hulomʌ | 'marrow' |
| /loɣom/ | loɣomde | loɣomʌ | 'camel' |
| /pɔ̃m/ | pɔ̃mdɛ | pɔ̃ma | 'nose' |
| /sam/ | samdɛ | sama | 'arrow' |
| /sɛm/ | sɛmdɛ | sɛma | 'fence' |
| /w̃ɔ̃m/ | w̃ɔ̃mdɛ | w̃ɔ̃ma | 'monkey' |
| /bɪn/ | bɪndɛ | bɪna | 'heart' |
| /bɔ̃n/ | bɔ̃ndɛ | bɔ̃na | 'grain container' |
| /bʊn/ | bʊndɛ | bʊna | 'grain container' |
| /h̃ɔ̃n/ | h̃ɔ̃ndɛ | h̃ɔ̃na | 'hoe' |
| /hon/ | honde | honʌ | 'bean' |
| /j̃ãn/ | j̃ãndɛ | j̃ãna | 'millet' |
| /geŋ/ | geŋde | geŋʌ | 'pebble' |

| lex. stem | sing. | plur. | gloss |
|---|---|---|---|
| /tɔŋ/ | tɔŋdɛ | tɔŋa | 'hole' |
| /zɛŋ/ | zɛŋdɛ | zɛŋa | 'upper arm' |
| /zɔŋ/ | zɔŋdɛ | zɔŋa | 'space' |

The suffix -*dɛ* does not nasalize in the two words in my corpus with two phonetic syllables before the suffix (given in (871)). The nature of the 'stem-final' consonant is puzzling: I know of no decisive arguments to choose between the segments /l,d,n/, and no choice explains why this consonant is not realized phonetically in the plural form.

(871) *Nouns without nasalization of the /d/ of the singular noun class suffix* -dɛ *after phonetically disyllabic word stems (the only 2 forms in my corpus)*

| lex. stem | sing. | plur. | gloss |
|---|---|---|---|
| /h̃ɛmVC/ (?) | h̃ɛmɛ̃ndɛ | h̃ɛmɛ̃j̃ã | 'crocodile' |
| /tɔ̃mVC/ (?) | tɔ̃mɔ̃ndɛ | tɔ̃mɔ̃ja | 'large ant' |

Other suffixes beginning with voiced (lenis) stops also sometimes nasalize. However, there is often no nasal segment in the word stem which could trigger the nasalization. Such forms are described in §3.4.6.1 below.

### 3.4.1.1.2.3 Assimilation of suffixal /d/ to the manner of articulation of the preceding onset

The suffix-initial /d/ of the singular noun class suffix -*dɛ* and the DURATIVE and PROGRESSIVE aspect suffixes -*d* and -*daa* assimilate to the manner of articulation of a preceding 'stem-final' nasal consonant or /l/. The nasalization process was described in §3.4.1.1.2.1 above; here only the assimilation to /l/ will be described. Some relevant data of singular nouns are given in (872) below and of PROGRESSIVE verbs in (873).[93]

(872) *Nouns with total assimilation of the /d/ of the singular noun class suffix* -dɛ *to a stem-final /l/ (large number of words). (Plural suffix: -*a.)

| lex. stem | sing. | plur. | gloss |
|---|---|---|---|
| /bɛl/ | bɛllɛ | bɛla | 'back' |
| /bul/ | bulle | bulo | 'dam' |
| /dɔl/ | dɔllɛ | dɔla | 'hill' |
| /jɪl/ | jɪllɛ | jɪla | 'horn' |
| /pal/ | pallɛ | pala | 'stretcher' |
| /pʊl/ | pʊllɛ | pʊla | 'stick' |

| lex. stem | sing. | plur. | gloss |
|-----------|-------|-------|-------|
| /sel/ | selle | selʌ | 'space' |
| /tul/ | tulle | tulʌ | 'rear' |
| /wol/ | wolle | wala | 'foot' |

(873)  *Verbs with total assimilation of the /d/ of the* PROGRESSIVE *suffix -daa to a stem-final /l/ (fairly large number of words)*

| lex. stem | unm. | past | prog. | gloss |
|-----------|------|------|-------|-------|
| /dol/ | dol | dole | dollʌʌ | 'buy, sell' |
| /gal/ | gal | galɛ | gallaa | 'have plenty' |
| /gel/ | gel | gele | gellʌʌ | 'know' |
| /hol/ | hʊl | hʊlɛ | hʊllaa | 'give birth' |
| /hul/ | hulu | hule | hullʌʌ | 'drip' |
| /kal/ | kalɪ | kalɛ | kallaa | 'count' |
| /kɛl/ | kɛlɪ | kɛlɛ | kɛllaa | 'close' |
| /pɪl/ | pɪlɪ | pɪlɛ | pɪllaa | 'trample' |
| /sol/ | sol | sole | sollʌʌ | 'fall' |
| /wɔl/ | wɔl | wɔlɛ | wɔllaa | 'work' |

The assimilation of suffix-initial /d/ to [l] is always blocked if the stem-final /l/ is a geminate, although there are only few words with such a stem shape. A noun example is [bollre], PL. [bollʌu] 'hole' (with the stem /boll/) and a verb example [bɛllɪ] (UNM.), PAST [bɛllɛ], PROG. [bɛllrɪ] 'to fan'.

There is no geminate [ll] intervocalically in PROGRESSIVE and DU-RATIVE forms of verbs with the -*Vl* suffixoid. Instead, a single [l] is found, as in [daɣalaa] (PROG.). This realization is exceptionless within this (fairly common) class of verbs. Why this should happen is not completely clear to me, but it is probably related to the loss of (expected) final [l] in the UNMARKED form of these words, and seems to be a constraint on the complexity of 'non-first syllables'. Further examples can be found in (868) above.

### 3.4.1.1.2.4 Assimilation of suffixal /d/ to the place of articulation of the preceding onset

Those suffix-initial /d/'s which nasalize by the process described in §3.4.1.1.2.3 above also quite regularly assimilate to the place of articulation of the 'stem-final' (nasal) consonant of verb stems, resulting in pho-

netic geminate [mm]'s for the labials. With the velar place of articulation one of two things can happen, neither of which results in a geminate [ŋŋ], since such geminates do not exist in Koromfe. Either the expected geminate is simplified[94] to a single [ŋ] (the less common case), or the nasalized /d/ is realized as alveolar [n], i.e. without assimilation of the place of assimilation. Examples of simplification are given in (874); examples of non-assimilation (as in [fẽŋənaa] (PROG.)) can be found in (855) and (869) above. Interestingly, two of the verbs with simplification in the PRO-GRESSIVE form have non-assimilation in their DURATIVE form; this is the only case in my corpus where the PROGRESSIVE is not formally identical with the 'DURATIVE plus [aa]/[ʌʌ]'. For [boŋʌm] my informants could not come up with a DURATIVE form and substituted an equivalent form of the synonymous verb [boŋsʌm].

(874)  *Verb forms demonstrating the simplification of an expected geminate velar nasal (only 3 verbs in my corpus, all given here). (Suffixes: PAST -ɛ, PRO-GRESSIVE -daa, DURATIVE -d.)*

| lex. stem | unm. | past | prog. | dur. | gloss |
|-----------|------|------|-------|------|-------|
| /boŋ/ | boŋ | boŋe | boŋʌʌ | --- | 'love' |
| /jãŋ/ | jãŋ | jãŋɛ | jãŋaa | jãŋən(ɛ) | 'resemble' |
| /maŋ/ | maŋ | maŋe | maŋaa | maŋən(ɛ) | 'be equal' |

In nouns a suffix-initial /d/ **never** assimilates to the place of articulation of the preceding consonant, even though a few nasalize (cf. the examples in (870a) above). Examples of phonetic 'nasal consonant + [d]' sequences where the phonetic [d] results from suffix-initial /d/ were given in (870b). However, the simplification process evidenced by the verbs in (874) can also be found in a few nouns with the *-ga* class suffix (where, for example, expected *[kereŋkʌŋʌ] (by nasalization from /kereŋkʌŋ+ga/) surfaces as [kereŋkʌŋʌ] 'spirit of the bush'[95] with a single [ŋ].

## 3.4.1.2 Dissimilation

There exists a single clearly identifiable dissimilation process, which affects lexical /l/ of verbs with the *-Vl* suffixoid. This is realized as phonetic [d] when the consonant of the preceding onset is [r] (from /d/) or [l]. This evidence is, of course, purely distributional in nature. All the verbs in my corpus displaying this dissimilation are given in (875). There are no occur-

rences of intervocalic [d] in Koromfe that are not preceded by [l] or [r] (i.e. /d/) in the previous onset.

(875)    *Verbs with the -Vl suffixoid: dissimilation of /l/ to [d] after /l/ or /d/ (phonetic [r]) in the previous syllable onset. (All such verbs in my corpus are given here. Suffixes: PAST -ɛ, PROGRESSIVE -daa, DURATIVE -d.)*

| lex. stem | unm. | past | prog. | dur. | gloss |
|-----------|------|------|-------|------|-------|
| /belVl/ | bele | belede | beledʌʌ | beled(i) | 'sell on foot' |
| /dɪlVl/ | dɪlɛ | dɪlɛdɛ | dɪlɛdaa | dɪlɛd(ɪ) | 'feed' |
| /fedVl/ | fere | ferede | feredʌʌ | fered(i) | 'whistle' |
| /gilVl/ | gile | gilede | giledʌʌ | giled(i) | 'walk' |
| /kɛdVl/ | kɛrɛ | kɛrɛdɛ | kɛrɛdaa | kɛrɛd(ɪ) | 'carry' |
| /kʊdVl/ | kʊrɔ | kʊrɔdɛ | kʊrɔdaa | kʊrɔd(ʊ) | 'tie' |
| /zalVl/ | zala | zaladɛ | zaladaa | zalad(ɪ) | 'move (house)' |

Two nouns, [firede] 'dust' and [werede] 'poverty' both of which have only a singular form, look as if they also have a dissimilated /l/. Otherwise it would be difficult to explain the phonetic shape of these words, and we would have to admit these as exceptions to the distribution of /d/ (which otherwise is always realized as [r] intervocalically).

### 3.4.1.3 Other alternations

The alternations between full 'colour-harmonized' medial vowels and zero (optionally schwa) in the verbs with the -*Vl* suffixoid is analysed in detail in Rennison (1993), along with the alternation of [l] with zero in the UNMARKED form of such verbs. Relevant examples can be found in (867) and (868) above. For our present descriptive purposes, suffice it to say that these alternations exist and depend on the syllable structure created by the suffixes involved.

### 3.4.2 Metathesis processes

There are no metathesis processes, but words like [w̃ɔ̃nɔ̃ŋ], dealt with in §3.4.1.1.1.1 above might superficially seem to involve metathesis.

### 3.4.3 Processes of coalescence and split

*3.4.3.1 Coalescence of consonants*

*3.4.3.1.1 Homorganic voiced (lenis) stops*

Two voiced (lenis) stops coalesce to form a single voiceless stop when separated by an empty nucleus. No other consonants coalesce to form a single segment (though see the assimilation processes described above which produce geminate nasals and [ll]'s). This process is very common, and is exceptionless[96] when the two voiced stops are homorganic, and when the first is preceded by a full vowel. In the verbs, however, coalescence of /d+d/ to [t] takes place even when the preceding vowel is nasal (cf. forms like [dẽtaa] in (876) below), but in the nouns the preceding vowel must always be oral (see below). Yet some verbs also have a geminate [nn] in this position (e.g. [bɔ̃nnaa] as an alternative form for [bɔ̃taa] 'harvest' (PROG.) in (876)). Here we must assume that the form with geminate [nn] has a stem-final /n/ while the other form has /d/.

In the verbs, only /d/-initial suffixes have an initial voiced stop, and so, in contrast with the nouns, only the alveolar place of articulation is involved in the coalescence process. Examples are given in (876).

(876)  *Verbs with coalescence of two voiced (lenis) /d/'s to [t] over a 'stem — suffix' boundary (a common process). (Suffix: PROGRESSIVE -daa.)*

| stem | unm. | prog. | gloss | stem | unm. | prog. | gloss |
|------|------|-------|-------|------|------|-------|-------|
| /bɪd/ | bɪrɪ | bɪtaa | 'ripen' | /hɛd/ | hɛ̃n | hɛ̃taa | 'sew' |
| /bɔd/ | bɔ̃n | bɔ̃taa | 'harvest' | /hid/ | hiri | hitʌʌ | 'satisfy' |
| /dɛd/ | dɛ̃n | dɛ̃taa | 'pull' | /hʊd/ | hʊrʊ | hʊtaa | 'be angry' |
| /fad/ | farɪ | fataa | 'advance' | /jad/ | jarɪ | jataa | 'patient' |
| /fɛd/ | fɛrɪ | fɛtaa | 'cultivate' | /jɪd/ | jɪrɪ | jɪtaa | 'call' |
| /fod/ | foru | fotʌʌ | 'clean' | /jid/ | jiri | jitʌʌ | 'go down' |
| /gad/ | garɪ | gataa | 'cook' | /kãd/ | kãn | kãtaa | 'deviate' |
| /gʌd/ | gʌri | gʌtʌʌ | 'turn' | /wẽd/ | wẽn | wẽtaa | 'plait' |
| /gɪd/ | gɪrɪ | gɪtaa | 'judge' | /zɛd/ | zɛrɪ | zɛtaa | 'lose weight' |
| /had/ | harɪ | hataa | 'touch' | /zed/ | zeri | zetʌʌ | 'plant' |

The various noun class suffixes have three suffix-initial voiced stops /b,d,g/, and all three coalesce when attached to simple noun stems, though never when used as deverbal derivational suffixes (*-ba* for plural agent nouns, *-gʊ* for instrument and *-ga* for diminutive instrument nouns). Examples are given in (877) below. Note that this vowel is always oral in the

nouns, since otherwise the following consonant would have to nasalize by the process described in §3.4.1.1.2.1 above, and then coalescence could not take place (e.g. as in the word [jãndɛ] 'millet' from /jãn+dɛ/ or /jãd+dɛ/). This means that no Koromfe noun has a shape like *[jãtɛ] or *[bɔtɛ] with a nasal vowel followed by a fused /d+d/ (= [t]), parallel to the verb [bɔ̃taa] 'harvest' in (876) above.[97]

(877)   *Nouns illustrating the fusion (coalescence) of two homorganic geminate voiced stops to a single unlengthened voiceless stop. (A common process except with labials.)*[98]

| stem | sg. suffix | pl. suffix | sg. | pl. | gloss |
|------|------------|------------|-----|-----|-------|
| /sɔb/ | /ɔ/ | /ba/ | sɔbɔ | sɔpa | 'hunter' |
| /bɛd/ | /dɛ/ | /a/ | bɛtɛ | bɛra | 'male (animal)' |
| /bɪd/ | /dɛ/ | /a/ | bɪtɛ | bɪra | 'frog' |
| /dad/ | /dɛ/ | /a/ | datɛ | dara | 'chest' |
| /dɔd/ | /dɛ/ | /a/ | dɔtɛ | dɔra | 'cloud' |
| /dod/ | /dɛ/ | /a/ | dotɛ | dora | 'vagina' |
| /fid/ | /dɛ/ | /a/ | fite | firʌ | 'flower' |
| /ged/ | /dɛ/ | /a/ | gete | gerʌ | 'forked stick' |
| /god/ | /dɛ/ | /a/ | gote | gorʌ | 'stream' |
| /bʊg/ | /gʊ/ | /nɪ/ | bʊkʊ | bʊgənɛ | 'shoulder' |
| /hig/ | /ga/ | /nɪ/ | hikʌ | higəni | 'partridge' |
| /hʊg/ | /gʊ/ | /nɪ/ | hʊkʊ | hʊgəni | 'kind of lizard' |
| /jɪg/ | /ga/ | /nɪ/ | jɪka | jɪɣnɛ | 'face' |
| /tʊg/ | /ga/ | /nɪ/ | tʊka | tʊɣənɛ | 'kind of hangar' |

In words with a sequence of more than two consonants following the first full vowel, coalesced[99] or geminate consonants occur in the first possible position. If the following consonant is also 'fusible' (this only ever happens with /d/) it must have its normal single medial realization (i.e. [r]), as in the nouns in (877) and the verbs in (878). This constraint also applies if fusion or gemination were possible after some other assimilation process such as nasalization (in [w̃ɛnnraa]) or /d/ → [l] (as in [bɛllraa]).

(878) *Verbs illustrating the failure of fusion (coalescence) of /d/ after a voiced stop or geminate. (Several word forms, and an exceptionless constraint.)*

| unm. | prog. | gloss | unm. | prog. | gloss |
|------|-------|-------|------|-------|-------|
| w̃ɛnn(ɛ) | w̃ɛnnraa | 'plug'[100] | doɣt(u) | doɣtrʌʌ | 'cut' |
| babt(ʊ) | babtraa | 'lie in wait' | dʊbt(ʊ) | dʊbtraa | 'uproot' |
| bɛll(ɪ) | bɛllraa | 'fan' | gɔkt(ʊ) | gɔktraa | 'peck' |
| doll(u) | dollrʌʌ | 'put' | got(u) | gotrʌʌ | 'make rest' |
| gɪll(ɪ) | gɪllraa | 'intercept' | gubt(u) | gubtrʌʌ | 'assemble' |
| hell(i) | hellrʌʌ | 'fan' | haɪt(ɪ) | haɪtraa | 'remember' |
| tull(u) | tullrʌʌ | 'lower' | hɪt(ɪ) | hɪtraa | 'stop' |
| zull(u) | zullrʌʌ | 'bow' | hibt(u) | hibtrʌʌ | 'fill' |

### 3.4.3.1.2 Heterorganic voiced (lenis) stops

In two (arguably four) words, coalescence occurs between a labial voiced stop and a velar class-suffix-initial voiced stop /g/ of the singular suffix -*gʊ*, resulting in the phonetic realizations [k]. Despite the small number of forms which undergo it, this process is exceptionless in simplex nouns with this phonological pattern (i.e. /CVb+gʊ/). All the examples in my corpus are given in (879);[101] there are no nouns with anything like the final sequence [bəɣʊ]. Some non-assimilating, non-coalescing forms with the other /g/-initial suffix -*ga* (all such forms in my corpus) are given in (880) for comparison.

(879) *Nouns illustrating the exceptionless but extremely rare fusion (coalescence) of /b+g/ over the boundary of the noun class suffix /gʊ/ to a single unlengthened voiceless [k]. (All the forms in my corpus.)*

| stem | sg. | pl. | gloss |
|------|-----|-----|-------|
| /fɛb/ | fɛkʊ | fɛbɪ | 'tree' |
| /gɛb/[102] | gɛkʊ | --- | 'kind of millet flour' |
| /kɛb/ | kɛkʊ | kɛbɪ | 'field' |
| /zab/[103] | zakʊ | zapa | 'silly' |

(880) *Nouns illustrating the failure of fusion (coalescence) of /b+g/ over the boundary of the noun class suffix /ga/ (never /gʊ/) and their realization as [bəɣ]. (All the forms in my corpus.)*

| stem | sg. | pl. | gloss |
|------|-----|-----|-------|
| /dʊmbəga/ | dʊmbəɣa | dʊmbənɪ | 'piece' |
| /hambəga/ | hambəɣa | hambɪɪ | 'kind of fruit' |

| stem | sg. | pl. | gloss |
|------|-----|-----|-------|
| /kɔbəga/ | kɔbəɣa | kɔsəma | 'hundred' (Mòoré) |
| /lembəgʌ/ | lembəɣʌ | lembii | 'bird' |
| /nibəgʌ/ | nibəɣʌ | nibəni | 'grandchild' |
| /sabəga/ | sabəɣa | sabənɛ | 'pickaxe' |
| /tɔbəga/ | tɔbəɣa | tɔbənɛ | 'small axe' |

There exists a structurally similar process to the fusion of /b+g/ with the *-gʋ* suffix involving the nasal labial stop /m/ in place of the /b/. It is also extremely rare. The result of the process is phonologically the same as for /b+g/ → [k], i.e. ONO where N is an empty nucleus sandwiched between two onsets. Recall that 'nasal + lenis stop' and 'lenis + lenis stop' are the only such structures occurring in Koromfe which 'silence' an empty nucleus between two (otherwise) voiced consonants. Unlike the /b+b/ fusion, this process has one real counterexample with /gʋ/, and one with /ga/. The relevant forms are given in (881) and (882). Note that **this** process involves assimilation only, while /b+g/ → [k] has assimilation and (phonetic) coalescence.

(881)  *Nouns illustrating the exceptionless but extremely rare assimilation of /m+g/ over the boundary of the noun class suffix /gʋ/ to a [ŋg]. (All the forms in my corpus.)*

| stem | sg. | pl. | gloss |
|------|-----|-----|-------|
| /nʋm/ | nʋŋgʋ | nʋmɪ | 'millstone' |
| /pɔm/ | pɔŋgʋ | pɔmɛ | 'mat' |

(882)  *Nouns illustrating the failure of assimilation of /m+g/ over the boundary of the noun class suffixes /gʋ/ and /ga/. (All the forms in my corpus.)*

| stem | sg. | pl. | gloss |
|------|-----|-----|-------|
| /kom/ | komgu | komi | 'kind of tree' |
| /kudVm/ | kuromgʌ | kuromi | 'flying squirrel' |

Finally, for completeness' sake, I must mention a small but extremely regular set of nouns with a stem-final [ŋ]-[m] alternation but no /g/-initial singular class suffix. There exist only three such forms in my corpus,[104] all given in (883). There is only one counterexample to this pattern (i.e. with singular word-final [mfɛ], though in a word with three, not two phonetic syllables) — the word [koromfe] 'Koromfe'.

