

ASPECTS OF A GRAMMAR OF MAKARY KOTOKO (Chadic, Cameroon)

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Aspects of a Grammar of Makary Kotoko (Chadic, Cameroon)

Dissertation directed by Professor Zygmunt Frajzyngier

Makary Kotoko, a Central Chadic B language, is spoken in the north of Cameroon just south of Lake Chad. It is one of nine Kotoko languages. Published works on Makary Kotoko to date include about a dozen articles on different aspects of the grammar of the language. The present work, which is based primarily on a substantial corpus of recorded texts, is a systematic description of many aspects of the phonology, morphology, and syntax of the language.

Makary Kotoko has six vowels and twenty seven consonants, including a series of implosives, a series of ejectives, and a series of prenasalized stops. The tone system (including a high, low, mid, and falling tone) functions both lexically and grammatically, though the functional load of tone is not heavy.

Nominal morphology is limited, coding plurality, a diminutive, and three nominalization processes. The language has lexicalized a basic ontological distinction between concrete things and abstract things. Verbal morphology is also limited, coding plurality, an applicative, and a causative. The language codes aspectual/modal distinctions on the subject marker which precedes the verb. Tense is not coded in the language, but spatial orientation is coded through a small number of locative particles.

The relative order of the direct object and the expression of location within the clause is affected by the nominal/pronominal realization of the arguments.

There are four primary non-verbal predication constructions used to express notions of identity, attribution, possession, location, and existence.

Makary Kotoko places noun phrases in pre-subject position, followed by a small number of markers, to code pragmatic information for the clause (i.e., topic, contrastive focus, switch reference). The presence or absence of a resumptive pronoun for noun phrases placed in pre-subject position (and for head nouns of relative clauses) is conditioned by a complex of factors, including verb argument structure, the grammatical function of the noun phrase, the human/non-human nature of the referent of the noun phrase, and the ongoing saliency of the referent of the noun phrase within the discourse.

Combining clauses is done through various means, including the use of two sequential markers which code (in different domains) the succession of events in the discourse.

To Lezlie, my precious wife,

and our four wonderful kids, Josiah, Nate, Drew, and Annie.

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In memory of Mark Obisike Ojunta,

martyred Aug. 27, 2011,

fellow friend of the Kotoko, and spiritual brother.

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Abbreviations

Abbreviation	Meaning
1	First person
2	Second person
3	Third person
A	most-agent like argument of transitive clause
ABSTR	Abstract
ADVERS	Adversative
APPL	Applicative
CAUS	Causative suffix
CC	Copula complement
CMPL	Completive aspect
COMP	Complementizer
CONC	Concrete
CONJ	Sequential and non-sequential markers
CONTR	Contrastive focus
CS	Copula subject
DEM	Demonstrative
DET	Definite determiner
DISJ	Disjunction
DIST	Distal (demonstrative)
DO	Direct object
EXCL	Exclusive
F	Feminine
FOC	Focus marker
IDEO	Ideophone
IMP	Imperative
INCL	Inclusive
IND	Independent pronoun
INF	Infinitive
INTENS	Intensifier
INTERJ	Interjection
IO	Indirect object
INCMPL	Incompletive aspect
IRR	Irrealis mode

Abbreviation	Meaning
LINK	Linking element
LOC	location
L.P.	Locative particle
M	Masculine
MMR	Means-Manner-Reason marker
MOD	Non noun modification marker
NEG	Negative
NEUT	Neutral aspect
NMOD	Noun modification marker
NOM	Nominalizer
NONSPEC	Non-specific
O	most patient-like argument of transitive clause
PL	Plural; Pluractional
POL	Polar question
POSS	Possessive
PREP	Preposition
PRES	Presentational copula
PRO	Non-human/locative pronoun
PROH	Prohibitive mode
RECIP	Reciprocal
REFL	Reflexive
S	only argument of intransitive clause
SG	Singular
s.o.	someone
(SP)	species
S.R.	Switch reference marker
sth	something
TAG	Tag question
usu.	usually
VCC	Verbless clause complement
VCS	Verbless clause subject
VOL	Volitive mode

1 Introduction

Makary Kotoko, a Central Chadic language spoken in the northern tip of Cameroon, just south of Lake Chad, has a conservative estimate of 16 000 speakers, distributed among the various villages in the Makary Kotoko language area (e.g. Makary, Dougoumsilio, Maladi, Woulki, Ngouma, Biamo, Bodo, Belguede, Blangape, etc. (cf. Figure 1.3)).¹