(883)  *Nouns with a stem-final [ŋ]-[m] alternation without a /g/-initial singular noun class suffix. Suffixes:* SG. -fɛ, PL. -ı. *(All the forms in my corpus.)*

| sg. | pl. | gloss |
|------|-------|---------|
| bɔŋfɛ | bɔmɛ | 'stake' |
| doŋfe | domi | 'snake' |
| saŋfɛ | samɛ | 'rib' |

### 3.4.3.1.3 Coalescence of /l+d/ to a single [l] or [d]

When a geminate [ll] is expected at a position later than the second phonetic syllable of the word, simplification to a single [l] occurs. This can be seen most clearly in the DURATIVE and PROGRESSIVE forms of verbs with the -Vl suffixoid (e.g. [daγali] (DUR.) and [daγalaa] (PROG.) 'wait' — further examples are given in (868) above). The same simplification occurs with the dissimilated variants of these verbs, exemplified in (875) above. Interestingly, the corresponding nasalized variants of the -Vl suffixoid with [nd] occur in full (e.g. [hamandɪ] (DUR.) and [hamandaa] (PROG.) 'think' — further examples in (867) above). A phonological account of this behaviour is given in Rennison (1993).

There also exist two nouns with phonetically disyllabic stems, both of them given in (884), which show coalescence of /l+d/ to a single [l] in the singular of the *dɛ/a* noun class. There are no words related to these in the language, so that the source of their (phonetically) disyllabic stem is unknown.

(884)  *Nouns with coalescence of /l+d/ to a single [l] in the singular (with suffix -dɛ). (All the forms in my corpus.)*

| stem | sg. | pl. | gloss |
|------|------|------|---------|
| /deŋgel/ or /deŋgVl/ | deŋgele | deŋgelʌ | 'open area' |
| /sembel/ or /sembVl/ | sembele | sembelʌ | 'piece' |

It might be that the nouns, [firede] 'dust' and [werede] 'poverty' described in §3.4.1.2 above result from this coalescence, but in addition show dissimilation from expected *firele* to [firede] (from /firVl+dɛ/).[105]

### 3.4.3.2 Coalescence of vowels

#### 3.4.3.2.1 Coalescence with preservation of length (2 nuclei)

Coalescence of vowels occurs only in conjunction with the morpheme *-am* of the gerunds or deverbal action nouns when the verb has a single open syllable (CV or, rarely, CVV) as its stem. The process produces a long mid vowel[106] when the stem vowel of the verb is high or mid, and a long low vowel when it is low (the last being consistent with, but not actually a case of, coalescence). The only diphthongs which occur in such verb stems are [ɛɪ] and its nasal counterpart [ɛ̃ɪ̃]; here coalescence also occurs, but only when the stem vowel is monophthongized; otherwise (though rarely, i.e. only in very careful speech) the /ɪ/ or /i/ final part of the diphthong is glided to [j] (nasalized to [j̃] if the diphthong is nasal), giving [jɛjam] 'waste' and [j̃ɛ̃j̃ãm] 'catch' for the two words in (885). Examples with all occurring stem vowels are given in (885); the UNMARKED forms show the nature of the stem syllable vowel. This coalescence is exceptionless,[107] and affects a fairly large number of words.[108]

(885)   *Verbs illustrating the coalescence of the gerund* -am *with CV verb stems. (Many word forms, and an exceptionless process.)*

| unm. (=stem) | past[109] | gerund | gloss |
|---|---|---|---|
| da | da / daɛ | daam | 'win' |
| dɪ | dɛ | dɛɛm | 'eat' |
| dʊ | dɔ / dɔɛ | dɔɔm | 'throw' |
| fu | fo / foe | foom | 'drag' |
| gɔ | gɔ / gɔɛ | gɔɔm | 'go back' |
| jʊ | jɔ / jɔɛ | jɔɔm | 'jump' |
| kʊ | kɔ / kɔɛ | kɔɔm | 'kill' |
| li | le | leem | 'forget' |
| ta | ta / taɛ | taam | 'shoot' |
| sã | sã / sãɛ̃ | sããm | 'jump' |
| nɛ̃ | nɛ̃ | nɛ̃ɛ̃m | 'defecate' |
| dɔ̃ | dɔ̃ / dɔ̃ɛ̃ | dɔ̃ɔ̃m | 'dream' |
| jɛɛ / jɛɪ | jɛɛ / jɛjɛ | jɛɛm | 'waste' |
| j̃ɛ̃ɛ̃ / j̃ɛ̃ɪ̃ | j̃ɛ̃ɛ̃ / j̃ɛ̃j̃ɛ̃ | j̃ɛ̃ɛ̃m | 'catch' |

#### 3.4.3.2.2 Coalescence without preservation of length (1 nucleus)

The same verbs with CV stems which in (885) coalesced with length pres-ervation in the GERUND also occur (along with all other words with a lexi-

cal full final vowel) in the coalescence process which results in a short vowel. This process involves vowel-final[110] words followed by the pre-nominal article *a* or the question-word *ase* 'what'[111] and vowel-final verb stems followed by the PAST suffix -ɛ. In both variants of the process the resulting vowel is mid if the first of the original vowels was high; otherwise the resulting vowel has the same height as the first of the original vowels. In the PAST verb forms, the combination /a+ɛ/ in careful speech results in a slightly raised [a] (though not so high as English [æ]) or a slightly diphthongized variant similar to [aɛ] but short. The diphthongs involved in this process behave as before: either they are monophthongized or they have a glide [j]. Examples of PAST verb forms were given in (885). When the second vowel of the coalescence is /a/, only the high first vowels can be said to coalesce in the strict sense; mid and low vowels appear (phonetically) to simply delete the following /a/. Sentences involving coalescence with the article *a* and the question-word *ase* are given in (886)–(889).

(886) *phonetic:*    na             kure                      dɪo
                     PRON. 2PL.    begin + PAST + ART.    eating (SG.)

      *morphemic:*   na             kure          a       dɪo
                     PRON. 2PL.    begin + PAST   ART.   eating (SG.)

                     'You started eating'

(887) *phonetic:*    ala           la        dɛ             mũĩ
                     who (QU.)    EMPH.    eat + ART.      rice

      *morphemic:*   ala           la        dɪ    a       mũĩ
                     who (QU.)    EMPH.    eat   ART.    rice

                     'Who ate rice?'

(888) *phonetic:*    mə                        pa      gɔ                                    mũĩ
                     DISJ. PRON. 1SG.        give    PRON. 3SG. NON-HUM. + ART.    rice

      *morphemic:*   mə                        pa      gʊ                            a        mũĩ
                     DISJ. PRON. 1SG.        give    PRON. 3SG. NON-HUM.        ART.    rice

                     I gave it some rice. *(Here 'it' refers to a dog.)*

455

(889)  *phonetic:*  ɱ̩         vaɣa      kɔse
                    PRON. 2SG.  dog + SG.  kill + what (QU.)

       *morphemic:*  n         vaɣa      kʊ   ase
                    PRON. 2SG.  dog + SG.  kill  what (QU.)

       'What did your dog kill?'

Crucially, this process is triggered by lexical vowels only; the 'epen-thetic' pre-pausal final vowels of UNMARKED and DURATIVE verb forms, which are never realized in medial positions, do not trigger: therefore in sentences like (890) we have [dɪr a] and never anything like [dɪr ɛ], even though this verb form is realized as [dɪrɪ] pre-pausally. This even affects the vowel of the 1SG. pronoun, which is also an empty nucleus, as shown in (891), where it is an indirect object in post-verbal position.

(890)  ase        ni                də              dɪr        a      mũĩ
       what (QU.)  for (POSTPOS.)  PRON. 3SG. HUM  eat + DUR.  ART.   rice

       'Why is he eating rice?'

(891)  də                  pa    m              a      sanam       subre
       PRON. 3SG. HUM       give  PRON. 1SG.     ART.   gold (SG.)  pot + SG.

       'He gave me a pot (full) of gold.'

### 3.4.4.1 Deletion processes

It is important, when considering deletion, to consider the status of the so-called 'epenthetic' vowels, both in medial and in phrase-final positions. My own phonological analysis is that these vowels are 'inserted' (i.e. in fact always present as empty nuclei, but phonetically filled). They are therefore dealt with in the context of vowel harmony in §3.2.6.4.2 above, and in greater detail in Rennison (1993).

However, there does exist a proper deletion process, which erases[112] a lexically present vowel under certain circumstances. One such process deletes noun class suffix-final vowels in medial positions in faster or more casual speech, as in [a pɛrəɣə sam] 'a washed shirt' from the words which alone are [pɛrɣʊ] 'shirt' and [sam] 'wash(ed)' (UNM.). The precise circum-stances under which this process occurs are not clear to me, but it is cer-tainly fairly rare. Also, there exists a general process of this kind in Mòoré, which deletes all class-suffix-final vowels in medial positions (e.g., without tones,[113] [mooɣ naaba] 'big chief' from [mooɣo] 'Mossi country' and [naaba] 'chief') and I suspect that the individual occurrences

of this process in Koromfe are a case of 'loaned phonology'. Recall again that this has nothing to do with the phonetically predictable phrase-final vowels of Koromfe; here we are concerned with lexical vowels whose quality cannot be reconstructed.[114] I will therefore say no more about this deletion process.

The final expected /l/ of verbs with the -*Vl* suffixoid is deleted, as described in §3.4.1.1.2.2 above (with examples in (867) and (868)). This deletion occurs irrespective of whether phonetic [l], [n] (by nasalization) or [d] (by dissimilation) is expected, resulting for example in [daɣa] 'wait' (UNM.) for expected *[daɣal] or *[daɣalɪ].[115] This correlates with the general distribution of [l] in Koromfe, which never occurs word-finally after the nucleus of the second phonetic syllable in native vocabulary (and only once in a loan, namely [sɛkɛl] 'block' (e.g. of salt). This single final /l/ cannot be 'saved' by phrase-final filling; an expected geminate phonetic [ll] (for /l+d/ in the DURATIVE of these verbs) is simplified to a single [l], and phrase-final filling occurs (hence [daɣalɪ] 'wait' (DUR.)). See Rennison (1993) for a detailed analysis.

Another deletion-like phenomenon in Koromfe is largely lexical in nature, and concerns the missing final consonants in the UNMARKED form of a handful of very common verbs. These verbs are listed in (892). For some of them my informants offered more regular formations (given second in the UNM. column), but these never seem to occur in spontaneous speech and may therefore be spurious. One effect of this shortening of UNMARKED forms is that the word is often phonetically one syllable shorter. The motivation for (or source of) this shortening may therefore be in the imperative use of the UNMARKED form.

(892)   *Verbs with an irregularly short UNMARKED form not resulting from any regular phonological process. (All the words in my corpus.)*

| lex. stem | gerund | unm. | past | prog. | gloss |
|---|---|---|---|---|---|
| /bɛn/~/bɛl/ | bɛnam | bɛ | bɛnɛ | bɛllaa | 'come' |
| /bol/ | bolʌm | bo | bole | bollʌʌ | 'say' |
| /jag/ | jaɣam | ja / jaʊ | jaɣɛ / jɛɣɛ | jakaa | 'go'[116] |
| /jel/ | jelʌm | je | jele | jellʌʌ | 'see' |
| /pan/ | panam | pa | panɛ | pandaa | 'give' |
| /soŋg/ | soŋgʌm | soŋ | soŋge | soŋgrʌʌ | 'receive' |
| /ted/ | teram | tɛ / jɛɣɛ | tɛrɛ | tɛtaa | 'arrive' |

| lex. stem | gerund | unm. | past | prog. | gloss |
|-----------|--------|------|------|-------|-------|
| /tɪg/ | tɪɣam | tɪ / tɪɣɪ | tɪɣɛ | tɪkaa | 'put' |
| /zãŋg/ | zãŋgam | zãŋ | zãŋgɛ | zãŋgraa | 'take' |

### 3.4.4.2 Insertion processes

The vowels which are coloured by the processes of 'colour harmony' and 'phrase-final filling' (both described in §3.2.6.4.2 above) could, in certain cases and in certain phonological theories which I do not espouse, be regarded as the result of an insertion process. This analysis would be open only for words where the nucleus which is harmonized in certain structural positions just happens not to be realized with (optional) schwa when it is licensed (e.g. it is located between two voiceless consonants). However, I do not think that this analysis is correct, or that vowels are ever (structurally) inserted in Koromfe: all they ever do is sometimes to receive colour. This gives the appearance of vowel insertion, especially at the end of phonological phrases, where something has to happen to prevent a consonant other than [m,n,ŋ,l] from being final.

### 3.4.5 Reduplication

The process of reduplication in Koromfe involves repetition of the whole word in an identical phonetic form (with one exception: [lɛɛlɛ] 'only' for reduplicated [lɛ] 'thus, only', with an unexpected long first vowel). This may be a case of the lengthening described in §2.1.4.5.1 above which expresses the notion of 'large measure'.

Examples of reduplicated words were given in §2.2.3.3 (for adjectives) and §2.2.4.4 (for adverbs).

### 3.4.6 Other processes

### 3.4.6.1 'Spontaneous' nasalization of the consonants of some suffixes

While the post-vocalic consonant nasalization processes described in §3.4.1.1.2.1 above are effective for the noun class suffixes without exception (e.g. [dãŋ] 'house' from /dã+gʊ/), we saw in §3.4.1.1.2.2 that some nouns (e.g. [jãndɛ] 'millet', from /jãn+dɛ/) resist onset-to-onset nasalization of the class-suffix initial consonant, even though all suffix-initial stops in verbal inflection nasalize.

There also exist noun class suffixes which defy nasalization in a different way: they have a nasal(ized) initial consonant even though there is no lexical nasal segment in the word which could trigger a nasalization process. Some examples from the diminutive *ga/nɩ* class are given in (893).

(893)  *Nouns in the* ɡa/ɩ *'diminutive' noun class with the nasalized suffix variant [ŋa] and with no nasal source segment*

| sing. | pl. | gloss |
|---|---|---|
| bikeŋʌ | bikeni | 'girl' |
| fɪllaŋa | fɪllanɛ | 'Ful (person)' |
| fillǝŋʌ | fillǝni | 'kind of forked stick' |
| jileŋʌ | jileni | 'frog' |
| kifeŋʌ | kifeni | 'small calabash' |
| mɔsǝŋa | mɔsǝnɛ | 'Mossi (person)'[117] |

I am not happy with my previous, very early analysis (Rennison, 1985) of these consonants as the result of a 'spontaneous' nasalization process occurring in intervocalic positions; several of the words concerned have no intervening full (lexical or harmonized) vowel between the last consonant of the stem and the suffix (e.g. [fillǝŋʌ] 'kind of forked stick').

The only speculative source of this type of nasalization that I can think of is that the nasal consonants occur where the language once had a low tone (if, as many Government Phonologists currently think, nasality and low tone are the same phonological element, and if Koromfe ever had tones). Unfortunately it is impossible for me to ascertain which Gur languages are genetically close enough to Koromfe to allow reconstruction of the 'lost' tones. This speculation therefore remains nothing more than a possible project for the famous 'future research'.

## 3.5 Morphophonology (suprasegmental)

Stress is not affected by morphological processes and compounding, and Koromfe has no tones. There are no changes in the segmental pattern due to the intonation pattern, with the exception of the lengthened yes-no question particle described in §1.1.1.2.1.1 above. Therefore the rest of §3.5 of the questionnaire is inapplicable.

# Notes to Chapter 3

1   The total absence of phonetic front rounded vowels contrasts with Mòoré, where they exist in words like *peoosgo* 'sheep', whose first vowel is realized in faster / more casual speech as a long front rounded [ø] or [ʏ] (depending on analysis — cf. Rennison, 1987c; 1992 on arguments for the analysis of the 'tense mid' vowels of Mòoré as lax high vowels).

2   The 'phoneme' /r/ exists only in loan words, and only in word-initial position, as in *ragjo:* 'radio'. Otherwise phonetic [r] is a variant of /d/ and therefore not an independent 'phoneme'. If it were a native Koromfe word, 'radio' would have to be something like *\*dagjo* or *\*lagjo*, neither of which exist. Note that the non-native status of the word 'radio' is also apparent in its non-ATR-harmonic vowels.

3   The inventory of fricatives is not very large, which may be one reason why there is no tendency towards even phonetic affricates.

4   The four forms given here are the only cases of intervocalic [p] in my corpus.

5   All the words in my corpus with medial [p] seem to be either compounds or loans; the word 'flag' (from French) is one of the few which do not seem to have a morpheme boundary before the [p].

6   The qualification 'potential' is necessary here because /p/ never occurs in such phonological environments. However, it is quite clear on both phonological and morphological grounds that none of these devoiced realizations of /b/ could be analysed as being a realization of /p/.

7   There exist only a handful of words where there is no phonological alternation to support the analysis of such a [d] as underlying /l/, e.g. [werede] 'poverty'; however, even in these words the dissimilation environment is always present. Also, a single word of unknown origin (though very Mòoré-like), [gedʌu] 'kind of hairstyle' (PL.) has an intervocalic phonetic [d]; this same word in the singular, [gedre] is the only exception to the fusion of /d+d/ to [t].

8   Contrary to my usual practice, the 'intervocalic' column of (804) also contains words with a morpheme boundary before the /f/; arguably all words with intervocalic /f/ have or once had a preceding morpheme boundary before the /f/.

9   Geminate consonants, namely [mm], [nn], [ll] and voiceless (fortis) stops resulting from the fusion of two voiced (lenis) stops (possibly with concomitant assimilation of the place of articulation), occur only immediately following the first stem nucleus of a word. In later positions in the word, expected geminates are simplified. Cf. §3.2.2.1.3 on syllable structure.

10   Among the many vowels which never follow an initial /m/ are all the oral back vowels, with the exception of this one loan word *mɔtɔka*.

11   The 4 forms given here are the only ones in my corpus which have no morpheme boundary between the two /m/'s. Many more forms exist based on DURATIVE forms of verbs like *samm(ɔ)* from *sam-* 'wash', e.g. *sammɔba* 'people who wash'. In all such words there is a morpheme boundary between the two /m/'s.

12   As with the geminate /m/'s, the 4 forms given here are the only ones in my corpus that have no obvious morpheme boundary between the two /n/'s. Here, too, many more forms exist: many are based on DURATIVE forms of verbs like *fɔnn(ɔ)* 'be

461

afraid'; others are singular nouns of the *dɛ/a* class like [kunne] 'village' from /kun+dɛ/. In all such words there is a morpheme boundary between the two /n/'s.

13 There exists a single word with a final [l] following a nucleus later than the first of the word stem, namely [sɛkɛl] 'block' (e.g. of salt), which is identical in Mòoré. The question word [ikɔl] 'how much?' has a prefix *i-* like the numerals, and so it is no exception to the 'first stem syllable' generalization.

14 This environment excludes the occurrence of word-final [d]. Only a single word in my corpus, *lada*, PL. *ladafi* 'duck' has a medial [d] in a different position which might nevertheless originate in a dissimilated /l/. This word must be a loan, though not from Mòoré, where a [d] in this context is also impossible.

15 The nasal consonant can itself be (lexically) nasal, or it can result from nasalization by a nasal (first) stem vowel. Also, note that despite the total phonological regularity of these forms, they are quite few in number.

16 A palatal nasal stop also occurs (optionally) when the 2nd person singular proclitic pronoun *N* precedes an oral glide [j], e.g. *n jɪbrɛ* 'your eye' comes out normally as [ɲjɪbrɛ], but also optionally as [ɲɲɪbrɛ].

17 The unequal length of the columns in this and the following tables results from the fact that not all vowels occur following each initial glide.

18 The word [hʌwei], PL. [hʌweimʌ] 'paternal aunt', which is a kinship term no longer actively used by my informants. The (rest of the) phonological shape of this word is also quite unusual for Koromfe kinship terms.

19 This is not quite true insofar as other (full) vowels such as the [ʊ] of the proclitic pronoun [gʊ] and some suffix vowels tend to reduce to a more centralized (i.e. schwa-like) articulation in fast speech.

20 In addition to the phonemically nasal vowels, there is a slight nasalization of the (phonemically) oral vowels both before and after nasal consonants. There are also phonological nasalization processes described in §3.4.1.1.1.1 below.

21 The long vowels of Koromfe are no more frequent than the diphthongs, and many of them are restricted to loans (especially from Mòoré, where vowel length contrasts abound phonetically, although they are not lexically contrastive). My impression is that they are in fact, like the diphthongs, sequences of independent nuclei with (accidentally) identical vowels. This impression is supported two facts: 1) apart from the accidental gap ([õõ]) the number of long vowels is the same as that of short vowels, and 2) there are no long diphthongs (even though these abound in Mòoré). In Government Phonology, these are NON sequences with an empty intervening onset.

22 The vowel [õõ] is an accidental gap in the system.

23 There are no words with [ʌʌ] as their first stem nucleus in my corpus; but as the final vowel of PROGRESSIVE verb forms, the nucleus [ʌʌ] abounds.

24 There are no words with [ē] as their first stem nucleus in my corpus; this word is clearly a Mòoré loan.

25 There are no words with [ɛ̃] as their first stem nucleus in my corpus, but many words like [tufəhɛ̃] with the lowered tense variant of the instrument suffix *-hī*.

26 There are no words with [õ] as their first stem nucleus in my corpus. On the other hand, durative verb forms like [doɣomõ] with this vowel in final position abound.

27 There are no words with [õõ] in my corpus.

28 This word is a Mòoré loan; [õõ] does not occur in native Koromfe vocabulary.

29 Clearly, it is not always possible to tell whether what looks like an unanalysable morphemic chunk really is one; and if it is (synchronically), whether it was one in the near past. The data given here are what appear to be the clear cases.

30 The 'morphs' given here are not what I assume to be the lexical form of each morpheme; only the position of the morpheme boundaries are relevant to the description of the diphthongs. The morpheme boundaries shown here are 'maximal', i.e. at every position where such a boundary might possibly be considered to exist.

31 Since there exist no apparent cognates of this word, its morphological analysis remains uncertain, though clearly the word must be complex if it is so long.

32 The word [wolle], PL. [wala] may combine the essence of both of these types of phonetic variant; the [o] of the singular could be derived from /ʌ/ by both routes, although in both cases the word is still irregular.

33 The term 'syllabic' for consonants, although widely used, is something of a misnomer, since the consonants involved are not always the whole syllable, but only its nucleus. Therefore 'nuclear' consonants would be a better name. Having said that, it turns out that all the nuclear consonants of Koromfe are indeed whole syllables; they have no (other) onset consonant or rimal consonant.

34 I am well aware that [w̃] and [j̃] are equivalent to the vowels [õ] and [ĩ] respectively, but prefer this more complex transcription to preserve the parallel with the other syllabic nasals.

35 Unfortunately there exist no morphemes with the phonetic shape [nə] or [ŋə] which could also be contrasted here.

36 Perhaps 'phrase-final' is a slightly misleading term, since any Koromfe word can have its phrase-final realization in the middle of a sentence if it is followed by a pause (e.g. in hesitations). The 'phrase' need not consist of more than one word; all Koromfe word lists have the phrase-final realization of the word-final segments.

37 Clearly, the nasal variants [w̃] and [j̃] of /w/ and /j/ respectively do not occur word-finally because there is never a following word-initial nasal vowel that could nasalize them.

38 Here I ignore one non-native-looking adverb [faahan] 'up to now' and the conjunction and non-specific relative *kɔ̃N* — neither of which occur phrase-finally.

39 Since the syllabic vs. non-syllabic realizations of the 'syllabic nasals' are completely automatic, the syllabicity of phrase-initial nasals is not marked in the transcriptions in the rest of this grammar.

40 Since these consonant sequences are based only on the derived words contained in my database, it is more than likely that a considerably larger number of sequences actually occur.

41 The pseudo-underlying forms given here do not take syllable structure into account, and are given only for expository purposes.

42 Schwa is included here for completeness' sake, even though it is not a full vowel. The word-initial sequence [mə] occurs only as a realization of the 1st person singular personal pronoun.

43 A single case of the word-initial sequence [nʊ] exists with unlowered [ʊ], namely [nʊŋgʊ], PL. [nʊmɪ] 'millstone'; but in the related verb [nɔ̃mam] 'pound' the expected post-nasal lowering and nasalization processes have taken place. Cf. also §3.4.1.1.1.1 on this word and these processes.

[44] The term ATR (advanced tongue root) has become the standard term for harmony of what used to be called tense vs. lax vowels. The terms ATR/non-ATR and tense/lax are used interchangeably in this monograph.

[45] Recall that the vowel /ʌ/ has an allophone [o]; both [ʌ] and [o] are tense.

[46] This assumption is based on the observation that the transmission of the property ATR to a vowel is additive, just like the addition of (high) frontness or (high) backness in colour harmony or of nasality in nasalization processes. A structuralist or underspecificational analysis, on the other hand, would probably assume that the vowels of the derivational and inflectional suffixes are unspecified for ATR and receive a plus or minus specification from the word stem. The point is not relevant to the description presented here, but it should be noted that the 'underlying' or lexical forms of all ATR-alternating suffixes are presented in this monograph in their non-ATR (lax) variant.

[47] Nasality is not transmitted by the process of colour harmony itself, and no other nasalization process would nasalize the vowels in the forms such as [dɔ̃nɔtrʊ] described here. However, harmonized vowels can be nasalized if the phonological environment for the nasalization processes are met (see §3.4.1.1.1.1).

[48] The spirit of the stipulation that this vowel 'must be high' holds true, but after nasal consonants the vowel can be nasalized and lowered to mid, as described later in this section.

[49] I am not certain where this A element or 'non-high' specification comes from, but suspect that it may be due to a universal tendency for 'unspecified' **full** vowels to be [a] (in contrast with unspecified weak vowels, which tend to be schwa).

[50] Of course, nothing in phonology really comes from nowhere; this I element must be something like 'the least costly filling' for a nucleus. In Mòoré, where the same process of phrase-final filling (at least of UNMARKED verb forms) exists as in Koromfe, but without colour harmony, the phrase-final 'epenthetic' vowel is always [i] or [ɪ] (the last erroneously transcribed in the standard orthography of Mòoré as ⟨e⟩ — cf. Rennison, 1987c; 1992).

[51] For GP theorists: the -ɛ suffix consists of a melody without structure which inserts itself into the final empty nucleus of the word stem — this is why CV stems like /dɪ/ 'eat' have an UNMARKED form [dɪ] and past form [dɛ] with a short vowel. In words like /zu/ 'enter' the UNMARKED form is [zu] and past form [zo], where the supernumerary and incompatibly I element of the PAST SUFFIX -ɛ is not realized.

[52] The licensing of word-internal empty nuclei in Koromfe is either by the FEN parameter, which permits morpheme-final (but not phrase-final) empty nuclei or by proper licensing (cf. e.g. Kaye 1990).

[53] There exists one puzzling verb which might contract this generalization, namely [zɪɣamsʊ] (UNM.), DUR. [zɪɣamsrʊ] 'make dirty'. The related noun [zɪɣam] 'dirt' (SG.) is also phonologically strange. I suspect that the vowel which I hear as [a] is in fact the realization of schwa in the context 'between [ɣ] and [m]'. In any case, this is the only putative exception to colour harmony that I know of.

[54] There exist many definitions or characterizations of 'phonological phrase'. For our present purposes, the phonological phrase is simply a stretch of speech between two pauses or pause-like intonations. Usually a phonological phrase ends simultaneously with the sentence, though not always (especially in sequences of short juxtaposed clauses); some sentences contain more than one phonological phrase.

464

55    The evidence of word lists is therefore only of limited use, since it is impossible to tell whether a final vowel which complies to the restrictions of colour harmony is lexically present or absent. Thus, for example, the final vowel of [bʊkʊ] 'shoulder' is in fact the vowel of the noun class suffix -*gʊ*, and is lexical, while that of [hʊkʊ] 'throw!' is epenthetic. The lexical vowel of [bʊkʊ] 'shoulder' can **optionally** drop in medial positions; the vowel of [hʊkʊ] 'throw!' obligatorily **never** occurs in phrase-medial positions.

56    In GP nothing needs to be inserted, because an empty nucleus is already present at the end of every consonant-final word. (Koromfe has only a single position in the rime, i.e. the non-branching nucleus.) This final empty nucleus (FEN) is parametrically licensed morpheme-finally (and therefore also word-finally), but not phrase-finally except after the onset consonants [m,n,ŋ,l]. Why should this be so? The general preference of languages for open syllables is overridden in Koromfe (and, incidentally, also Mòoré) by the licensing of phrase-medial final consonants. This in turn increases robustness by signalling to the hearer that the phonological phrase is not finished and therefore parsing must continue.

57    Whether the properties of frontness and backness are transmitted directly from $V_1$ to $V_3$ or indirectly via $V_2$ can not be decided on the basis of any empirical data that I know of.

58    A handful of realizations of the tense variant of the postposition *nɛ* sound like [ne] in my recordings; but the overwhelming majority are [ni]. This always contrasts with the lax **mid** vowel (i.e. the form [nɛ]) but never with a lax high vowel (i.e. a form *[nɪ]).

59    The durative suffix in the words given here is nasalized after a preceding nasal consonant or vowel. In [doyomõ] 'cut' the expected geminate [mm] resulting from the assimilation of /m+d/ is simplified to a single [m] in this position (i.e. after the 2nd vowel of the word); after the 1st vowel of the word, a geminate surfaces as in [dɔmmɔ̃] 'bite'.

60    Due to this phonological process, all DURATIVE verb forms that take the suffix -*f* automatically have the phrase-final vowel [ʊ] or [u]. This might tempt us to consider the shape of the suffix itself to be -*fʊ*. However, the ease with which thus [ʊ] or [u] vowel is lost in medial positions shows that it cannot be lexically present, despite the fact that (phrase-finally) the shape of the suffix is phonetically invariant.

61    The apparent crossing of association lines in (853) is an artefact of the two-dimensional graphical representation here. Colour harmony emanating from vowels 'takes place' on the nucleus projection, where consonants are 'invisible'. Nevertheless the question arises why the association to U in [weremõ] is stronger than the (potential) association to I.

62    Since Koromfe has no branching syllable constituents, this is hardly surprising; a long glide would have to straddle an empty nucleus without filling it.

63    By adverb-verb group I mean the finite verb of a sentence, plus the small adverbs or particles which can precede the verb (in a position between the subject NP and the verb). Such adverbs/particles include in particular both types of negative marker, i.e. the disjunctive negative particle [ba] and the series of negative personal pronouns with a final long [aː]. I use the word 'group' rather than 'phrase' to avoid

confusion with verb-phrases proper, which are much larger than this 'adverb-verb group'.

[64] There is a pause of about 1 second at the clause boundary, i.e. between [ni] and [də].

[65] There exist two versions of this sentence in my texts. This one is the first, and has a weak 2sg. pronoun before [bo]; the second has a strong pronoun [ŋkɔ], and therefore a rise in pitch on the syllable [kɔ].

[66] In particular, silent empty nuclei which are never realized as optional schwa are ignored for the purpose of this classification of phonological processes.

[67] Strictly speaking, any vowel following another vowel in Koromfe has an intervening empty nucleus; however, since a) our present purposes are purely descriptive and b) a long-distance process of nasalization also exists, we will gloss over this point.

[68] The lax variant [h̃ɛ̃] of the -*hĩ* plural suffix of the deverbal instrument nouns undergoes lowering in the lax form, but not nasalization, since a) it is lexically nasal and b) there is no local source for nasalization. The tense version of the same suffix, [h̃ĩ], on the other hand, does not undergo either process.

The -*ɪ* suffix of the *gʊ/ɪ* noun class is lowered to [ɛ] after a nasal consonant, but not nasalized; after a nasal vowel it undergoes both processes, producing phonetic [ɛ̃].

[69] In my corpus there are a handful of realizations of the tense variant of the postposition *nɛ* which sound like [ne]. However, the overwhelming majority of cases have [ni]. Similarly for the plural deverbal instrument noun suffix *hĩ*: a few [h̃ɛ̃] realizations occur, but the normal realization is [h̃ĩ].

[70] It is extremely difficult to assess the degree of nasality of the vowel [ɛ] after nasal consonants, since the 'oral' version of this and all other vowels is slightly nasal in a nasal environment. I therefore cannot exclude the possibility that the vowel /ɛ/ does indeed nasalize here. However, the nasal [ɛ̃] which follows a nasal vowel, as in [tɔ̃ɛ̃] 'bees; honey' sounds much more nasal, as do the long final [ɛ̃ɛ̃]'s mentioned later in this section.

[71] The only word with such a shape, the plural of [jirṽĩitu], PL. [jirṽĩnu] 'coal, charcoal' has such an unusual and unique phonetic shape that it must be a loan (probably from Mòoré).

[72] No -*ɔ* class suffix occurs on a vowel-final word stem; recall that the deverbal agent nouns are formed from the DURATIVE stem of the verb, which has a consonantal suffix — either -*d* or -*f*.

[73] This word also has variants with a non-lowered final vowel: [w̃ɛ̃ĩ] and (less frequent) [w̃ãĩ]. However, their existence shows that the lexical vowel here must be high and not mid.

[74] This word and a few others (including words in the -*gʊ/ɪ* class) have an irregular alternation of a stem-final velar nasal [ŋ] in the singular with a labial nasal [m] in the plural. Apart from PAST verb forms, the word-final sequences [ŋe]/[ŋɛ] and [ɲi]/[ɲɪ] are completely missing from the language; I therefore assume that the lexical shape of these words has a velar nasal, and that the labial is derived. However, there are too few words to warrant calling this stem alternation an active process of the language. Other words of this type are given in the following table. The word [w̃ãnãŋ] also has an alternative plural [w̃ãnĩã].

| noun (SG.) | noun (PL.) | gloss | noun (SG.) | noun (PL.) | gloss |
|---|---|---|---|---|---|
| bɔɲfɛ | bɔmɛ | 'stake' | pɔŋgʊ | pɔmɛ | 'mat' |
| fɛləŋa | fɛləmɛ | 'narrow' | saɲfɛ | same | 'rib' |
| nʊŋgʊ | nʊmɪ | 'millstone' | w̃ãnãŋ | w̃ãnəmɛ | 'spotted' |

75    There is, however, a regularity in the words with the [ŋ] singular variant of the -gʊ suffix: those which keep their harmonic second vowel in the plural have unlowered [ɪ]/[i] (as [tɔnɔ̃ĩ]), but those which lose it have lowered [ɛ] (as [w̃ɔ̃nɛ]). There are no words of the second type with tense [e] in my corpus.

76    Some of the words given here have singulars with class suffixes other than regular -ga. However, this is irrelevant for this phonological process affecting the plural.

77    The failure of nasalization in [nʊŋgʊ] 'millstone' may be due to the existence of the word [nɔ̃məŋa], PL. [nɔ̃mənɛ] 'scorpion'. The Koromba are linguistically re-spectful towards dangerous animals like snakes and prefer to use secret names rather than to name them directly.

78    The nasalization of the /d/ to [n] in [w̃ɔ̃nɔ̃ŋ] 'chicken' is obligatory (though it could be analysed as an underlying /n/; the /g/ of the -gʊ suffix is not obligatorily nasal-ized, though this usually happens in simplex words of this noun class.

79    This blow by blow account should not be taken to mean that I consider such deri-vations to be a part of phonology; their use here is purely expository.

80    The fact that the sequence [ŋʊ]/[ŋu] (or any derivative thereof, such as [ŋɔ̃]/[ŋõ]) is illicit is an observation only; I do not know why it should be so, although it seems a near-universal that [ŋ] is phonotactically the most restricted nasal consonant.

81    There is too little clear evidence from other consonants to say whether, say [s] or [t] also prevent nasalization of the voiced (lenis) stops in this context. There exists only one word stem, that of [sɛ̃btam] 'split', which has the phonetic sequence [Ṽbt], and none with [Ṽmt] so by the narrow margin of one word /b/ does not na-salize after nasal vowels before [t]. However, there exist no words with [b] but a few such as [h̃ɛ̃msam] with [m] after a nasal vowel before [s]. Unfortunately there are no alternations that would allow us to conclude whether these [m]'s were or were not originally [b]'s that were nasalized.

82    Since Koromfe has no branching syllable-structure constituents, all phonetic se-quences of 'consonant + consonant' in fact have an intervening (empty) nucleus. We will ignore this discrepancy here, since there also exists a process of long-distance nasalization; however, the schwas which optionally appear in some of the licensed empty nuclei are included here as a reminder that the consonants are not 'really' (i.e. phonologically) neighbours.

83    The phonetic [nd] in PROGRESSIVE forms such as [hamandaa] in (850) is thus the reflex of /l+d/ (i.e. the final /l/ of the suffixoid -Vl plus the initial /d/ of the PROGRESSIVE suffix -daa). In the equivalent non-nasalized words, such as [vabalaa] in (868), on the other hand, only a single [l] is left from this /l+d/ sequence. In this position (after the second phonetically realized nucleus of the word) geminates do not occur, and so *[vaballaa] (parallel to [gallaa] 'have plenty' (PROG.), which has one syllable less) would be impossible. These cases are discussed in detail below.

84    There are some velar and arguably also labial suffix-initial consonants which have nasal variants (e.g. [ŋa] from -ga, [ŋ] from -gʊ, and possible some [ma]'s from -ba). However, such nasalized non-alveolar variants of suffix-initial consonants

also occur without a nasal segment in the noun stem (e.g. [pɪlaŋ] 'moon', [bikeŋʌ] 'girl'). This process is therefore dealt with in §3.4.6.1 below, even though words like [w̃ɔ̃nɔ̃ŋ] 'chicken' from /wɔ̃d+gʊ/ or /wɔ̃n+gʊ/ look like cases of nasal assimilation of the final phonetic consonant.

85 The 'homorganic nasal + voiced stop' configuration, like the 'geminate' configuration, involves the sandwiching of an empty nucleus between two homorganic lenis onsets, the first of which is nasal. This results in the final [ndaa] PROGRESSIVE variants (and corresponding DURATIVE forms) from lexical /l+daa/.

86 The 'mute' vowels are, in Government Phonology, licensed empty nuclei (which need not be phonetically filled). In Koromfe, such a licensed empty nucleus is optionally filled with a schwa. This is the only context in which phonetic schwa occurs; an unlicensed empty nucleus must be phonetically filled with a full vowel. Cf. §3.2.5.

87 The relative scarcity of the word types given in (850) does not reflect the generality of this process; rather, this is the one word type which displays **both** types of phonetic output (syllable-final vs. syllable-initial nasalized consonant). In the UNMARKED forms in (850) show the deletion of /l/ when unlicensable (cf. Rennison, 1993).

88 The lexical stems given in this and all other examples do not contain information on syllable structure. Since Koromfe has only non-branching syllable constituents, it is always possible to reconstruct the syllable structure from the segmental forms given here.

89 The PAST form [bunne] is the only word in the language with /n/ as the 2nd-syllable onset of a stem with the -$Vl$ suffixoid. As predicted by Government Phonology, the $O_2NO_3$ with an empty N and identical $O_2$ and $O_3$ fuse phonetically to a geminate; a phonetic schwa can **never** intervene between the two [n]'s.

90 Nasalization fails in words like /gɔndVl/ because the consonant sequence /nØd/, where Ø is an empty nucleus, forms a geminate-like homorganic 'nasal plus voiced stop' sequence which cannot itself be fully nasalized (i.e. in its final position) and therefore cannot transmit nasalization further to the right.

91 Recall that some other words such as *boŋ* 'love' (UNM.) lose the /d/ of the DURATIVE and PROGRESSIVE forms completely, probably because geminate velar nasals are illicit. Thus the PROGRESSIVE form of this word is [boŋʌʌ] and not *[boŋŋʌʌ] or *[boŋənʌʌ].

92 Interestingly, none of the non-nasalizing words have a geminate stem-final nasal consonant.

93 The assimilation of /l+d/ in Mòoré verbs produces phonetic [nd] where native Koromfe verbs have [ll]. In a few loaned verbs, given below, Koromfe has the Mòoré pattern, i.e. phonetic single [l] in the UNMARKED and PAST forms but [nd] in the DURATIVE and PROGRESSIVE.

| UNM. | PAST | PROG. | *gloss* |
|------|------|-------|---------|
| geli | gele | gendʌʌ | 'calculate' |
| jaalɪ | jaalɛ | jaandaa | 'unhappy' |
| wuulu | wuule | wuundʌʌ | 'howl' |

94    It is impossible to say whether (even historically) the /d/ is first totally assimilated to the stem-final /ŋ/ and then lost, or whether such /d/'s are lost 'before assimilation'. Suffix-initial /d/ is never lost in the nouns.

95    Judging by its length this word must be a compound; but the first part does not exist elsewhere in the language.

96    The lack of exceptions to the process of gemination can only be maintained if one assumes (as I do) that some verb stems have two alternative lexical shapes, with final /d/ and /n/ respectively.

97    There do exist two simplex nouns with the phonetic sequence in question, namely [kãtɛ], PL. [kãra] 'forest' and [pãtɛ], PL. [pãnɛ] 'toad'. Both singular forms sound rather strange, and the plural form [pãnɛ] is irregular, indicating that these may be loans.

98    The fusion of /bb/ to [p] seems to exist unequivocally only in the word [sɔbɔ], PL. [sɔpa] 'hunter' because both stem-final /b/'s and /b/-initial suffixes which attach to bare stems are rare. On the other hand, there are no counterexamples to this fusion process. Compare also the noun [zakʊ], PL. [zapa] in (879).

99    Of course, it is usually impossible to tell whether the voiceless stops or [ll] and [nn] geminates in these words originate in voiced stops or not.

100    The verb [w̃ɛnnraa] is the only one with this medial sequence of consonants.

101    There also exist two puzzling diminutive forms with phonetic [k] instead of expected [ɣ] after a stem-final voiced stop [b]. I do not know what motivates this realization, but give the forms here for completeness' sake, along with the non-diminutive nouns from which they are derived:

| DIMIN. | SG. | PL. | *gloss* |
|---|---|---|---|
| nɛbka | nɛbrɛ | nɛba | 'pea' |
| ɠabka | ɠabrɛ | ɠaba | 'knife' |

102    The evidence for this stem is indirect, but fairly obvious to speakers: related words are the noun [gɛbrɛ], PL. [gɛbɪa] '(different) kind of millet flour' (with the obvious stem /gɛb/ and class suffixes -*dɛ* and -*ɪa*) and the regular verb [gɛbam] 'pound', with the stem /gɛb/.

103    The evidence for this stem is more tenuous. My analysis assumes that the class suffixes are SG. -*gʊ* and PL. -*ba*, i.e. involving a class crossover between the non-human class *gʊ/ɪ* and the human class *ɔ/ba*. In view of the semantics of this word, such a crossover is not unthinkable. If this analysis is correct, then this is a second word alongside [sɔbɔ], PL. [sɔpa] 'hunter' with coalescence of /b+b/ to [p]. There is also a related word /zabrɛɪ/ which seems to contain an initial element /zab/, and whose second element [rɛɪ] may be related to the abstract noun deriving suffix /lɛɪ/.

104    The distinctive shape of these words and their semantic similarity in denoting long, thin objects can hardly be a coincidence; this may be the remains of a separate noun class. Although morphologically these words follow the pattern of other singulative/collective pairs like SINGULAT. [jɛ̃nəfɛ], COLL. [jɛ̃nɛ] 'fish', there is nothing obviously 'collective' about stakes or snakes (though perhaps about ribs).

105    Since *firede* and *werede* are the only words of this type in my corpus and have no plural, their analysis is uncertain. However, their phonetic intervocalic [d] must, I think, come from a lexical /l/, even if there are no alternations with phonetic [l].

106 This means that, conversely, there are no GERUND forms with the suffix *-am* that have a long high vowel.

107 In extremely careful speech my informants 'reversed' this coalescence for me, giving for example [fuʌm] for normal [foom]. However, such realizations never occur in any of my recorded texts or spontaneous speech of my informants. I therefore conclude that they are an artefact of my investigation and do not exist at all in normal speech. The same probably applies to the glided versions of the diphthongs.

108 Not all logically possible combinations of lexical vowels actually occur in CV verb stems (e.g. /Co+am/ → [Coom] and some nasal vowels), but this is probably accidental, and I expect that some of the expected forms may turn up on further investigation of the language. However, the lack of nasal high vowels may be systematic, since nasal vowels generally have a tendency to lower to mid (cf. §3.4.1.1.1.1 on that process).

109 The diphthong variants of the PAST forms occur only in very careful speech and are extremely short, apart from [jɛɛ] and [j̃ɛ̃ɛ̃]. The extremely careful forms [jɛjɛ] and [j̃ɛ̃j̃ɛ̃] were probably only given for the sake of the investigator, and do not occur in natural speech.

110 Here, vowel-final means that the last vowel of the word must be lexically present in whatever morpheme happens to be at the end of that word. In other words, the lexical vowel of a suffix is just as good as the lexical vowel of a bare word stem.

111 Since this word is ATR-disharmonic, its initial *a* is probably in fact the article *a*.

112 Deletion cannot, of course, get rid of the nucleus position within syllable structure which was occupied by the vowel: and so, by the general process mentioned in §3.2.5, the deletion site is optionally realized as phonetic schwa, as in the example [pɛrəɣə sam] given here.

113 The tonology of Mòoré compound nouns is highly complex and variations in the tone marks on these words would only be confusing. The phonetic transcription used here is the standard system set down by Nikiema (1980b); phonologically, the vowels transcribed here as [o] are lax [ʊ]'s (cf. Rennison, 1987c).

114 For Koromfe this is true; for Mòoré the processes of U-umlaut and A-umlaut (which have no equivalent in Koromfe) ensure that the quality of the lost vowels can be reconstructed from the first stem vowel by 'spreading' their quality to the left. For details, see Rennison (1987c).

115 The star of [daɣalɪ] refers to its impossibility as an UNMARKED form of this verb; this phonetic form is the realization of its DURATIVE.

116 In contrast with the other alternative forms given here, UNMARKED [ja] and [jaʊ] are equally common. Moreover, in stories they can often be found together, always in the order [jaʊ]-[ja], in a sequence of short pronoun-verb clauses like *də jaʊ də ja* 'He went.' or 'He left.'

117 Strictly speaking, the stem of the word [mɔsəŋa] does contain a possible source of nasality in its first consonant; however, this would be the only word with onset-to-onset nasalization which skipped an unnasalizable onset.

# 4 Ideophones and interjections

Within the limitations to which the research documented here was subject it was impossible to carry out any investigation of ideophones or interjections that would stand up to confrontation with real conversational data. I therefore present only those cases which I have been able to observe and analyse (with the help of my informants) from the texts tape-recorded by Wilhelm Staude.

## 4.1 Ideophones

The three ideophones (four tokens) in one of my Koromfe texts are used to express verb-like actions which are thought to be characterized by a particular sound. Syntactically, the ideophones in (894) and (896) are noun-like and both stand as the object NP of the verb *tıgam* 'put, do' (as English *go* in sentences like *'He went brrrrrr.'*). In (895) and (897) they are, if anything, adverb-like, and occur in sentence-final position.

(894)  kɔ̃m            ba               gonde          ga               tı
       when (CONJ.)   PRON. 3PL. HUM.  leave + PAST   PRON. 3SG. DIMIN.  do

       rɛ̃ɔ̃rɛ̃ɔ̃rɛ̃ɔ̃  ga                    jaʊ
       IDEOPH. (N)    PRON. 3SG. DIMIN.     go

       'When they had left, he went [rɛ̃ɔ̃rɛ̃ɔ̃rɛ̃ɔ̃] and left.' *('He' refers to a rabbit.)*

(895)  nɛŋgɛ  ɪ                      wɔ̃fə         dombʌ
       thus   PRON. 3PL. NON-HUM.    have + DUR.   comrade + PL. (=RECIPROCAL)

       tatãntãntãn
       IDEOPH. (ADV.)

       'This is how they (treated) one another: [tatãntãntãn].'

In (894) the ideophone [rɛ̃ɔ̃rɛ̃ɔ̃rɛ̃ɔ̃] represents the sound of a rabbit running away. It is spoken at a high constant pitch and the syllables follow one another in very fast succession. In (895) the ideophone [tatãntãntãn] represents the sound of the heavy footsteps of the elephant and the hippopotamus who are conducting a tug-of-war. The pitch is normal and remains constant throughout the ideophone, roughly in mid range; the first two syllables are spoken at normal speed (note that the first syllable is oral and has no final [n]); the second and third syllables are about half a second

long, and the third only about a quarter of a second, giving an impression of acceleration.

The ideophone [jedededededededede] is used twice in the same text as (895) (preceding it in the order (896) (...) (897) (...) (895)), both times with the same number of syllables, though the second time slightly faster over-all. The syllables are spoke in fast succession, accelerating towards the end. The pitch is in the higher mid range, but not high. This ideophone also denotes the sound of the animals' footsteps (though faster) during their tug-of-war.

(896)  a      jemdi                    tɪk(ɪ)      a      tife
      ART.  hippopotamus + SG.   do + DUR.   ART.  elephant + SG.

      jedededededededede
      IDEOPH. (N)

      'The hippopotamus went [jedededededededede] with the elephant.'

(897)  a      tife              mɔ̃    wileti  la          a      jemdi
      ART.  elephant + SG.  also  return  with (PREP.)  ART.  hippopotamus + SG.

      jedededededededede
      IDEOPH. (ADV.)

      'The elephant also did the same to the hippopotamus: [jedededededededede].'

# 4.2 Interjections violating regular principles of word structure

My informants believe that many interjections used in Koromfe are Arabic (at least in origin). Such words tend to have unusual sequences of vowels in the consecutive syllables, and are phonologically irregular as single words of Koromfe. The five long Arabic-like exclamations in my corpus are given in (898).

(898)    *Exclamations reported to be Arabic in origin*

| exclamation | gloss | comment |
|---|---|---|
| ajawoodi | 'Good lord!' | Has ATR-disharmonic vowels and intervocalic [d] (not even possible as a dissimilated reflex of /l/). |
| lahaʋla | 'Good lord!' | Has a diphthong in a non-initial syllable and medial [h] which otherwise only occurs in the suffix /hĩ/. |
| saalla | 'Really!' | Has the illicit sequence 'long vowel + geminate'. |
| tabaarənkalla | 'Thank goodness!' | Has a long vowel in a non-initial sylla-ble. |
| wallaɪ | 'Really!' | Has a diphthong in a non-initial sylla-ble. |

The words in (898) do not integrate into sentence structure, but are separate sentence-like entities which occur only at sentence boundaries.

The two exclamations given in (898) are more native-like, but still phonologically unusual. The first, [hʌdi], takes an NP argument which can be omitted if the reference is clear from the context.

(899)    *Exclamations with more Koromfe-like phonology and unknown origin*

| exclamation | gloss | comment |
|---|---|---|
| hʌdi | 'here is X', 'here it is' | Has intervocalic [d] (not even possible as a dissimilated reflex of /l/). Other phonetic variants are regular.[1] |
| ŋgɔɔŋga | 'really' | Has a long vowel followed by a homorganic 'nasal + oral voiced stop' sequence. |

# Notes to Chapter 4

[1] The other phonetic variants of the exclamation [hʌdi] are phonologically regular: [hãnɛ], [hɑ̃ni]. None of the three can be considered to be more frequently used (and hence more basic) than the others.

# 5 Lexicon

## 5.1 Structured semantic fields

List the lexical items in the following semantic fields, with glosses or explanations, indicating the parameters that are relevant to the semantic distinctions made:

### 5.1.1 Kinship terminology

The abbreviations used in the 'precise extension' column of the tables below are given in this footnote.[1] Recall that some of the complex NPs given below are structurally ambiguous, as described in §2.3.1.1.4 above. On the noun class suffixes of the terms given below, see §2.1.1.9.2.1.1–2 above.

*5.1.1.1 By blood*

The terms which in their basic meaning denote kinship by blood can also be used by extension for persons not related by blood or even not related at all. Therefore I have given the 'further extension' of the terms in (900) for a) relatives and b) unrelated persons. The complex terms in (901) do not have further extensions of this sort; it seems that the use of two or more lexical items of kinship pins the semantic interpretation down to kinship (i.e. excludes the class of 'close friends'), and particularly, where applicable, to kinship by blood.

(900)  *Simplex lexical items which primarily denote kinship by blood*

| singular plural[2] | gloss | precise extension | further extensions |
|---|---|---|---|
| bana banama | 'maternal uncle' | MoBr | (*unknown, probably none*)[3] |
| hʌwei hʌweimʌ | 'paternal aunt' | FaSi | (*unknown, probably none*) |
| jã jãmmã | 'mother' | Mo, FaWi | female relative of Mo's age; close female friend of Mo's age |

| singular plural[2] | gloss | precise extension | further extensions |
|---|---|---|---|
| jĩmde jĩmʌu | 'younger sibling' | Br(Ego⁻), Si(Ego⁻), FaSo(Ego⁻), FaDa(Ego⁻) | relative younger than ego |
| jɔ̃ɔ̃ndɔ jɔ̃ɔ̃nəba(ʊ) | 'elder sibling' | Br(Ego⁺), Si(Ego⁺), FaSo(Ego⁺), FaDa(Ego⁺) | relative older than ego |
| kaka kakama | 'grandfather, grandmother' | FaFa, FaMo, MoFa, MoMo | relative of grandparents' age (less usual) |
| nibgʌ nibni | 'grandchild, nephew, niece, cousin' | SoSo, SoDa, DaSo, DaDa, SiSo, SiDa, FaSiSo, FaSiDo, FaBrSo, FaBrDa | relative of grandchildren's age (less usual) |
| sa sammã | 'father, PL. ancestors' | Fa, FaBr (PL. all blood relatives of Fa, FaFa, FaFaFa, etc. of ascending generation > 0) | male relative of Fa's age; close male friend of Fa's age |

(901)  Compound kinship terms (typical terms, but not exhaustive). (Further extensions are not usual — see text.)

| singular plural[4] | gloss | precise extension |
|---|---|---|
| bʌndʌ bi[5] bʌndʌ bu | 'maternal cousin' | MoBrSo, MoBrDa |
| jĩmde bɔrɔ jĩmʌu bɛnna | 'younger brother' | Br(Ego⁻), FaSo(Ego⁻) |
| jĩmde bɔrɔ bi jĩmʌu bɛnna bu | 'younger brother (who is still a child)' | Br(Ego⁻,Ch), FaSo(Ego⁻,Ch) |
| jĩmde kɛ̃ɔ̃ jĩmʌu kɛna | 'younger sister' | Si(Ego⁻), FaDa(Ego⁻) |
| jĩmde kɛ̃ɔ̃ bi jĩmʌu kɛna bu | 'younger sister (who is still a child)' | Si(Ego⁻,Ch), FaDa(Ego⁻,Ch) |
| jɔ̃ɔ̃ndɔ bɔrɔ jɔ̃ɔ̃nəba(ʊ) bɛnna | 'elder brother' | Br(Ego⁺), FaSo(Ego⁺) |
| jɔ̃ɔ̃ndɔ bɔrɔ bi jɔ̃ɔ̃nəba(ʊ) bɛnna bu | 'elder brother (who is still a child)' | Br(Ego⁺,Ch), FaSo(Ego⁺,Ch) |
| jɔ̃ɔ̃ndɔ kɛ̃ɔ̃ jɔ̃ɔ̃nəba(ʊ) kɛna | 'elder sister' | Si(Ego⁺), FaDa(Ego⁺) |
| jɔ̃ɔ̃ndɔ kɛ̃ɔ̃ bu jɔ̃ɔ̃nəba(ʊ) kɛna bu | 'elder sister (who is still a child)' | Si(Ego⁺), FaDa(Ego⁺) |

| *singular* *plural*[4] | *gloss* | *precise extension* |
|---|---|---|
| sa ɟĩmde sa ɟĩmʌu | 'paternal uncle (younger than one's father)' | FaBr(Fa⁻) |
| sa ɟɔ̃ɔ̃ndɔ sa ɟɔ̃ɔ̃nəba(ʊ) | 'paternal uncle (older than one's father)' | FaBr(Fa⁺) |

### 5.1.1.2 By partial blood

There are no terms which exclusively or primarily denotes kinship terms of partial blood. Instead the 'by blood' terms are used; however, note the asymmetry of sex: there exist single lexical items for half-siblings with the same father, but not for half-siblings with the same mother. The Koromba men have as many wives as they can 'financially' support (including their common children); women cannot have more than one husband.

### 5.1.1.3 By marriage

Terms denoting persons who are related by marriage only are given in (902).

(902)   *Lexical items (simplex and complex) which primarily denote kinship by marriage. (Further extensions are not usual.)*

| *singular* *plural* | *gloss* | *precise extension* |
|---|---|---|
| barə ɟã / banĩã[6] barə ɟãmmã / banĩãmmã | 'mother-in-law, mother-in-law's co-wife' | HuMo, HuFaWi |
| barə kɛ̃ɔ̃ barə kɛna | 'co-wife' | HuWi |
| barə sa / bara sa barə sammã / bara sammã | 'father-in-law', PL. 'parents-in-law; husband's ancestors' | HuFa, (PL. HuFa + HuMo) |
| ɟã barə kɛ̃ɔ̃ ɟã barə kɛna | 'mother's co-wife' | FaWi(≠Mo) |
| ɟã beleɲʌ ɟãmmã belĩʎ / beleni | 'more junior co-wife of mother' | FaWi(≠Mo, Mo⁻) |
| ɟã kaɩmɔ ɟãmmã kaɩmba(ʊ) | 'more senior co-wife of mother' | FaWi(≠Mo, Mo⁺) |
| bara barama | 'husband' | Hu |
| kɛ̃ɔ̃ kɛna | 'wife' | Wi |

| singular plural | gloss | precise extension |
|---|---|---|
| nɛ bɔrɔ<br>    nɛ bɛnna | 'father-in-law', PL. '(male members of) wife's family' | WiFa, (PL. WiFa + WiFaBr +...) |
| nɛ kɛ̃ɔ̃<br>    nɛ kɛ̃na | 'mother-in-law' | WiMo |
| nɛɛba (PL.) | 'parents-in-law'[7] | WiFa+WiMo |

Recall that the word *kʊsa*, PL. *kʊsama* 'fiancé(e)' has the noun class suffix variants [a]/[ma] as many of the kinship terms given here (cf. §2.1.1.9.2.1.2). This might be construed as a 'kinship by affiliation' term. Otherwise there are no terms which specifically denote kinship by adoption, permanent/temporary, religious/secular, by fostering, by affiliation or by other parameters, therefore §5.1.1.4–7 are inapplicable.

### 5.1.2 Colour terminology

Koromfe has three basic colour terms in its native vocabulary, given in (903).

(903)   *Lexical items denoting basic colour terms:*
        *a) Nominal adjectives and abstract nouns of quality*

| singular | plural | colour | abstract (sg.) | gloss |
|---|---|---|---|---|
| pɔ̃nɔ̃ŋ | pɔ̃nĩã | white | pɔ̃nəmɛ̃ɛ̃ | 'whiteness, lightness' |
| sɔmdɛ | sɔma / sɔmĩã / sɔmaʊ | red | sɔmɔ̃ɛ̃ɛ̃ | 'redness' |
| bĩnĩŋ | bĩnĩʌ̃ | black | bĩnəmɛ̃ɛ̃ | 'blackness, darkness' |

        *b) Related verbs*[8]

| gerund | gloss |
|---|---|
| pʊsam | 'make/become white' |
| sɔ̃sam | 'make/become red' |
| birɛŋgʌm / birigʌm | 'make/become black' |

The range of these three colours is reported by my informants to be the same as the corresponding French terms *blanc, rouge, noir*. The word *sɔmdɛ* 'red' is also used to refer to white people;[9] *pɔ̃nɔ̃ŋ* is never used in this meaning. The terms *pɔ̃nɔ̃ŋ* 'white' and *bĩnĩŋ* 'black' are also used in the meanings 'light' and 'dark' respectively to modify other colours (both

basic and secondary). Syntactically the two colour terms are coordinated with *la*, as shown in (904).

(904)  a       pɛrgʊ      sɔmdɛ      la     bĩnĩŋ
       ART.    shirt + SG.   red + SG.   and   black + SG.

       'a dark red shirt'

Each of the three basic colour terms can be reduplicated to mean 'not quite X': *põnõŋ põnõŋ* 'off-white', *sɔmdɛ sɔmdɛ* 'reddish', *bĩnĩŋ* 'darkish, greyish'.

Secondary colour terms fall into two types: names of plants etc.[10] that have a particular colour, and loans (from French and Mòoré). These are given in (905) and (906) respectively. Some have no morphological plural, in which case the form given in the tables as SINGULAR is also used to modify plural nouns. Syntactically, these colour terms are used as post-modifying adjectives (i.e. without an article *a*) as in *a pɛrgʊ do* or *a pɛrgʊ do varam* 'a yellow shirt'.

(905)  *Secondary colour terms from plants etc. with a typical colour. (Usually with no plural.)*

| singular | gloss | colour |
|---|---|---|
| do (varam) | 'néré flour'[11] | yellow |
| fɔfrɛ jagalɪ | 'fresh leaf' | green |

(906)  *Secondary colour terms loaned from other languages. (Usually with no plural.)*

| singular | plural | colour | source (if known) |
|---|---|---|---|
| siti | | yellow | |
| kɛ̃ɛ̃ga | kɛ̃ɛ̃sʊ | blue, green | Mòoré 'blue, green' |
| bʊla | | blue (not green) | Fr. *bleu* (a dye) |
| toe nɛɛga | | green (not blue) | Mòoré 'crushed baobab leaves' |

The terms *kɛ̃ɛ̃ga* and *bʊla* are the only ones in (905) and (906) which can be reduplicated in the same way as the basic colour terms, to mean 'blue-greenish' and 'blue-ish' respectively.

Finally, there exist two special indeclinable adverb-like (or even ex-clamation-like) words which can be used to postmodify (for intensification) the word *sɔmdɛ* 'red', which is the only native word denoting solely a hue and not (also) brightness. The first is *kíúú*, transcribed with high tones because it is pronounced at a very high, steady pitch. Thus *a pɛrgʊ sɔmdɛ*

*kíúú* means 'a really red shirt'. The word *kíúú* can even be reduplicated for further intensification: *a pergʊ sɔmdɛ kíúú kíúú* 'a really, really red shirt'. The second postmodifier is *másà*, which has a high tone on its first syllable, followed by a low tone on the second. This postmodifier is inherently stronger than *kíúú* and cannot be reduplicated for further intensification: *a pergʊ sɔmdɛ másà* means 'an absolutely red shirt'.

### 5.1.3 Body parts

Some simplex body parts are given in (907), and some complex ones in (908). The latter can only be considered to be examples of the formation of names of body parts. Note that some of the simplex terms (each of which is described in the appropriate footnote) are used in specific compounds only, and cannot be used as independent words. This includes several second members of such compounds loaned from Mòoré.

(907)  *Simplex lexical items denoting body parts (excluding Mòoré loans used in compounds only)*

| singular | plural | basic extension[12] | further extension (if any) |
|---|---|---|---|
| bɛnnəŋa | bɛnnənɛ | 'anus, backside'[13] | |
| bɪndɛ | bɪna | 'heart' | (also 'seat of emotion') |
| bokʊ | bʊgənɛ | 'shoulder' | |
| datɛ | dara | 'chest' | |
| demsəre | demsʌ | 'ankle' | |
| dɪllaŋa | dɪllaʊ | 'tongue' | |
| dĩŋdɛ | dĩŋna | 'ear' | |
| dʊtɛ | dʊra | 'vagina' | |
| dumməne | dummʌ | 'knee | |
| fɔrʊ | forəfɪ | 'belly' | 'stomach, abdomen; character' |
| hilo | hilfɪ | 'voice'[14] | 'throat; sound; command' |
| hɔndəga | hɔndənɪ | 'navel' | |
| hɔ̃inɛ | hɔ̃jã | 'penis' | |
| hʊrəfe | hurii | 'testicle' | |
| jãm | --- | 'blood' | |
| ɟẽmmənɛ | ɟẽmmã | 'tooth' | |
| ɟɪbrɛ | ɟɪba | 'eye' | |
| ɟɪka | ɟɪgnɛ | 'face' | 'front' |
| ɟɪllaŋa | ɟɪllaʊ | 'breast' | |
| ɟɔgʊ | ɟɔgəma | 'jaw' | |

| singular | plural | basic extension[12] | further extension (if any) |
|---|---|---|---|
| kɪrfɛ | kɪrɪɪ | 'vagina' | |
| kɔ̃brɛ | kɔ̃ba | 'bone' | |
| kɔ̃ɛfɛ | kɔ̃ɛ | 'hair, feather' | |
| kɔtɛ | kɔra | 'back of the neck' | |
| kote | korʌ | 'pupil (of eye)'[15] | |
| kʊbɔ | kʊbfɪ | 'neck' | |
| kʊbrɛ | kʊba | 'bone' | |
| kʊlɔ | kʊləfɪ | 'body'[16] | |
| londi | londəfi | 'brain, (bone-) marrow' | |
| luu | lufi | 'intestine' | |
| nɛmmɔ̃ | --- | 'flesh, meat' | |
| nɪhem | --- | 'urine' | |
| poɡu | poi | 'shell' | 'fingernail, toenail, claw'[17] |
| sãbrɛ | sãba | 'liver' | |
| sãrɪa | sãrsʊ | 'filed tooth' | |
| sẽbtrɛ | sẽbta | 'fist/ankle'[18] | |
| sẽŋa | sẽŋnɛ / sẽŋna | 'backside, anus' | 'vagina (polite)' |
| sulle | sulʌ | 'forehead' | |
| tɛmdɛ | tɛma | 'beard' | |
| tɔ̃nɔ̃ŋ | tɔ̃nɔ̃ɪ | 'skin' | 'leather' |
| wɔ̃ndɛ | wãna | 'hand, arm' | 'branch' |
| wolle | wala | 'foot, leg' | 'footprint' |
| wũndəfe | --- | 'finger'[19] | |
| zɛŋdɛ | zɛŋa | 'upper arm' | |

(908)   *Examples of complex terms for body parts. (Here: nouns or NPs, given without their initial article, denoting parts of the eye, arm and leg. Words from Mòoré are so marked; words whose simplex meaning is unknown are marked '??'.)*

| jɪbrɛ | bi | PL. jɪba bu |
|---|---|---|
| eye + SG. | child + SG. | |

'eyeball'

| jɪbrɛ | bĩnĩŋ | PL. jɪba bĩnĩʌ̃ |
|---|---|---|
| eye + SG. | black + SG. | |

'pupil' (cf. simplex *kote*, PL. *korʌ* in (907), which must be used as *bĩnĩŋ* in this compound)

| wɔ̃nə | bɛtɛ | PL. wɔ̃nə bɛra |
|---|---|---|
| hand (STEM) | male non-human + SG. | |

'thumb'

| wɔ̃nə | bi | PL. wɔ̃nə bu |
|---|---|---|
| hand (STEM) | child + SG. | |

'finger'

| wɔ̃nə | pogu | PL. wɔ̃nə poi |
|---|---|---|
| hand (STEM) | shell + SG. | |

'fingernail'

| wɔ̃nə | sɛ̃btrɛ | PL. wɔ̃nə sɛ̃bta |
|---|---|---|
| hand (STEM) | split-off + SG. | |

'fist'

| wɔ̃n | soŋləgʌ | PL. wɔ̃n soŋləsi |
|---|---|---|
| hand (STEM) | ?? (*Mòoré*) + SG. | |

'elbow'

| wɔ̃n | tallɛ | PL. wɔ̃n tala |
|---|---|---|
| hand (STEM) | ??+ SG. | |

'palm (of the hand)'

| wolə | bi | PL. wolə bu |
|---|---|---|
| foot (STEM) | child + SG. | |

'toe'

| wol | gɛndrɛ | PL. wol gɛnda |
|---|---|---|
| foot (STEM) | bobbin + SG. | |

'ankle'

| wol | gɛndə | bi | PL. wol gɛndə bu |
|---|---|---|---|
| foot (STEM) | bobbin (STEM) | child + SG. | |

'ankle bone'

| wol | paaləga | PL. paalənɛ |
|---|---|---|
| foot (STEM) | ?? | |

'ankle'

| wol | poɡu | PL. wol poi |
| foot (STEM) | shell + SG. | |

'toenail'

| wol | sɛ̃btrɛ | PL. wol sɛ̃bta |
| foot (STEM) | split-off + SG. | |

'ankle'

| wol | tallɛ | PL. wol tala |
| foot (STEM) | ?? + SG. | |

'sole (of the foot)'

## 5.1.4 Cooking terminology

Since my informants and speakers on tape were all male, the view of the world of cooking among the Koromba that is given here may correspond not so much to the reality of those who cook (i.e. the women) as to the viewpoint of the consumers of the cooking. The following summary is intended as a general guideline only.

The staple diet is millet porridge, usually eaten with one hand, and dipped into a sauce. 'Sauce' is an important part of cooking: it must taste good and look good (i.e. slimy and smooth, not watery or lumpy). It is made from vegetables, herbs and leaves. Meat is eaten boiled, fried or barbecued. There is no equivalent of an oven or bread (except in towns for Europeans).

(909)  *Simplex verbs used in cooking terminology (all inflectionally regular except* horʌm*). (The grammatical subject of these verbs is always a person; the range of possible grammatical object NPs is given for each verb.)*

| *gerund* | *gloss* | *object NP* |
| --- | --- | --- |
| fillʌm[20] | 'boil and stir/whisk' | *sauce, thin porridge* |
| firedʌm | 'stir/whisk' | *any liquid with lumps (esp. sauce or thin porridge)* |
| haŋsam | 'prepare (for later cooking)' | *anything edible, esp. meat; peel vegetables or fruit* |
| hɔ̃ĩãm | 'barbecue (on skewers)' | *usually meat* |
| homsʌm | 'heat, boil' | *water (and nothing else)* |

| gerund | gloss | object NP |
|---|---|---|
| horʌm[21] | 'make porridge' | *porridge from millet (and nothing else)* |
| kɛləgam | 'fry (in a frying pan)' | *meat (usually with oil and onions)* |
| tagəlam | 'boil in water' | *meat, manioc, yams, rice (never millet), sauce* |

### 5.1.5 Other semantic fields

No other structured semantic fields have been systematically investigated, but general vocabulary can be found in my dictionary (Rennison, 1986a).

## 5.2 Basic vocabulary

In the following sub-sections, obvious Mòoré loans have been avoided wherever possible. Inflectional forms are given in the 'word form(s)' column only if one of the forms is irregular or unpredictable in some way. Nouns and nominal adjectives normally have two forms (SG. & PL.), plus sometimes singulative, collective or diminutive; verbs have a gerund or action noun and four inflectional forms (UNMARKED, PAST, PROGRESSIVE, DURATIVE); verbal adjectives and all other word classes have only a single form. Vowels given in parentheses occur in phrase-final realizations only.

### 5.2.1 all

| word form(s) | category | gloss(es) |
|---|---|---|
| dʊro (INDECL.) | post-nom. quantifier | 'all, each, every'; 'none' (+ neg. verb) |

### 5.2.2 and

| word form(s) | category | gloss(es) |
|---|---|---|
| la | CONJ. | 'and, but' (many homophones!) |

### 5.2.3 animal

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔʊ (SG.), dɔɔfɪ (PL.) | NOUN | 'animal' |
| kãŋ (SG.), hãõma (PL.) (sic!)[22] | NOUN | 'thing; wild animal' |

### 5.2.4 ashes

| word form(s) | category | gloss(es) |
|---|---|---|
| tɔm (SG.) (no plural) | NOUN | 'ashes, dust, earth' |

### 5.2.5 at

| word form(s) | category | gloss(es) |
|---|---|---|
| nɪ | POSTPOSITION | 'at, in, on; to, towards; from' |

### 5.2.6 back

| word form(s) | category | gloss(es) |
|---|---|---|
| bɛllɛ (SG.), bɛla (PL.) | NOUN | 'back, rear' |

### 5.2.7 bad

| word form(s) | category | gloss(es) |
|---|---|---|
| kanna (INDECL.) | NOM. & VERBAL ADJ. | 'bad tasting, bitter' |
| zaabı (SG. & PL.) | NOM. ADJ. | 'bad, evil' |
| zamdɛ (SG.)[23] | NOUN | 'bad' |

### 5.2.8 bark

| word form(s) | category | gloss(es) |
|---|---|---|
| pogolle (SG.), pogolʌ (PL.) | NOUN | 'shell, bark' |
| pogu (SG.), poi (PL.) | NOUN | 'shell, bark, claw, fingernail' |

### 5.2.9 because

| word form(s) | category | gloss(es) |
|---|---|---|
| ke | CONJ. | 'that, because' |

### 5.2.10 belly

| word form(s) | category | gloss(es) |
|---|---|---|
| fɔrʊ (SG.), forəfı (PL.) | NOUN | 'belly, stomach, abdomen, character' |

### 5.2.11 big

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔɔrɛ (SG.), dɔɔja (PL.) | NOM. ADJ. | 'long, tall' |
| kebre (SG.), kebiʌ (PL.) | NOM. ADJ. | 'big' |
| kebsʌm (GERUND)[24] | VERB | 'grow, be big' |
| nɔbam (GERUND) | VERB | 'grow' |

### 5.2.12 bird

| word form(s) | category | gloss(es) |
|---|---|---|
| lembəgʌ (SG.), lembii (PL.) | NOUN | 'bird' |

### 5.2.13 bite

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔ̃mam (GERUND) | VERB | 'bite' |

### 5.2.14 black

| word form(s) | category | gloss(es) |
|---|---|---|
| bĩnĩŋ (SG.), bĩnĩʌ̃ (PL.) | NOM. ADJ. | 'black, dark' |

### 5.2.15 blood

| word form(s) | category | gloss(es) |
|---|---|---|
| j̃ãm (SG.) (*no PL.*) | NOUN | 'blood' |

### 5.2.16 blow

| word form(s) | category | gloss(es) |
|---|---|---|
| feredʌm (GERUND) | VERB | 'whistle, blow (a flute)' |
| fʊsam (GERUND) | VERB | 'move, breathe, blow' |

### 5.2.17 bone

| word form(s) | category | gloss(es) |
|---|---|---|
| kʊbrɛ (SG.), kʊba (PL.) | NOUN | 'bone' |

### 5.2.18 breast

| word form(s) | category | gloss(es) |
|---|---|---|
| jɪllaŋa (SG.), jɪllaʊ (PL.) | NOUN | 'breast' |

### 5.2.19 breathe

| word form(s) | category | gloss(es) |
|---|---|---|
| fʊsam (GERUND) | VERB | 'move, breathe, blow' |

### 5.2.20 burn

| word form(s) | category | gloss(es) |
|---|---|---|
| zʊbam (GERUND) | INTRANS. VERB | 'burn' |

## 5.2.21 child

| word form(s) | category | gloss(es) |
|---|---|---|
| beləŋʌ (SG.), beleʌ (PL.), beleo (PL.), beliʌ (PL.) | NOUN | 'child, young (person)' |
| bi (SG.), bu (PL.) | NOUN | 'child, small part (of sth.)' |
| bĩĩŋʌ (SG.) | NOUN | 'small child' |

## 5.2.22 claw

| word form(s) | category | gloss(es) |
|---|---|---|
| pọgu (SG.), poi (PL.) | NOUN | 'shell, bark, claw, fingernail' |

## 5.2.23 cloud

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔtɛ (SG.), dɔra (PL.) | NOUN | 'cloud' |

## 5.2.24 cold

| word form(s) | category | gloss(es) |
|---|---|---|
| jarəgam (GERUND) | VERB | 'cool down, make cold' |
| mɛrgʊ (SG.), mɛrɪ (PL.) | NOUN | '(head-)cold' |
| wu (SG.) *(no plural)* | NOUN | 'cold'[25] |

## 5.2.25 come

| word form(s) | category | gloss(es) |
|---|---|---|
| bɛnam (GERUND), bɛ (UNM.), bɛnɛ (PAST), bɛllaa (PROG.), bɛll(ɪ) (DUR.) | VERB | 'come, arrive; FUTURE AUX.' |
| tɛram (GERUND), tɛ / tɛrɪ (UNM.)[26] | VERB | 'arrive' |

## 5.2.26 count

| word form(s) | category | gloss(es) |
|---|---|---|
| kalam (GERUND) | VERB | 'count' |

## 5.2.27 cut

| word form(s) | category | gloss(es) |
|---|---|---|
| dogomʌm (GERUND) | VERB | 'cut (into pieces)' |
| kɔtam (GERUND) | VERB | 'break, cut' |
| pasɡam (GERUND) | VERB | 'split, cut in two, cross' |
| tɔkam (GERUND) | VERB | 'cut, kill (an animal)' |

## 5.2.28 day

| word form(s) | category | gloss(es) |
|---|---|---|
| fɛndɛ (SG.) (*no plural*) | NOUN | 'moment, day, time' |
| fɪrɛ (SG.) (*no plural*) | NOUN | 'sun, daytime' |
| wete (SG.), werʌ (PL.) | NOUN | 'day, date' |

## 5.2.29 die

| word form(s) | category | gloss(es) |
|---|---|---|
| sɪbam (GERUND) | VERB | 'die' |
| sɔ̃m (SG.), sɔ̃mfɪ (PL.)[27] | NOUN | 'death' |

## 5.2.20 dig

| word form(s) | category | gloss(es) |
|---|---|---|
| fiɡʌm (GERUND) | VERB | 'bury' |
| fiɡetʌm (GERUND) | VERB | 'dig up' |
| ɡɔbam (GERUND) | VERB | 'dig (holes)' |
| hɛ̃nam (GERUND) | VERB | 'sew, dig, hand over' |

## 5.2.31 dirty

| word form(s) | category | gloss(es) |
|---|---|---|
| zɪɡam (SG.) (*no plural*) | NOUN | 'dirt' |
| zɪɡam sa (SG.), zɪɡam sammã (PL.) | NOUN, NOM. ADJ. | 'dirty' |

## 5.2.32 dog

| word form(s) | category | gloss(es) |
|---|---|---|
| vaɡa (SG.), vaɪ (PL.) | NOUN | 'dog' |

## 5.2.33 drink

| word form(s) | category | gloss(es) |
|---|---|---|
| hubʌm (GERUND) | VERB | 'drink up at one go' |
| jɔ̃ɔ̃m (GERUND) | VERB | 'drink, absorb, smoke' |

## 5.2.34 dry

| word form(s) | category | gloss(es) |
|---|---|---|
| kʊrgam (GERUND) | VERB | 'dry' |
| kʊrgɪ | VERBAL ADJ. | 'be dry' |

## 5.2.35 dull

| word form(s) | category | gloss(es) |
|---|---|---|
| zakʊ (SG.), zapa (PL.) | NOUN, NOM. ADJ. | 'silly, clumsy' |

There is no word for 'dull' in the sense 'blunt, not sharp': there only a relative clause can be used, e.g. *a gabrɛ kɔ̃m ba dɪra* 'a knife which does not consume'.

## 5.2.36 dust

| word form(s) | category | gloss(es) |
|---|---|---|
| fĩõ (SG.) (*no plural*) | NOUN | 'dust' |
| firede (SG.) (*no plural*) | NOUN | 'dust' |
| jɔ̃ɔ̃ (SG.) (*no plural*) | NOUN | 'earth, ground, dust, mortar' |
| tɔm (SG.) (*no plural*) | NOUN | 'ashes, dust, earth' |

## 5.2.37 ear

| word form(s) | category | gloss(es) |
|---|---|---|
| dĩŋdɛ (SG.), dĩŋna (PL.) | NOUN | 'ear' |

## 5.2.38 earth

| word form(s) | category | gloss(es) |
|---|---|---|
| jɔ̃ɔ̃ (SG.) (*no plural*) | NOUN | 'earth, ground, dust, mortar' |
| sẽnɛ | ADV. | 'to/on the ground, down' |
| tɔm (SG.) (*no plural*) | NOUN | 'ashes, dust, earth' |

### 5.2.39 eat

| word form(s) | category | gloss(es) |
|---|---|---|
| dɛɛm (=/dɪ+am/) (GERUND) | VERB | 'eat, consume, enjoy' |
| wɔ̃mam (GERUND) | VERB | 'eat, chew' |

### 5.2.40 egg

| word form(s) | category | gloss(es) |
|---|---|---|
| sondre (SG.), sondʌ (PL.) | NOUN | 'egg' |
| tosʌm (GERUND) | VERB | 'lay (an egg)' |

### 5.2.41 eye

| word form(s) | category | gloss(es) |
|---|---|---|
| jɪbrɛ (SG.), jɪba (PL.) | NOUN | 'eye' |

### 5.2.42 fall

| word form(s) | category | gloss(es) |
|---|---|---|
| dobolʌm (GERUND) | VERB | 'cause to fall' |
| solʌm (GERUND) | VERB | 'fall; fall upon' |

### 5.2.43 far

| word form(s) | category | gloss(es) |
|---|---|---|
| hɛ̃ɛ̃ / hɛ̃ã[28] | VERBAL ADJ. | 'be far away' |
| hɛ̃sam (GERUND) | VERB | 'put oneself at a distance' |

### 5.2.44 fat/grease

| word form(s) | category | gloss(es) |
|---|---|---|
| nɔ̃ŋa / nɔ̃ŋɔ̃ (SG.) (*no plural*) | NOUN | 'fat, grease, butter, oil' |

### 5.2.45 father

| word form(s) | category | gloss(es) |
|---|---|---|
| sa (SG.), sammã (PL.) | NOUN | 'father'[29] |

## 5.2.46 fear

| word form(s) | category | gloss(es) |
|---|---|---|
| fɔ̃ɪ̃sam (GERUND) | VERB | 'be afraid' |
| fɔ̃nnaa | VERBAL ADJ. | 'be afraid' |
| fɔ̃nnɛ̃ɛ̃ (SG.) (*no plural*) | NOUN | 'fear' |
| laɡəmãõ (PL.) (*no singular*) | NOUN | 'fear' |
| laɡam (GERUND) | VERB | 'be afraid' |
| laɡamam (GERUND) | VERB | 'frighten' |
| laɡfɪ (SG.) (*no plural*) | NOUN | 'fear' |

## 5.2.47 feather

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔ̃ɛ̃fɛ (SINGULAT.), kɔ̃ɛ̃ (COLL., PL.) | NOUN | 'hair, feather' |

## 5.2.48 few

There is no lexical item which directly expresses the notion of 'few'. The word *maŋəna* comes closest.

| word form(s) | category | gloss(es) |
|---|---|---|
| maŋəna (PL.) | POSTNOM. QUANTIFIER | 'some' |

## 5.2.49 fight

| word form(s) | category | gloss(es) |
|---|---|---|
| timʌm (GERUND) | VERB | 'fight, strain oneself' |
| timsi (PL.) (*no singular*) | NOUN | 'fight' |
| wolʌm (GERUND) | VERB | 'quarrel, fight; hurt oneself' |

## 5.2.50 fire

| word form(s) | category | gloss(es) |
|---|---|---|
| hamnɛ (SG.) (*no plural*) | NOUN | 'fire' |
| taam (GERUND) | VERB | 'fire (a weapon)' |

### 5.2.51 fish

| word form(s) | category | gloss(es) |
|---|---|---|
| ɟɛ̃nəfɛ (SINGULAT.), ɟɛ̃nɛ (COLL., PL.) | NOUN | 'fish' |

### 5.2.52 five

| word form(s) | category | gloss(es) |
|---|---|---|
| mɔm | NUMERAL | 'five' (when counting) |
| nɔm | NUMERAL ADJ. | 'five' (as a modifier) |

### 5.2.53 float

| word form(s) | category | gloss(es) |
|---|---|---|
| ɡalam (GERUND) | VERB | 'swim; have plenty, multiply'[30] |

### 5.2.54 flow

| word form(s) | category | gloss(es) |
|---|---|---|
| hulʌm (GERUND) | VERB | 'drip, flow' |
| horei (ACTION NOUN), hoe (UNM.), hoe (PAST), horʌʌ (PROG.), hor(u) (DUR.) | VERB | 'run, flee' |

### 5.2.55 flower

| word form(s) | category | gloss(es) |
|---|---|---|
| fite (SG.), firʌ (PL.) | NOUN | 'flower' |

### 5.2.56 fly

| word form(s) | category | gloss(es) |
|---|---|---|
| jɔɔm (=/jʊ+am/) (GERUND) | VERB | 'jump, fly' |
| tĩŋgfe (SINGULAT.), tĩŋgii (COLL., PL.) | NOUN | 'fly' (the insect) |

### 5.2.57 fog

| word form(s) | category | gloss(es) |
|---|---|---|
| hɔ̃kʊ (SG.) (*no plural*) | NOUN | 'fog'[31] |

493

### 5.2.58 foot

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| wolle (SG.), wala (PL.) | NOUN | 'foot, leg' |

### 5.2.59 four

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| maa | NUMERAL | 'four' (when counting) |
| naa | NUMERAL ADJ. | 'four' (as a modifier) |

### 5.2.60 freeze

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| wu (SG.) *(no plural)* | NOUN | 'cold'[32] |

### 5.2.61 fruit

There is no lexical item which exclusively expresses the notion of 'fruit'. Instead, the noun *bi*, PL. *bu* 'child' is used. To avoid potentially ambiguities with the many other compounds of this word, 'child of a tree/plant' is used.

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| fɛkʋ bi (SG.) | NOUN | 'fruit' (*lit.:* 'child of a tree') |

### 5.2.62 full

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| hibʌm (GERUND) | VERB | 'fill, be full' |
| hibsʌm (GERUND) | VERB | 'fill' |
| hibtʌm (GERUND) | VERB | 'fill' |

### 5.2.63 give

| *word form(s)* | *category* | *gloss(es)* |
|---|---|---|
| gɔrgam (GERUND) | VERB | 'give back, put back' |
| hẽnam (GERUND) | VERB | 'sew; dig; hand over' |
| panam (GERUND), pa (UNM.), panɛ (PAST), pandaa (PROG.), pand(ɪ) (DUR.) | VERB | 'give' |

### 5.2.64 good

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔ̃ndəmɛ̃ɛ̃ (SG.) (*no plural*) | NOUN | 'good, goodness' |
| hãnãŋ (SG.), hãnĩã (PL.), hãnãŋa (DIMIN. SG.) | NOM. ADJ. | 'good, nice, beautiful' |
| hãnãĩ (SG.) (*no plural*) | NOUN | 'goodness, beauty, generosity' |
| hãnãʊ̃ (SG.) (*no plural*) | NOUN | 'good turn, favour' |

### 5.2.65 grass

| word form(s) | category | gloss(es) |
|---|---|---|
| jomu (SG.) (*no plural*) | NOUN | 'grass, fodder (for animals)' |
| wɔ̃ɛ̃fɛ / wɛ̃ĩfɛ / wãɪfɛ (SINGULAT.), wɔ̃ɛ̃ / wɛ̃ĩ / wãĩ (COLL., PL.) | NOUN | 'grass (generic), straw; snake (secret)'[33] |
| jãntrɛ (SG.), jãnta (PL.) | NOUN | 'kind of grass' (for roofs) |
| kɛlgɛɪfɛ (SINGULAT.), kɛlgɛɪ (COLL., PL.) | NOUN | 'kind of grass' (edible) |
| komgu (SG.), komi (PL.) | NOUN | 'kind of grass; kind of tree' |
| pʊpaarɛ (SG.), pʊpaaja (PL.) | NOUN | 'kind of grass' (long) |
| sete (SG.), serʌ (PL.) | NOUN | 'kind of grass' |

### 5.2.66 green

There is no commonly used native Koromfe word for 'green' (cf. §5.1.2 above). The most common term is the Mòoré loan given below.

| word form(s) | category | gloss(es) |
|---|---|---|
| kɛ̃ɛ̃ga (SG.), kɛ̃ɛ̃sʊ (PL.) | NOM. ADJ. | 'blue, green' (Mòoré) |

### 5.2.67 guts

| word form(s) | category | gloss(es) |
|---|---|---|
| luu (SG.), lufi (PL.) | NOUN | 'intestines; gluttony' |

### 5.2.68 hair

Normally the word *kɔ̃ɛ̃fɛ* 'hair' given here is sufficient to denote hair when used alone; for disambiguation *jũ kɔ̃ɛ̃fɛ* (lit. 'head hair') is used.

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔ̃ɛ̃fɛ (SINGULAT.), kɔ̃ɛ̃ (COLL., PL.) | NOUN | 'hair, feather' |

## 5.2.69 hand

| word form(s) | category | gloss(es) |
|---|---|---|
| wɔ̃ndɛ (SG.), wãna (PL.) | NOUN | 'hand, arm' |

## 5.2.70 he

| word form(s) | category | gloss(es) |
|---|---|---|
| də | PROCLITIC PRON. | 'he, she, his, her' (human) |
| dɪ | POSTCLITIC PRON. | 'him, her' (human) |
| dəkɔ | FREE PRON. | 'he, she, him, her, his' (human) |
| gʊ | PROCLITIC & POSTCLITIC PRON. | 'he, she, him, her, his, it, its' (non-human) |
| gʊkɔ | FREE PRON. | 'he, she, him, her, his, it, its' (non-human) |
| ga | PROCLITIC & POSTCLITIC PRON. | 'he, she, him, her, his, it, its' (diminutive) |
| gakɔ | FREE PRON. | 'he, she, him, her, his, it, its' (diminutive) |

## 5.2.71 head

| word form(s) | category | gloss(es) |
|---|---|---|
| ɟɔ̃ (SG.), ɟʊfɪ (PL.) | NOUN | 'head' |

## 5.2.72 hear

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔ̃mənam (GERUND) | VERB | 'hear, listen, understand' |

## 5.2.73 heart

| word form(s) | category | gloss(es) |
|---|---|---|
| bɪndɛ (SG.), bɪna (PL.) | NOUN | 'heart' |

### 5.2.74 heavy

| word form(s) | category | gloss(es) |
|---|---|---|
| dʊboi (SG.) (*no plural*) | NOUN | 'weight; respect, obedience' |
| dugulʌ | VERBAL ADJ. | 'be heavy' |

### 5.2.75 here

| word form(s) | category | gloss(es) |
|---|---|---|
| jere | ADV. | 'here' |

### 5.2.76 hit

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔmam (GERUND) | VERB | 'hit, tap, drum' |
| hɛ̃mam (GERUND) | VERB | 'meet, reach; hit (a target)' |
| pɔ̃mam (GERUND) | VERB | 'hit, knock, bang' |
| sukʌm (GERUND) | VERB | 'hit, beat' |
| vabalam (GERUND) | VERB | 'hit, beat' |
| zʊkam (GERUND) | VERB | 'hit, knock, tap' |

### 5.2.77 hold/take

| word form(s) | category | gloss(es) |
|---|---|---|
| dollotʌm (GERUND) | VERB | 'take (sth. that was put somewhere)'[34] |
| ĵɛ̃ɛ̃m / ĵɛjãm (GERUND) | VERB | 'catch, take hold of' |
| kekʌm (GERUND) | VERB | 'pick up, pluck, take' |
| nɔgsam (GERUND) | VERB | 'pinch; take a pinch of' |
| soŋgʌm (GERUND) | VERB | 'receive, take, accept, obey, agree' |
| zãŋgam (GERUND) | VERB | 'take, pick up; marry (a man)' |
| zããm (GERUND) | VERB | 'take with one' |

### 5.2.78 horn

| word form(s) | category | gloss(es) |
|---|---|---|
| jɪllɛ (SG.), jɪla (PL.) | NOUN | 'horn' |

497

## 5.2.79 how

| word form(s) | category | gloss(es) |
|---|---|---|
| kãnã | INTERROG. ADV. | 'how?' |
| nãŋkãã[35] | INTERROG. ADV. | 'how?' |

## 5.2.80 hunt

| word form(s) | category | gloss(es) |
|---|---|---|
| gɔmam (GERUND) | VERB | 'pursue, chase, hunt' |
| jomde (SG.) (no plural) | NOUN | 'hunting' |
| sɔbəlam (GERUND) | VERB | 'hunt' |
| sɔbɪɪ (SG.) (no plural) | NOUN | 'hunting' |
| sɔbɔ (SG.), sɔpa (PL.) | NOUN | 'hunter' |

## 5.2.81 husband

| word form(s) | category | gloss(es) |
|---|---|---|
| bara (SG.), barama (PL.) | NOUN | 'husband' |

## 5.2.82 I

| word form(s) | category | gloss(es) |
|---|---|---|
| mə | PROCLITIC PRON. | 'I, my' |
| mɛ | POSTCLITIC PRON. | 'me' |
| məkɔ | FREE PRON. | 'I, me, my' |

## 5.2.83 ice

There is no ice in the climate or culture of the Koromba, and no word for it; only hail occurs.[36]

| word form(s) | category | gloss(es) |
|---|---|---|
| kandrɛ (SG.), kanda (PL.) | NOUN | 'hail' |

## 5.2.84 if

There is no word for 'if'; conditional adverb clauses are formed by verbal inflection only, without a conjunction (see §1.1.2.4.2.5 above). The adverb *maanɛ* which occurs in some conditional clauses is optional, and is used as

an intensifier similar to English 'only' in 'if only...'; it therefore does not mean 'if'.

### 5.2.85 in

| word form(s) | category | gloss(es) |
|---|---|---|
| nɪ | POSTPOSITION | 'at, in, on; to, towards; from' |

### 5.2.86 kill

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔɔm (=/kʊ+am/) (GERUND) | VERB | 'kill' |

### 5.2.87 knee

| word form(s) | category | gloss(es) |
|---|---|---|
| dummǝne (SG.), dummʌ (PL.) | NOUN | 'knee' |

### 5.2.88 know

| word form(s) | category | gloss(es) |
|---|---|---|
| bãɪ̃ (UNM.) *(no other forms)*[37] | VERB | 'not know' |
| gelʌm (GERUND) | VERB | 'know, recognize' |
| ɟããm (GERUND), ɟãã (UNM.) *(no other forms)* | VERB | 'know' |
| ɟẽlɛɪ (SG.) *(no plural)* | NOUN | 'knowledge' |

### 5.2.89 lake

| word form(s) | category | gloss(es) |
|---|---|---|
| taʊ (SG.), taʊfɪ (PL.) | NOUN | 'pond, lake, well, river'[38] |

### 5.2.90 laugh

| word form(s) | category | gloss(es) |
|---|---|---|
| mɔ̃mam (GERUND) | VERB | 'laugh' |
| mɔ̃msɪ (PL.) *(no singular)* | NOUN | 'laughter' |

## 5.2.91 leaf

| word form(s) | category | gloss(es) |
|---|---|---|
| fɔ́frɛ (SINGULAT.), fɔ́ (COLL.), fɔ́fɪ (PL.) | NOUN | 'leaf' |

## 5.2.92 leftside

| word form(s) | category | gloss(es) |
|---|---|---|
| gokʌ (SG.), gogədu (PL.)[39] | NOUN | 'left hand, left side' |

## 5.2.93 leg

| word form(s) | category | gloss(es) |
|---|---|---|
| wolle (SG.), wala (PL.) | NOUN | 'foot, leg' |

## 5.2.94 lie (i.e. be in lying position)

| word form(s) | category | gloss(es) |
|---|---|---|
| babtam (GERUND) | VERB | 'lie (in wait)' |
| hoigu (ACTION NOUN), hori (UNM.), hore (PAST), hoifʌʌ (PROG.), hoif(u) (DUR.) | VERB | 'lie down, lie' |
| lɛbɛlam (GERUND) | VERB | 'lie (in wait)' |

## 5.2.95 live

| word form(s) | category | gloss(es) |
|---|---|---|
| tukʌm (GERUND) (*irreg. but has all forms*) | VERB | 'sit, exist, live' |
| wɛ̃ɛ̃lɛɪ (ACTION NOUN), wɛ̃ (UNM. & PAST), wɛ̃naa / wãnaa (PROG.), wɛ̃n(ɛ) (DUR.) | VERB | 'be, exist, live' |
| fei (INDECL.)[40] | NOM. ADJ. | 'alive' |
| felei (ACTION NOUN), fefʌʌ (PROG.), fef(u) (DUR.) (*no other forms*) | VERB | 'live, exist' |

## 5.2.96 liver

| word form(s) | category | gloss(es) |
|---|---|---|
| sãbrɛ (SG.), sãba (PL.) | NOUN | 'liver' |

### 5.2.97 long

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔɪsam | VERB | 'lengthen; become long, grow' |
| dɔjaa | VERBAL ADJ. | 'be long' |
| dɔɪ (SG.) (*no plural*) | NOUN | 'length' |
| dɔɔrɛ (SG.), dɔɔja (PL.) | NOM. ADJ. | 'long, tall' |

### 5.2.98 louse

| word form(s) | category | gloss(es) |
|---|---|---|
| zekʌ (SG.), zeɡni (PL.) | NOUN | 'louse' |

### 5.2.99 man/male

| word form(s) | category | gloss(es) |
|---|---|---|
| bɔrɔ (SG.), bɛnna (PL.) | NOUN / NOM. ADJ. | 'man, male (human)' |
| bɛtɛ (SG.), bɛra (PL.), bɛrəga (DIMIN. SG.) | NOUN | 'male (animal)' |

### 5.2.100 many

| word form(s) | category | gloss(es) |
|---|---|---|
| kesem (INDECL.) | NOUN / NOM. ADJ./ ADV.[41] | 'much, many' |
| pɔte / pɔtʊ | VERBAL ADJ. | 'be much, be many' |
| pɔtʊ (INDECL.) | NOUN / NOM. ADJ. | 'much, many' |
| wasɪ (INDECL.) | NOUN / NOM. ADJ. | 'much, many' |

### 5.2.101 meat/flesh

| word form(s) | category | gloss(es) |
|---|---|---|
| nɛ̃mmɔ̃ (SG.) (*no plural*) | NOUN | 'meat, flesh' |
| pʊtʊ (SG.), pʊtəfɪ (PL.) | NOUN | 'flesh (of fruit)' |

### 5.2.102 moon

| word form(s) | category | gloss(es) |
|---|---|---|
| pɪlaŋ / pɪlaŋa (SG.), pɪlaʊ (PL.) | NOUN | 'moon, month' |

### 5.2.103 mother

| word form(s) | category | gloss(es) |
|---|---|---|
| ɟã (SG.), ɟãmmã (PL.) | NOUN | 'mother (human)'[42] |
| ɟãõ (SG.), ɟãanɛ (PL.)[43] | NOUN | 'mother (of an animal)' |

### 5.2.104 mountain

| word form(s) | category | gloss(es) |
|---|---|---|
| dɛrga (SG.), dɛrɪɪ (PL.) | NOUN | 'mountain, hill' |
| dɔllɛ (SG.), dɔla (PL.) | NOUN | 'small hill, rise' |

### 5.2.105 mouth

| word form(s) | category | gloss(es) |
|---|---|---|
| nẽnɛ (SG.), nẽɟã (PL.) | NOUN | 'mouth, beak, muzzle, snout; entrance; blade (of a knife)' |

### 5.2.106 name

| word form(s) | category | gloss(es) |
|---|---|---|
| segre (SG.), segiʌ (PL.) | NOUN | '(first) name' |
| segtʌ (SG.) segtʌfi (PL.) | NOUN | 'family name' |

### 5.2.107 narrow

| word form(s) | category | gloss(es) |
|---|---|---|
| fɛləŋa (SG.), fɛləmɛ (PL.) | NOM. ADJ. | 'narrow, thin' |
| fɛləmaa | VERBAL ADJ. | 'be narrow, be thin' |

### 5.2.108 near

| word form(s) | category | gloss(es) |
|---|---|---|
| hɛrga | POSTPOS. | 'next to, near' |
| woroŋgʌm (GERUND)[44] | VERB | 'approach, be near' |

### 5.2.109 neck

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔtɛ (SG.), kɔra (PL.) | NOUN | 'back of the neck' |
| kʊbɔ (SG.), kʊbfɪ (PL.) | NOUN | 'neck' |

### 5.2.110 new

| word form(s) | category | gloss(es) |
|---|---|---|
| feleŋ / feleɲʌ (SG.), feleʎ̃ / feleɟʎ̃ (PL.) | NOM. ADJ. | 'new' |

### 5.2.111 night

| word form(s) | category | gloss(es) |
|---|---|---|
| j̃ɛ̃nɛ (SG.), j̃ɛ̃nəma (PL.) | NOUN | 'night' |

### 5.2.112 nose

| word form(s) | category | gloss(es) |
|---|---|---|
| põmdɛ (SG.), põma (PL.) | NOUN | 'nose' |

### 5.2.113 not

| word form(s) | category | gloss(es) |
|---|---|---|
| ba | NEG. PARTICLE | 'not' |
| aa | ?? NEG. PARTICLE[45] | 'not' |

### 5.2.114 old

| word form(s) | category | gloss(es) |
|---|---|---|
| kaɪm̃ɔ / kɛmm̃ɔ (SG.), kaɪmbaʊ (PL.) | NOUN / NOM. ADJ. | 'old (human)' |
| kɛmm̃ɛ̃ɛ̃ (SG.) (*no plural*) | NOUN | 'old age; old people'[46] |
| kɪrkɔka (SG.), kɪrkɔgnɛ / kɪrkɔgəba (PL.) | NOUN | 'old woman (derisive)' |
| kõɔ̃nɛ / kõŋənɛ (SG.), kõɔ̃j̃ã (PL.) | NOM. ADJ. | 'old' |

### 5.2.115 one

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔm | NUMERAL ADJ. | 'one' (as a modifier) |
| dʊfɛ | NUMERAL ADJ. | 'one' (as a modifier) |
| gadɔm | NUMERAL | 'one' (when counting) |
| ndom | NUMERAL | 'one' (when counting) |

### 5.2.116 other

| word form(s) | category | gloss(es) |
|---|---|---|
| dono (SG.), dombʌ (PL.) | NOUN | 'comrade, neighbour, other (of the same kind)' |
| sɔrəgʊ (SG.), sɔrəhɛ̃ (PL.) | NOM. ADJ. | 'other (non-human)' |
| sɔrɔ (SG.), sɔrəba (PL.) | NOM. ADJ. | 'other (human)' |

### 5.2.117 person

| word form(s) | category | gloss(es) |
|---|---|---|
| fo (SG.), fʊba (PL.) | NOUN | 'person' (PL. 'people') |

### 5.2.118 play

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔmam (GERUND) | VERB | 'hit, tap, play (a drum)' |
| feredʌm (GERUND) | VERB | 'whistle, play (a flute)' |
| hɔ̃nɛ̃ (ACTION NOUN), hɔ̃n (UNM.), hɔ̃nɛ (PAST), hɔ̃ndaa (PROG.), hɔ̃nd(ʊ) (DUR.) | VERB | 'amuse oneself, play, dance' |

### 5.2.119 pull

| word form(s) | category | gloss(es) |
|---|---|---|
| dɛ̃nam (GERUND) | VERB | 'pull (towards oneself)' |
| pɛɛtam (GERUND) | VERB | 'pull (by the hand); marry (a woman)' |
| tʊsam (GERUND) | VERB | 'pull (out of a pile)' |
| zʊgtam (GERUND) | VERB | 'pull (hard)' |

### 5.2.120 push

| word form(s) | category | gloss(es) |
|---|---|---|
| jɔ̃kam (GERUND) | VERB | 'stab, push in' |
| darəgam (GERUND) | VERB | 'push, shove' |

### 5.2.121 rain

| word form(s) | category | gloss(es) |
|---|---|---|
| nɛ̃ɛ̃m (=/nɛ̃+am/) (GERUND) | VERB | 'defecate, urinate, rain'[47] |
| sigʌ (SG.), signi (PL.) | NOUN | 'rainy season' |
| vɛŋa (SG.), vɛŋənɛ (PL.) | NOUN | 'rain' |

### 5.2.122 red

| word form(s) | category | gloss(es) |
|---|---|---|
| sɔmdɛ (SG.), sɔma (PL.) sɔmĩ̃ã (PL.) sɔmaʊ (PL.) | NOUN / NOM. ADJ. | 'red; white person' |

### 5.2.123 right/correct

| word form(s) | category | gloss(es) |
|---|---|---|
| maɡtam (GERUND) | VERB | 'be correct, appropriate, agreeable'[48] |
| zemgu (SG.) (*no plural*) | NOUN | 'right'[49] |

### 5.2.124 rightside

| word form(s) | category | gloss(es) |
|---|---|---|
| dɪgrɛ (SG.), dɪgɪa (PL.) | NOUN | 'right hand, right side' |

### 5.2.125 river

| word form(s) | category | gloss(es) |
|---|---|---|
| taʊ (SG.), taʊfɪ (PL.) | NOUN | 'pond, lake, well, river'[38] |
| ɡote (SG.), ɡorʌ / ɡorʌu (PL.) | NOUN | 'stream, river' |

### 5.2.126 road

| word form(s) | category | gloss(es) |
|---|---|---|
| bɔrʊ (SG.), bɔrəfɪ (PL.) | NOUN | 'road, way, journey'[50] |
| bɔrəga (DIMIN. SG. of *bɔrʊ*) (*no plural*) | NOUN | 'path' |

### 5.2.127 root

| word form(s) | category | gloss(es) |
|---|---|---|
| kutre (SG.), kutʌ (PL.) | NOUN | 'root' |

### 5.2.128 rope

| word form(s) | category | gloss(es) |
|---|---|---|
| gamsərɛ (SG.), gamsa (PL.) | NOUN | 'skipping rope' |
| jondo (SG.), jondii (PL.) | NOUN | 'rope' |

### 5.2.129 rotten

| word form(s) | category | gloss(es) |
|---|---|---|
| josʌm (GERUND) | VERB | 'rot, decompose' |
| wɔ̃ŋgam (GERUND) | VERB | 'rot, decompose; spoil (a child)'[51] |

### 5.2.130 round

| word form(s) | category | gloss(es) |
|---|---|---|
| gindegʌ (SG.), gindeni (PL.) | NOM. ADJ. | 'round' |

### 5.2.131 rub

| word form(s) | category | gloss(es) |
|---|---|---|
| dirigʌm (GERUND) | VERB | 'rub' |
| dugsʌm (GERUND) | VERB | 'respect; rub, soap' |

### 5.2.132 salt

| word form(s) | category | gloss(es) |
|---|---|---|
| sɔmmɔ̃ (SG.) (*no plural*) | NOUN | 'salt' |

### 5.2.133 sand

| word form(s) | category | gloss(es) |
|---|---|---|
| hɪlaʊ (SG.), hɪlaʊfɪ (PL.) | NOUN | 'sand' |

### 5.2.134 say

| word form(s) | category | gloss(es) |
|---|---|---|
| bolʌm (GERUND), bo (UNM.), bole (PAST), bollʌʌ (PROG.), boll(u) (DUR.) | VERB | 'say' |

### 5.2.135 scratch

| word form(s) | category | gloss(es) |
|---|---|---|
| hɔ̃kam (GERUND) | VERB | 'scratch' |

### 5.2.136 sea

There is no sea anywhere near where the Koromba live, and therefore no lexical item for it.

### 5.2.137 see

| word form(s) | category | gloss(es) |
|---|---|---|
| jelʌm (GERUND), je (UNM.) *(all other forms are regularly formed form the stem /jel/)* | VERB | 'see, watch, take care of, visit' |
| naam (GERUND), na (UNM.) *(no other forms)* | VERB | 'see, perceive, find' |
| niilei (ACTION NOUN), ni (UNM.) *(no other forms)*[52] | VERB | 'see, perceive, find' |

### 5.2.138 seed

| word form(s) | category | gloss(es) |
|---|---|---|
| bɪrəgʊ (SG.), bɪrɪɪ (PL.) | NOUN | 'spirit, that which grows'[53] |
| digʌm (GERUND) | VERB | 'sow' |
| sʊrəgam (GERUND) | VERB | 'drop, (wind-)sow' |

### 5.2.139 sew

| word form(s) | category | gloss(es) |
|---|---|---|
| h̃ẽnam (GERUND) | VERB | 'sew; dig; hand over' |

### 5.2.140 sharp

There is no word which directly corresponds to 'sharp' in the sense of something which cuts sharply: so, for example for a knife, only a relative clause can be used, e.g. *a gabrɛ kɔ̃n dɪraa* 'a knife which consumes'. The noun *samdɛ*, PL. *sama* 'pointed object; arrow' does not imply sharpness, but only pointedness.

### 5.2.141 short

| word form(s) | category | gloss(es) |
|---|---|---|
| dʊmbəga (SG.), dʊmbənɪ (PL.) | NOUN / NOM. ADJ. | 'small piece; small, short' |
| jɔ̃ɔɲa (SG.), jɔ̃ɔ̃nɛ (PL.) | NOM. ADJ. | 'small, short' |
| kʊməɲa (SG.), kʊmənɪ (PL.) | NOM. ADJ. | 'short' |

### 5.2.142 sing

| word form(s) | category | gloss(es) |
|---|---|---|
| lelʌm (GERUND) | VERB | 'sing' |
| nãnəfɛ (SINGULAT.), nãnɛ (COLL., PL.) | NOUN | 'song, singing' |
| nãnnɔ̃ (SG.) (*no plural*) | NOUN | 'song, singing' |

### 5.2.143 sit

| word form(s) | category | gloss(es) |
|---|---|---|
| tukʌm (GERUND), tuko (UNM.), tuke (PAST), tufʌʌ (PROG.), tuf(u) | VERB | 'sit, exist, live ' |

### 5.2.144 skin

| word form(s) | category | gloss(es) |
|---|---|---|
| tɔ̃nɔ̃ŋ (SG.), tɔ̃nɔ̃ɪ (PL.) | NOUN | 'skin; leather' |

## 5.2.145 sky

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔba | ADV. | 'up; in(to) the sky' |

There are no nouns denoting the sky or the ground in general. Instead, the adverbs 'in the sky' and 'on the ground' are used, as exemplified in sentence (910), a prayer uttered when sacrificing millet-water to the earth (in hope of a good harvest). Note that neither the compound NP *dɔba kɛ̃ɔ̃* 'wife of the sky' nor the simplex nominally used adverb *sɛ̃nɛ* have the article *a* which would be obligatory if *dɔba* and *sɛ̃nɛ* were true nouns in this usage. As a noun, *dɔba* is only used in the sense of 'top', not of 'sky'.

(910) dɔba          kɛ̃ɔ̃          sɛ̃nɛ          soŋ    də
       in the sky (ADV.)   woman + SG.   on the ground (ADV.)   take   PRON. 3SG. HUM.

       dɪ
       eat

       '(May) the wife of the sky, the earth, take (this) and consume it.'

## 5.2.146 sleep

| word form(s) | category | gloss(es) |
|---|---|---|
| dɛm (GERUND/ACTION NOUN),[54] dɛɪ (UNM.), dɛrɛ (PAST), dɛjaa (PROG.), dɛr(ɪ) (DUR.) | VERB | 'sleep, fall asleep' |

## 5.2.147 small

Alongside the words given in the following table, it is quite usual to find a diminutive noun class suffix expressing the notion of smallness.

| word form(s) | category | gloss(es) |
|---|---|---|
| dʊmbəga (SG.), dʊmbənɪ (PL.) | NOUN / NOM. ADJ. | 'small piece; small, short' |
| jɔ̃ɔŋa (SG.), jɔ̃ɔ̃nɛ (PL.) | NOM. ADJ. | 'small, short' |
| wʊrfaa | VERBAL ADJ. | 'be small' |

## 5.2.148 smell

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔ̃ɔ̃ (SG.), kɔ̃ɔ̃fɪ (PL.) | NOUN | 'smell, odour' |

### 5.2.149 smoke

| word form(s) | category | gloss(es) |
|---|---|---|
| ĵɔ̃ɔ̃m (=/ĵɔ̃+am/) (GERUND) | VERB | 'drink, absorb; smoke'[55] |
| jigei (SG.) (*no plural*) | NOUN | 'smoke' |

### 5.2.150 smooth

| word form(s) | category | gloss(es) |
|---|---|---|
| halla | VERBAL ADJ. | 'be smooth, be slimy' |
| pɪlam (GERUND) | VERB | 'trample flat'[56] |

### 5.2.151 snake

| word form(s) | category | gloss(es) |
|---|---|---|
| doŋfe (SG.), domi (PL.) | NOUN | 'snake' |
| wɔ̃ɛ̃fɛ / wɛ̃ɪ̃fɛ / wãɪfɛ (SINGULAT.), wɔ̃ɛ̃ / wɛ̃ɪ̃ / wãɪ (COLL., PL.) | NOUN | 'grass (generic), straw; snake (secret)'[33] |

### 5.2.152 snow

There is no snow and no word for snow; only hail occurs.

| word form(s) | category | gloss(es) |
|---|---|---|
| kandrɛ (SG.), kanda (PL.) | NOUN | 'hail' |

### 5.2.153 some

| word form(s) | category | gloss(es) |
|---|---|---|
| maŋəna (PL.) | POSTNOM. QUANTIFIER | 'some' |

### 5.2.154 spit

| word form(s) | category | gloss(es) |
|---|---|---|
| nɛntɔm / nɛtɔm (SG.) | NOUN | 'saliva, spit'[57] |

## 5.2.155 split

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔrɔtam (GERUND) | TRANS. VERB | 'separate, divide' |
| pasam (GERUND) | TRANS. VERB | 'split' |
| pasɠam (GERUND) | TRANS. VERB | 'split, cut in two; cross' |
| sɛ̃btam (GERUND) | TRANS. VERB | 'split, divide' |
| sɛ̃kam (GERUND) | TRANS. VERB | 'split, hit' |
| sɔjam (GERUND) | TRANS. VERB | 'split, separate, divide' |

## 5.2.156 squeeze

| word form(s) | category | gloss(es) |
|---|---|---|
| kamam (GERUND) | VERB | 'press, squeeze; be like' |

## 5.2.157 stab/pierce

| word form(s) | category | gloss(es) |
|---|---|---|
| ɠʊbam (GERUND) | VERB | 'pierce' |
| jɔ̃kam (GERUND) | VERB | 'stab, push in' |

## 5.2.158 stand

| word form(s) | category | gloss(es) |
|---|---|---|
| hɪtam (GERUND) (*all regular forms, plus 2 alternatives:* hɪfaa (PROG.), hɪfʊ (DUR.)) | VERB | 'stop, stand, stand up, wait' |
| ɟɛ̃ŋsam (GERUND) | VERB | 'stand up, get up, stand; break out (disease); emigrate' |

## 5.2.159 star

| word form(s) | category | gloss(es) |
|---|---|---|
| ɟɔ̃nəfɛ (SINGULAT.), ɟɔ̃nɛ (COLL., PL.) | NOUN | 'star; ant'[58] |

### 5.2.160 stick

| word form(s) | category | gloss(es) |
|---|---|---|
| dãĩnɛ (SG.), dãjã (PL.), dãĩŋa (DIMIN. SG.) | NOUN | 'wood, stick; object made of wood' |
| dɔmmǝgʊ (SG.), dɔmmǝhɛ̃ (PL.) | DERIVED NOUN | 'instrument for hitting; drumstick' |
| fillǝɲʌ (SG.), fillǝni (PL.) | DERIVED NOUN | 'forked stick for cooking sauce; whisk' |
| pʊllɛ (SG.), pʊla (PL.) | DERIVED NOUN | 'stick' |

### 5.2.161 stone

| word form(s) | category | gloss(es) |
|---|---|---|
| ɠeŋde (SG.), ɠeŋʌ (PL.) | NOUN | 'stone' |

### 5.2.162 straight

| word form(s) | category | gloss(es) |
|---|---|---|
| tɪrga (SG.), tɪrsʊ (PL.) | NOUN / NOM. ADJ. | 'straight, straight ahead' (Mòoré) |

### 5.2.163 suck

| word form(s) | category | gloss(es) |
|---|---|---|
| mẽŋam (GERUND) | VERB | 'remain; suck' |
| mɔ̃gsam (GERUND) | VERB | 'suck' |

### 5.2.164 sun

| word form(s) | category | gloss(es) |
|---|---|---|
| fɪrɛ (SG.) (*no plural*) | NOUN | 'sun; daytime' |

### 5.2.165 swell

| word form(s) | category | gloss(es) |
|---|---|---|
| kebsʌm (GERUND) | VERB | 'grow, become larger' |

512

### 5.2.166 swim

| word form(s) | category | gloss(es) |
|---|---|---|
| ŋalam (GERUND) | VERB | 'swim; have plenty, multiply'[59] |

### 5.2.167 tail

| word form(s) | category | gloss(es) |
|---|---|---|
| zugo (SG.), zugfi (PL.) | NOUN | 'tail' |

### 5.2.168 that

| word form(s) | category | gloss(es) |
|---|---|---|
| hoŋ (HUM. SG.) | DET./DEICTIC | 'this/that (person)' |
| hoŋgo (LONG HUM. SG.) | DET./DEICTIC | 'this/that (person)' |
| bɛŋ (HUM. PL.) | DET./DEICTIC | 'these/those (people)' |
| bɛŋgɛ (LONG HUM. PL.) | DET./DEICTIC | 'these/those (people)' |
| koŋ (NON-HUM. SG.) | DET./DEICTIC | 'this/that (animal/thing)' |
| koŋgo (LONG NON-HUM. SG.) | DET./DEICTIC | 'this/that (animal/thing)' |
| hɛ̃ŋ (NON-HUM. PL.) | DET./DEICTIC | 'these/those (animals/things)' |
| hɛ̃ŋgɛ (LONG NON-HUM. PL.) | DET./DEICTIC | 'these/those (animals/things)' |
| kɛŋ (DIMIN. SG.) | DET./DEICTIC | 'this/that (small person/animal/ thing)' |
| kɛŋgɛ (LONG DIMIN. SG.) | DET./DEICTIC | 'this/that (small person/animal/ thing)' |

### 5.2.169 there

| word form(s) | category | gloss(es) |
|---|---|---|
| ze | ADV. | 'there, over there' |

### 5.2.170 they

| word form(s) | category | gloss(es) |
|---|---|---|
| ba (HUM. PL.) | PRO- & POSTCLIT. PRON. | 'they' |
| bakɔ (HUM. PL.) | FREE PRON. | 'they' |
| ɪ (NON-HUM. PL.) | PROCLIT. PRON. | 'they' |
| hɛ̃ (NON-HUM. PL.) | POSTCLIT. PRON. | 'they' |
| ɪkɔ (NON-HUM. PL.) | FREE PRON. | 'they' |

### 5.2.171 thick

There is no direct equivalent of 'thick'; the words given are the closest meanings that I could find.

| word form(s) | category | gloss(es) |
|---|---|---|
| kebre (SG.), kebiʌ (PL.) | NOM. ADJ. | 'big' |
| kebsʌm (GERUND)[24] | VERB | 'grow, be big' |
| nɔbam (GERUND) | VERB | 'grow' |

### 5.2.172 thin

There is no distinction between 'narrow' and 'thin'.

| word form(s) | category | gloss(es) |
|---|---|---|
| fɛlɔŋa (SG.), fɛlɔmɛ (PL.) | NOM. ADJ. | 'narrow, thin' |
| fɛlɔmaa | VERBAL ADJ. | 'be narrow, be thin' |

### 5.2.173 think

| word form(s) | category | gloss(es) |
|---|---|---|
| hamɔnam (GERUND) | VERB | 'believe, think' |

### 5.2.174 this

There is no distinction of distance in Koromfe equivalent to English 'this' and 'that'; therefore the same forms are used which were given in §5.2.168 above.

### 5.2.175 thou

| word form(s) | category | gloss(es) |
|---|---|---|
| N[60] | PROCLIT. PRON. | 'you (sg.), your (sg.)' |
| nɛ | POSTCLIT. PRON. | 'you (sg.)' |
| ŋkɔ | FREE PRON. | 'you (sg.), your (sg.)' |

### 5.2.176 three

| word form(s) | category | gloss(es) |
|---|---|---|
| ɪtãã | NUMERAL | 'three' (when counting) |
| tãã | NUMERAL ADJ. | 'three' (as a modifier) |

### 5.2.177 throw

| word form(s) | category | gloss(es) |
|---|---|---|
| dɔɔm (=/dʊ+am/) (GERUND) | VERB | 'throw' |
| hʊbtam (GERUND) | VERB | 'throw' |
| hʊkam (GERUND) | VERB | 'throw' |

### 5.2.178 tie

| word form(s) | category | gloss(es) |
|---|---|---|
| kʊram (GERUND) | VERB | 'tie, knot' |
| kʊrɔdam (GERUND) | VERB | 'tie, knot' |

### 5.2.179 tongue

| word form(s) | category | gloss(es) |
|---|---|---|
| dɪllaŋa (SG.), dɪllaʊ (PL.) | NOUN | 'tongue' |

### 5.2.180 tooth

| word form(s) | category | gloss(es) |
|---|---|---|
| jẽmmənɛ (SG.), jẽmmã (PL.) | NOUN | 'tooth' |
| sãɾɪa (SG.), sãɾsʊ (PL.) | NOUN | 'filed tooth' |

### 5.2.181 tree

| word form(s) | category | gloss(es) |
|---|---|---|
| fɛkʊ (SG.), fɛbɪ (PL.) | NOUN | 'tree, plant' |

### 5.2.182 turn

| word form(s) | category | gloss(es) |
|---|---|---|
| giletʌm (GERUND) | INTRANS. VERB | 'turn off, make a detour' |
| jilemʌm (GERUND) | INTRANS. VERB | 'turn, revolve' |
| kẽmam (GERUND) | TRANS. VERB | 'turn, wind; make a rope; grasp, embrace' |
| kɛmɛtam (GERUND) | INTRANS. VERB | 'turn round (180°)' |
| kɪmɛtam (GERUND) | INTRANS. VERB | 'turn one's head' |

| word form(s) | category | gloss(es) |
|---|---|---|
| viŋgʌm (GERUND) | TRANS. VERB | 'turn (a slingshot)' |
| wɛ̃nam (GERUND) | TRANS. VERB | 'wind, twist, plait, kneed' |
| wiletʌm (GERUND) | INTRANS. VERB | 'turn round, return' |

## 5.2.183 two

| word form(s) | category | gloss(es) |
|---|---|---|
| ɪhĩĩ | NUMERAL | 'two' (when counting) |
| hĩĩ | NUMERAL ADJ. | 'two' (as a modifier) |

## 5.2.184 vomit

| word form(s) | category | gloss(es) |
|---|---|---|
| tɔ̃jam (GERUND) | VERB | 'vomit' |
| wʊbsam (GERUND) | VERB | 'vomit' |

## 5.2.185 walk

| word form(s) | category | gloss(es) |
|---|---|---|
| jabəlam (GERUND), jaba (UNM.), jabəlɛ (PAST), jafaa (PROG.), jaf(ʊ) (DUR.) | VERB | 'walk, hike, march' |
| jabrɛ (SG.), jaba (PL.) | NOUN | 'walk, hike, march' |
| jagam (GERUND), ja/ jaʊ (UNM.), jagɛ/ jɛgɛ (PAST), jakaa (PROG.), jakʊ (DUR.) | VERB | 'go' |
| lɛbəlam (GERUND) (*all regular forms, plus 2 alternatives:* lɛfaa (PROG.), lɛf(ʊ) | VERB | 'walk (secretly following)' |

## 5.2.186 warm

| word form(s) | category | gloss(es) |
|---|---|---|
| homnʌʌ | VERBAL ADJ. | 'be warm, be hot' |
| homoi | NOUN | 'heat, warmth' |
| homsʌm (GERUND) | VERB | 'heat, be hot; hurry' |

### 5.2.187 wash

| word form(s) | category | gloss(es) |
|---|---|---|
| hubolʌm (GERUND) | VERB | 'wash (the body)' |
| hukʌm (GERUND) | VERB | 'bathe' |
| samam (GERUND) | VERB | 'wash (anything)' |
| sɔrɔmam (GERUND) | VERB | 'wash, rinse' |

### 5.2.188 water

| word form(s) | category | gloss(es) |
|---|---|---|
| hem (SG.) (*no plural*) | NOUN | 'water, liquid' |
| nɛŋam (GERUND) | VERB | 'water (an animal)' |

### 5.2.189 we

| word form(s) | category | gloss(es) |
|---|---|---|
| ʊ | PROCLIT. PRON. | 'we, our' |
| hɔ̃ | POSTCLIT. PRON. | 'us' |
| ʊkɔ | FREE PRON. | 'we, us, our' |

### 5.2.190 wet

| word form(s) | category | gloss(es) |
|---|---|---|
| wegʌm (GERUND) | VERB | 'wet, moisten'[61] |

### 5.2.191 what

| word form(s) | category | gloss(es) |
|---|---|---|
| ase[62] | INTERROG. PRON. | 'what' |

### 5.2.192 when

| word form(s) | category | gloss(es) |
|---|---|---|
| kɔ̃N[63] | CONJ. / NON-SPEC. REL. PRON. | 'when; who(m), which' |
| sefu | INTERROG. ADV. | 'when' |

### 5.2.193 where

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| nde | INTERROG. ADV. | 'where' |

### 5.2.194 white

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| pɔ̃nɔ̃ŋ (SG.), pɔ̃nĩã (PL.) | NOM. ADJ. | 'white, light (coloured)' |
| pɔ̃nəmɛ̃ɛ̃ (SG.) | NOUN | 'whiteness, lightness' |
| pʊsam (GERUND) | VERB | 'whiten, become white' |
| sɔmdɛ (SG.), sɔma/ sɔmaʊ (PL.) | NOUN | 'red; white person' |

### 5.2.195 who

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| ala (SG.), alama (PL.) | INTERROG. PRON. | 'who(m)' |
| ala (SG.), bɛnəma (PL.) | REL. PRON. | 'who(m)' |
| kɔ̃N[63] | CONJ. / NON-SPEC. REL. PRON. | 'when; who(m), which' |

### 5.2.196 wide

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| pɑ̃rəmʌʌ | VERBAL ADJ. | 'be wide' |
| pɑ̃rsʌm (GERUND) | VERB | 'widen, become wide' |

### 5.2.197 wife

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| kɛ̃ɔ̃ (SG.), kɛ̃na (PL.) | NOUN | 'female (human), woman, wife'[64] |

### 5.2.198 wind

| word form(s) | category | gloss(es) |
| --- | --- | --- |
| sarʊ (SG.), sarəfɪ (PL.) | NOUN | 'wind, air' |

### 5.2.199 wing

| word form(s) | category | gloss(es) |
|---|---|---|
| zoŋgre (SG.), zoŋgʌ (PL.) | NOUN | 'wing' |

### 5.2.200 wipe

There is no Koromfe word corresponding directly to 'wipe'. Some more distant equivalents are given in the following table.

| word form(s) | category | gloss(es) |
|---|---|---|
| danam (GERUND) | VERB | 'lick' |
| dugsʌm (GERUND) | VERB | 'rub, soap' |
| haraŋgam (GERUND) | VERB | 'stroke' |
| hasam (GERUND) | VERB | 'sweep' |

### 5.2.201 with

| word form(s) | category | gloss(es) |
|---|---|---|
| la | PREP. | 'with; and' |

### 5.2.202 woman

| word form(s) | category | gloss(es) |
|---|---|---|
| kɛ̃ɔ̃ (SG.), kɛ̃na (PL.) | NOUN | 'female (human), woman, wife'[64] |

### 5.2.203 woods

Woods and forests do not exist in the Koromfe area. The bush has occasional bushes and trees.

| word form(s) | category | gloss(es) |
|---|---|---|
| kãtɛ (SG.), kãra (PL.) | NOUN | 'woods, forest' |
| tuu (SG.), tuufi (PL.) | NOUN | 'bush' |
| tubre | ADVERB | 'in(to) the bush' |

### 5.2.204 worm

| word form(s) | category | gloss(es) |
|---|---|---|
| hõɪnɛ (SG.), hõjã (PL.) | NOUN | 'worm' |

## 5.2.205 ye

| word form(s) | category | gloss(es) |
|---|---|---|
| na | PRO- & POSTCLIT. PRON. | 'you (pl.), your (pl.)' |
| nakɔ | FREE PRON. | 'you (pl.), your (pl.)' |

## 5.2.206 year

| word form(s) | category | gloss(es) |
|---|---|---|
| dõĩ | ADV. | 'this year' |
| zende (SG.), zenʌ (PL.) | NOUN | 'year' |
| zĩĩ | ADV. | 'last year' |
| zĩnəmʌ̃ | ADV. | 'next year' |

## 5.3 Comparative Gur word-list

This section gives the Koromfe equivalents (where available) or relevant related forms for the comparative Gur word-lists of Manessy (1978: 112–118). For easier reference, both French and English glosses are given and the original numbering has been kept (i.e. 5.3.1 corresponds to Manessy's **1**, etc.). The order of presentation is articulatory (starting with bilabial) according to the roots postulated by Manessy. Those which approximately tally with Manessy's proto-forms have a tick (✓), those which clearly do not and for which there is no fitting correspondence at all in my corpus have a question mark (?). Special cases are marked with (!), and the forms that are not marked in any way are inconclusive.

### 5.3.1 construire / build (?)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| lebʌm (*regular*) | TRANS. VERB | 'construire' | 'build' |

This word is completely unlike any of the forms given by Manessy. There are no words in Koromfe with a similar meaning and a shape resembling *ma* etc.

### 5.3.2 blanc / white (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| pɔ̃nɔ̃ŋ, PL. pɔ̃nĩã | NOMINAL ADJ. | 'blanc' | 'white' |

### 5.3.3 excrément / excrement (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| bẽna (PL.) (*no* SG. *form*) | NOUN | 'excrément' | 'excrement, faeces' |

### 5.3.4 chien / dog (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| vaga, PL. vaɪ | NOUN | 'chien' | 'dog' |

This is one of only a handful of words which contain phonetic [v] in Koromfe — see §3.1.2.1.2 above. The corresponding word in Mòoré has initial [b], so this looks like an old native Koromfe word.

### 5.3.5 nouveau / new (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| feleŋ (SG.), feleŋʌ (DIMIN.), felēʌ̃ / felejʌ̃ (PL.) | NOMINAL ADJ. | 'nouveau, neuf' | 'new' |

### 5.3.6 respirer / breathe (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| fʊsam (*reg.*) | VERB | 'bouger, respirer, souffler' | 'move, breathe, blow' |

### 5.3.7 scorpion / scorpion (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| nɔ̃məŋa, PL. nɔ̃mənɛ | NOUN | 'scorpion' | 'scorpion' |

### 5.3.8 arc / bow (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| tɔ, PL. tɔfɪ | NOUN | 'arc' | 'bow' |

The regular correspondence of the *-bo* singular noun class found in other Gur languages (e.g. Mòoré) is *ʊ* in Koromfe, e.g. Mòoré *dɪɪbo* 'food, eating' vs. Koromfe *dɪʊ*.

### 5.3.9 genou / knee (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| dumməne, PL. dummʌ | NOUN | 'genou' | 'knee' |

### 5.3.10 sale / dirty (!)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| zɪgam (SG.) | NOUN | 'saleté' | 'dirt' |

The word *zɪgam* is clearly related to the similar forms given by Manessy with an initial *d*. There is no word in Koromfe with an initial *d* which means anything like 'dirt'.

### 5.3.11 voir / see (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| ni / na / nãã (UNM.) (*no other forms*) | VERB | 'voir, trouver, savoir' | 'see, find, know' |

### 5.3.12 pois / pea (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| nɛbrɛ, PL. nɛba | NOUN | 'pois' | 'pea' |

The stem *sum* given by Manessy exists in *sɔ̃ŋkaamdɛ / sõŋkaamdɛ* 'peanut', a Mòoré loan whose second morpheme means 'fat, grease, oil'.

### 5.3.13 boire / drink (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| ɟɔ̃ɔ̃m (*regular*) (stem=/ɟɔ̃/) | VERB | 'boire, absorber, fumer' | 'drink, absorb, smoke' |

### 5.3.14 soumbala (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| dɪsɔga (SG.) | COMPOUND NOUN[65] | 'soumbala' | ? |
| sɔga (SG.) | NOUN | 'pâte d'oseille' | 'sorrel paste' |

My informants think that the normal term for 'soumbala' *dɪsɔga* is a compound of *dɪ* 'eat' and *sɔga* 'pâte d'oseille'. Since no verb+noun compounds exist in Koromfe, this may be an N+N compound with the noun *dɪʊ* as its first member.

### 5.3.15 s'asseoir / sit (?)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| tukʌm (GERUND) (*irreg.*) | VERB | 's'asseoir, être assis, exister, vivre, habiter' | 'sit, exist, live' |

This word does not fit Manessy's pattern at all; there is no other Koromfe expression for 'sit'.

### 5.3.16 nom / name

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| seɡre (SG.), seɡiʌ (PL.) | NOUN | 'prénom' | '(first) name' |
| seɡtʌ (SG.) seɡtʌfi (PL.) | NOUN | 'nom de famille' | 'family name' |
| jɪram (*regular*) | VERB | 'appeler' | 'call' |
| jorʌm (*regular except* PAST jorǝbe) | VERB | 'répondre (à son nom)' | 'answer (when called)' |

Although there is no word meaning 'name' that corresponds to Manessy's root *jɪr*, this root is clearly present in the verb 'call', and also seems to be related to the root in the word 'answer (when called)'.

### 5.3.17 visage / face (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| jɪka, PL. jɪɡnɛ | NOUN | 'visage' | 'face' |

### 5.3.18 abeille / bee

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| tɔ̃ɛ̃fɛ (SINGULAT.), tɔ̃ɛ̃ (COLL., PL.) | NOUN | 'abeille' | 'bee' |

It is doubtful whether this word is related to the root *ci / si* given by Manessy; the initial consonant would have a strange reflex in Koromfe and in all other languages cited by Manessy the stem vowel is front, not back. The same applies to the next word 'honey'.

### 5.3.19 miel / honey

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| tɔ̃ɛ̃ (SG.) | NOUN | 'miel' | 'honey' |

Phonetically there is no difference between the word 'honey' and the plural of the word 'bee' given immediately above in §5.3.18.

### 5.3.20 couteau / knife (?)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| gabrɛ, PL. gaba | NOUN | 'couteau' | 'knife' |

Although there are several Koromfe words with phonetic similarities to Manessy's root for knife, none of them have even the remotest semantic resemblance.

### 5.3.21 farine / flour

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| varam (SG.) | NOUN | 'farine' (terme générique) | 'flour' (generic term) |
| jomu (SG.) | NOUN | 'fourrage, herbe' | 'fodder, grass' |

Both the generic word for flour (given above) and the words for special types of flour bear no resemblance to the root *jom / com / zom* given by Manessy; however, at a slight stretch of the imagination, the word 'fodder' might be considered to be a non-human version of flour (i.e. the staple diet of domestic animals rather than human beings).

### 5.3.22 nombril / navel (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| hɔndəga, PL. hɔndənɪ | NOUN | 'nombril' | 'navel' |

The word *hɔndrɛ*, PL. *hɔnda* given for Koromfe by Manessy normally means a kind of hoe. However, it would seem to be the word from which the diminutive form 'navel' given above is derived.

### 5.3.23 hippopotame / hippopotamus

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| jemdi | jemʌ | 'hippopotame' | 'hippopotamus' |

The final vowel *i* of the singular suffix *di* (instead of native Koromfe *dɛ*) indicates that this word must be a loan from Mòoré and not a native Koromfe word. There is no other word for 'hippopotamus' in Koromfe.

### 5.3.24 tuer / kill (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| kɔɔm (*regular*) (stem=/kʊ/) | VERB | 'tuer' | 'kill' |

### 5.3.25 faire / do

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| bakam (*regular*) | VERB | 'faire' | 'do, make' |
| tɪgam (*regular, also* UNM. tɪ) | VERB | 'mettre, faire' | 'put, do, make' |
| kɛndam (*regular*) | VERB | 'finir' | 'finish' |

Koromfe has two normal verbs for 'do, make' which do not resemble the *k*-initial root given by Manessy. However, the verb 'finish' looks quite similar.

### 5.3.26 os / bone (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| kʊbrɛ, PL. kʊba | NOUN | 'os' | 'bone' |

### 5.3.27 courber / bend

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| tullʌm (*regular*) | VERB (TRANS. & INTRANS.) | '(se) baisser, (se) courber, (s')incliner' | 'lower, bend, lean' |
| zullʌm (*regular*) | VERB (TRANS. & INTRANS.) | '(se) baisser, (se) courber, (s')incliner' | 'lower, bend, lean' |
| gɔɔm (*regular*) (stem=/gɔ/) | VERB | 'se retourner; faire encore' | 'turn round; do again' |

Neither of the normal words for 'bend' corresponds to Manessy's root *go(r)*, but the verb stem *gɔ* fits very well, and might be considered to be a figurative use of the notion of 'bend'.

### 5.3.28 étoile / star (?)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| jɔ̃nəfɛ (SINGULAT.), jɔ̃nɛ (COLL., PL.) | NOUN | 'étoile; fourmi' | 'star; ant' |

The word *warfe* given by Manessy for Koromfe was unknown to my informants.

### 5.3.29 froid / cold (✓)

| word form(s) | category | French gloss(es) | English gloss(es) |
|---|---|---|---|
| wu (SG.) (*no plural*) | NOUN (*quality, not nominal* ADJ.) | 'froid' | 'cold' |

527

# Notes to Chapter 5

1    Abbreviations used in formulae in the kinship terminology tables (alphabetically):

| term | meaning | term | meaning |
|------|---------|------|---------|
| Br | brother | Si | sister |
| Ch | child | So | son |
| Da | daughter | Wi | wife |
| Fa | father | ⁻ | younger than (e.g. Ego⁻ 'younger than ego') |
| Hu | husband | ⁺ | older than (e.g. Ego⁺ 'older than ego') |
| Mo | mother | ≠ | is not (e.g. ≠Mo 'is not mother of (ego)' |

The complex kinship formulae should be read in the usual way — either from left to right with ⟨'s⟩ between, or right to left with 'of' between the individual terms, e.g. FaSiSo 'father's sister's son' or 'son of the sister of the father'. Material in parentheses at the right of a formula are attributes of the rightmost term, e.g. FaSo(Ego⁺,Ch) 'father's son who is older than ego and still a child'.

2    The *υ* in parentheses in the plural forms is an optional pre-pausal realization of these words.

3    My informants were unhappy about extending the term *bana* to include anyone else (such as MoBrWiBr or FaWiBr). It seems that MoBr is a very special relative.

4    Some of these terms also allow pluralization of the first noun, if the result is semantically/pragmatically plausible.

5    The *bʌndʌ* part of this compound does not exist elsewhere. My informant Kemde was convinced that this is just a contortion of *bana*, and therefore a semantically regular compound equivalent to non-existent *\*bana bi*. Note that if Kemde is right, this another case of unexpected assimilation of ATR from right to left like the nasalization of *r* to *n* described in footnote 6. However, the addition of a *d* in *bʌndʌ* is idiosyncratic.

6    The variants *baniã* and *baniãmmã* of *barə jã* and *barə jãmmã* 'mother-in-law (of a woman)' seem to involve a simple phonological assimilation of the *r* (/d/) of *barə* to the following nasal approximant *j*. However, there also exists the word *bana* 'maternal uncle', which could be a source of interference, even though it cannot be the source of this *baniã* variant.

7    There also exists a singular abstract noun *nee* 'in-law-ness', which can be used concretely to denote all blood relatives of the spouse.

8    It is impossible to say whether the nominal adjectives or the verbs express the 'basic' form of the morphemes denoting the three basic colours. Note that the quality of the (first) stem vowel differs slightly for each noun-verb pair.

9    This usage probably reflects the fact that the skin of most 'white people' ever seen by the Koromba is reddened from the sun.

10   Unfortunately I was not in a position to see these plants etc. in the presence of an informant, and so the information given on them is nothing more than a report on

my informants' judgements of colour correspondences with the equivalent French terms.

[11]  I do not know what *néré* is, but its Koromfe name is *do*. The word *varam* is the general word for 'flour' of any kind, and is used here only optionally.

[12]  The categorization of 'basic' vs. 'further' meanings is purely subjective, based on the intuitions of my informants, and is only intended as a general guideline.

[13]  This word must be related to *bēna* 'excrement', despite phonological differences in nasality and the length of *n*.

[14]  Strictly speaking, 'voice' is not a body part. However, in view of the extended meanings 'sound' and 'command', this seems to be the basic meaning than the body part 'throat'.

[15]  The word *kote*, PL. *korʌ* can only be used as the second member of a complex (NP+N) NP with *jɪbrɛ*, PL. *jɪba* 'eye' as the first member. Compare also the compound term *jɪbrɛ bīnĩŋ* in (908) below.

[16]  One informant, Souleymane, also used a singular form *kʊlfɛ*, with a singulative suffix.

[17]  The word *pogo* is the generic word for 'shell', and is widely used in compounds. It is only in the compounds (with the words 'hand' and 'foot') that it is used to denote a body part.

[18]  The word *sēbtrɛ*, PL. *sēbta* occurs only as the second part of an N+N compound noun with *wɔ̃n*, the stem of *wɔ̃ndɛ*, PL. *wãna* 'hand' or with *wol* from *wolle*, PL. *wala* 'foot' . The meaning 'fist' is slightly puzzling: *sēbtrɛ* must be derived from the verb *sēbtam* 'split', and so we would expect the mean 'wrist' here (i.e. the place where the hand is 'split' from the arm), parallel to 'ankle' (the place where the foot is split from the leg).

[19]  My informants report that this irregular singulative form of *wɔ̃ndɛ*, PL. *wãna* 'hand' can be used freely instead of *wɔ̃nə bi* 'finger'. In spontaneous speech, however, they themselves always used *wɔ̃nə bi*.

[20]  This is the verb from which the noun *filləŋʌ* 'kind of forked stick' is derived. This forked stick is used like a whisk to avoid or get rid of lumps in sauce and thin porridge. The actual verb for 'whisk' alone (without necessarily cooking) is *firedʌm*, given in this table. The forked stick is held vertically between the palms with the forked end in the sauce (etc.) and rolled back and forth to make the forked end rotate.

[21]  The inflectional forms of *horʌm* are regular (i.e. *horu* (UNM.), *hotu* (DUR.), *hotʌʌ* (PROG.) except for the PAST, which is *horəbe* instead of expected *hore*. The form *hore* exists as the past tense of the (also irregular) verb 'lie down': *hoigu* (ACTION NOUN), *hori* (UNM.), *hore* (PAST), *hoifu* (DUR.), *hoifʌʌ* (PROG.).

[22]  The initial consonant of the word *kãŋ*, PL. *hãʊ̃ma* is totally idiosyncratic and irregular — cf. §2.1.1.9.1 above.

[23]  For some reason no plural of this word is recorded in my corpus; the (probable) compound *kɪ ʒamdɛ* 'ugly' has the plural *kɪ ʒama*.

[24]  The UNMARKED forms of the verbs given here, i.e. *kebsu* and *nɔbʊ*, can be used participially as post-nominal indeclinable adjectives with the meaning 'big'.

[25]  This word means the noun 'cold' (i.e. 'coldness') and cannot be used as a nominal adjective.

26  Apart from its alternative (and more usual) shortened UNMARKED form, this verb is regular.

27  Plurals with the suffix *-fi* can be formed from any singular noun form, and should therefore be treated with caution. There do exist words with a 'real, original' *-fi* plural noun-class suffix, but these usually have a corresponding *-ʋ* singular.

28  The *hɛ̃ã* variant of *hɛ̃ɛ̃* occurs only in extremely careful speech.

29  See (900) in §5.1.1.1 above for further extensions of this word.

30  The meanings 'have plenty, multiply' are due to accidental homophony.

31  The kind of 'fog' which exists in the Koromba area consists of wind-borne sand which obscures vision; 'fog' consisting of particles of water does not exist.

32  Temperatures below freezing point are virtually unknown (at least in practice) to the Koromba; only the word 'hail' exists.

33  The word *wɔ̃ɛ̃fɛ* 'blade of grass' is used to denote 'snake' in order to avoid bad luck by mentioning the snake's true name *doŋfe*, PL. *domi*. This choice of euphemism stems from the long, thin shape shared by both.

34  The verb *dollotʌm* is the reversive of *dollʌm* 'put', and therefore it primarily denotes the undoing of a (previous) placing of something.

35  The word *nãŋkãã* is probably a compound whose first part is the deictic stem *naŋ* and whose second part is a shortened form of the word *kãnã* given here; however, it is the more frequently used term.

36  Since I have never experienced it in Africa, I am not sure whether this word really denotes 'hail' in the proper sense, or whether (like the French word *brouillard* for 'fog') it has been taken over to denote some other form of precipitation.

37  This word is probably a petrified and phonologically eroded version of *ba jãã*, i.e. the negative particle *ba* and the verb *jãã* given in this table.

38  The word *taʋ* means 'river' only when it is slow-moving; for moving bodies of water *gote*, PL. *gorʌ / gorʌu* 'stream, river' is used.

39  This word is a Mòoré loan; my informants knew no native Koromfe equivalent.

40  The word *fei* is probably a participially used UNMARKED form of the verb *felei* given in this table. However, it is not used as a verb form — probably because the basic meaning of this verb, 'live', is viewed as a continuous action which is compatible only with aspects expressed by the DURATIVE and PROGRESSIVE inflection.

41  The words *kesem*, *pɔtʋ* and *wasɪ* cannot be used attibutively, but only as complements. Only *kesem* can be used as an adverb.

42  See (900) in §5.1.1.1 above for further extensions of this word.

43  The DIMINUTIVE SINGULAR form of this word, *jãŋa* 'young female (animal)' does not imply motherhood; on the contrary it implies sexual immaturity.

44  The UNMARKED form of this verb, *woroŋgu* is used as a participial adjective meaning 'nearby'.

45  The morpheme *aa* is found especially in combination with the proclitic subject pronouns, e.g. *maa* 'I...not' from *mə* 'I'. However, in some of my texts *aa* occurs between a full NP subject and the verb; but my informants rejected any such forms and found the usage strange.

46  Here the abstract noun 'old age' is used as a plural, as in German *Jugend* 'youth' for *Jugendliche* 'young people'.

47  This verb has the meaning 'rain' only when the subject is something that can rain (i.e. normally the noun *veŋa* 'rain').

48    The UNMARKED form of this verb, *magtɪ* is used as a participial adjective meaning 'correct, appropriate'.

49    This noun is used with the verb 'have', like the corresponding French (*tu as raison*) or German (*du hast Recht*) constructions: *n wɔf a zemgʊ* 'you are right'.

50    A 'road' in Koromba country is what we might call a 'track'. A constructed road for automobiles is *a bɔrʊ kɔsʊ* 'a constructed road' (the last word being the UNMARKED form of *kɔsam* 'scrape, construct'.

51    The UNMARKED form of these verbs, *jos(u)* and *wɔŋg(u)* are used as participial adjectives meaning 'rotten'.

52    The two separate verbs *naam* and *niilei* given here may be one and the same verb; however, if that is so, then the change of ATR harmony class is unique.

53    There is no general word corresponding to 'seed'. Apart from the words given here, there exists an expression *kaŋ fɛtǝgʊ* 'thing that can be cultivated', from *kaŋ* PL. *hãũma* 'thing' and the instrumental noun *fɛtǝgʊ*, PL. *fɛtǝhɛ̃* from the verb *fɛram* (GERUND) 'cultivate'.

54    Instead of the short vowel in *dɛm* we would expect a long vowel if this word were formed with the regular GERUND suffix *-am*. Note, however, that such a form would be homophonous with *dɛɛm* (GERUND) 'eat, consume, enjoy'. The suffix of *dɛm* might be the noun-class suffix *-m* of the singular class of uncountables (especially liquids).

55    When used in the sense of 'smoke', the verb *jɔɔm* requires an object (at least an understood one) that can be smoked.

56    The UNMARKED form of this verb, *pɪl(ɪ)* can be used as participial adjectives meaning 'flat, smooth', e.g. for the ground.

57    This word is probably a compound of *nɛ̃nɛ*, PL. *nɛ̃jã* 'mouth' and *tɔm* 'ashes, dust, earth', although it puzzles me why the second part designates something dry rather than wet. The variant *nɛntɔm*, with a second *n*, has the noun-class suffix of *nɛ̃nɛ*, the variant *netɔm* has only the stem.

58    I have been unable to ascertain whether 'star' and 'ant' are accidentally homophonous, or whether some kind of analogy is at work. Note that both belong to the singulative/collective noun class.

59    The meanings 'have plenty, multiply' are due to accidental homophony.

60    The capital *N* in **this** word represents a syllabic nasal consonant which is homorganic with the following consonant and shares its manner of articulation. For examples of its many phonetic realizations, see §3.1.2.2.2.1 above. Note that its allophones are not coextensive with those of *kɔN*, described in footnote 63.

61    The UNMARKED form of this verb, *weg(i))* can be used as participial adjectives meaning 'wet'.

62    Morphologically, this word probably consists of the article *a* plus *se*, since otherwise it would be disharmonic. Compare also *ala* 'who'.

63    The capital *N* **here** represents a syllabic nasal consonant which is homorganic with the following consonant. If the following consonant is nasal, this *N* is phonetically [n] or [nɔ]. Note that its allophones are not coextensive with those of the pronoun *N*, described in footnote 60.

64    The word *kɛ̃ɔ*, though normally used in the sense of 'woman', especially when not compounded, does not imply sexual maturity. In kinship terminology it is used (like the corresponding male term *bɔrɔ*) to designate female terms of any age. The

simplex word for 'girl', *bikeŋʌ*, PL. bikeni, never seems to occur in kinship com-
pounds.

65  My informant analysed this word as *dɪ* 'eat' (UNM.) + *sɔga* 'sorrel paste'.

# Bibliography

Alexandre, G. (1953). La langue more. Mémoires de l'IFAN 34. Dakar.

Canu, Gaston (1976). La langue mò:ré. Dialecte de Ouagadougou (Haute Volta). Description synchronique. Paris: SELAF. (=Langues et civilisations à tradition orale 16).

Dressler, Wolfgang U., Martin Prinzhorn & John R. Rennison, eds. (1995). *Phonologica 1992*. Torino: Rosenberg & Sellier.

Grimes, Barbara F., ed. (1992). Ethnologue: Languages of the world. Twelfth edition. Dallas (?): Summer Institute of Linguistics. (http://www.sil.org/ethnologue/ethnologue.html).

Harris, John (1990): Segmental complexity and phonological government. *Phonology* 7: 255–300.

Harris, John (1994). *English Sound Structure*. Oxford: Blackwell.

Kabore, Raphaël (1980). Essai d'analyse de la langue mõõré (parler de Wàogdgò =Ouagadougou). Ph.D. dissertation, Paris VII.

Kaye, Jonathan D. (1990). Coda licensing. *Phonology* 7: 301–330.

Kaye, Jonathan D. (1992). Do you believe in magic? The story of $s+C$ sequences. *SOAS Working Papers in Linguistics and Phonetics* 2: 293–313.

Kaye, Jonathan D., Jean Lowenstamm & Jean-Roger Vergnaud (1985). The internal structure of phonological elements: a theory of charm and government. *Phonology Yearbook* 2: 303–328.

Manessy, Gabriel (1969). *Les langues gurunsi. Essai d'application de la méthode comparative à un groupe de langues voltaïques*. I & II. Paris: SELAF. (=Bibliothèque de la SELAF 12 & 13).

Manessy, Gabriel (1978). Le kirma, le tyurama et les langues voltaïques centrales. Afrika und Übersee LXI.2, 82–119.

Nikiema, Norbert (1980a). *èd góm mooré* [Let's speak Mòoré]. Département de Linguistique, ESLSH, Université de Ouagadougou.

Nikiema, Norbert ([1980b]). *Moor gulsg sebre. Manuel de transcription du mooré*. Département de Linguistique, ESLSH, Université de Ouagadougou.

Peterson, T. (1971). *Moore structure: a generative analysis of the tonal system and aspects of syntax*. Ph.D. dissertation, U.C.L.A.

Prost, R.P. André (1980). *La langue des KOUROUMBA ou akurumfe*. Wien: Schendl.

Rennison, John R. (1981). *Bidialektale Phonologie. Die Kompetenz zweier Salzburger Sprecher*. Wiesbaden: Steiner. (= Zeitschrift für Dialektologie und Linguistik, Beihefte, N.F. 34).

Rennison, John R. (1985). The morphophonology of three Koromfe noun classes. In: Rennison, John R., ed. *Phonologica Africana 1984. Papers from the "Workshop on African Languages" at the Fifth International Phonology Meeting, Eisenstadt, 25–28th June 1984*. wiener linguistische gazette, supplement 5.

Rennison, John R. (1986a). *Dictionnaire koromfe (Dialecte de Mengao), koromfe-français, français-koromfe, utilisant aussi du matériel non-publié de Wilhelm Staude*. Hamburg: Buske.

Rennison, John R. (1986b). *Textes koromfe. Collectés par Wilhelm Staude.* Hamburg: Buske.

Rennison, John R. (1986c). On the semantic content of noun classes. *Incontri Linguistici* 11, 95–113.

Rennison, John R. (1987a). On the Vowel Harmonies of Koromfe (Burkina Faso, West Africa). In: Dressler et al. (1987), 239–246.

Rennison, John R. (1987b). Vowel harmony and tridirectional vowel features. *Folia Linguistica* XXI, 337–354.

Rennison, John R. (1987c). *Tridirectional autosegmental phonology and the PC.* Habilitationsschrift, University of Vienna.

Rennison, John R. (1989). Wo steht die Morphonologie heute? In: M. Prinzhorn, ed. *Generative Phonologie.* Opladen: Westdeutscher Verlag. 138–163. (=Linguistische Berichte, Sonderheft 2/1989).

Rennison, John R. (1990). On the elements of phonological representations: the evidence from vowel systems and vowel processes. *Folia Linguistica* XXIV/3–4, 175–244.

Rennison, John R. (1992). Welche Vokale hatte das Proto-Gur? Überlegungen anhand der Vokalharmonie und Vokalassimilation im Koromfe und Mòoré. In: E. Ebermann, E.R. Sommerauer & K.É. Thomanek, eds. *Komparative Afrikanistik. Sprach-, geschichts- und literaturwissenschaftliche Aufsätze zu Ehren von Hans G. Mukarovsky anläßlich seines 70. Geburtstags.* Wien: Institut für Afrikanistik.

Rennison, John R. (1993). Empty Nuclei in Koromfe: A first look. *Linguistique Africaine* 11, 35–65.

Rennison, John R. (1995). Syllables, variable vowels, and empty categories. In: Dressler et al. (1995).

Schweeger-Hefel, Annemarie & Hans G. Mukarovsky. 1961. 'Notes préliminaires sur la langue des Kurumba (Haute-Volta)'. *Archiv für Völkerkunde* XVI, 177–97.

Schweeger-Hefel, Annemarie & Wilhelm Staude. 1972. *Die Kurumba von Lurum. Monographie eines Volkes aus Obervolta (Westafrika).* Wien: Schendl.

# Index

This index also contains entries for items whose **absence** in Koromfe is discussed on the pages given.