Figure 1.1 Map of Africa

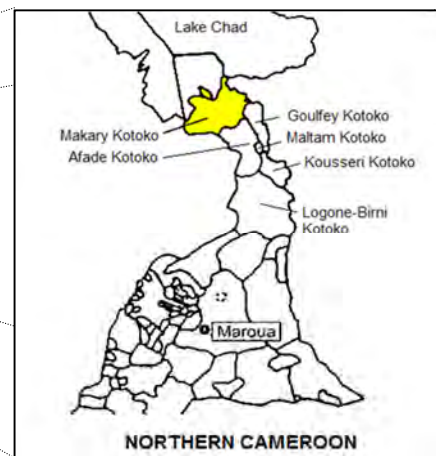


Figure 1.2 Map of northern Cameroon

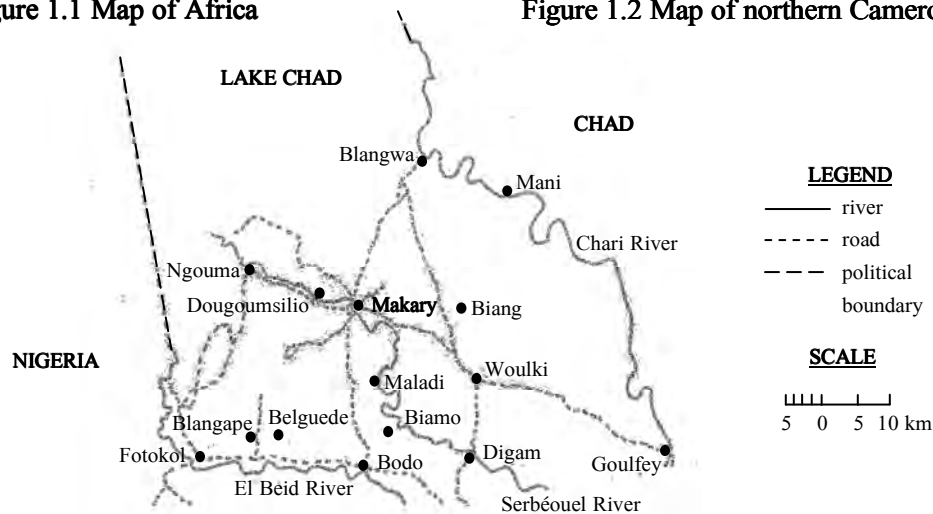


Figure 1.3 Map of Makary Kotoko language area

¹ This estimate is given by Henry Tourneux (http://llacan.vjf.cnrs.fr/sec_lng.htm#KOTOKO, last accessed Oct 11, 2011). My opinion is that Tourneux's population estimates for the Kotoko languages are proportionately accurate, but that the actual figures are somewhat conservative, not taking into account the significant diaspora of speakers in other parts of the country (and neighboring countries).

Makary Kotoko villages are commonly situated on the rivers that flow into Lake Chad since, traditionally, the primary occupation of the Kotoko people is fishing and farming. The language borders of the Makary Kotoko area overflow political boundaries on both sides, and there are speakers of Makary Kotoko in Nigeria to the west (e.g. Gambarou, Woumbi, Maiduguri) and Chad to the east (e.g. Mani, N'Djamena). As well, there are a number of Makary Kotoko speakers in many of the major cities of Cameroon (e.g. Kousseri, Maroua, Garoua, Ngaoundere, Yaounde, Douala). The large majority of Makary Kotoko (and Kotoko in general) are Muslim. The name for 'village' and for 'language' in Makary Kotoko is one and the same: *wɔ*. As such Makary Kotoko speakers, when asked, will give the name of their village as the language they speak. For instance, the auto-denomination for the town of Makary is *mpadə*. If asked, Makary Kotoko speakers living in Makary will say the language they speak is *mpadə*. The auto-denomination for the town of Dougoumsilio is *dəgəmsəlio*. Makary Kotoko speakers living in Dougoumsilio will say the language they speak is *dəgəmsəlio*. In the linguistic sense, they speak the same language. That is, there is mutual intelligibility between them. The term Makary Kotoko then is the cover term used to refer to all speech varieties which are mutually intelligible with the variety spoken in the town of Makary. Makary is largest town in the Makary Kotoko area, with a rough estimate of 2-3000 inhabitants, though a number of these are not Makary Kotoko speakers as this is where the government offices that serve the outlying areas are based (e.g. mayor's office, sub-prefect's office, police station, 'gendarme' post, prison, post office, public education offices, agricultural offices, etc.).

There are variations in speech from one Makary Kotoko village to another though these are generally minor. One exception is the speech variety of the town of Bodo. In that variety, the sequences /gw, kw, ngw, k'w/ of Makary Kotoko correspond with a series of labio-velars: /gb, kp, nmgb, gb/, respectively. Also, the voiceless lamino-palatal fricative /ʃ/ of Makary Kotoko corresponds with a voiceless lamino-palatal affricate /tʃ/ in the Bodo dialect for non-borrowed terms. I have not included a discussion of the Bodo dialect in this grammatical description.

The Makary Kotoko people are a minority within their own language area as there are a large number of Shoa Arabs that live in the area (cf. Tourneux 2000a:112). Shoa Arabic is the lingua franca of the area, being used in the market context. There are also smaller numbers of Kanuri and Hausa speakers living in the Makary Kotoko language area. French is in use in all official capacities.

1.1 Linguistic classification

Makary Kotoko is one of nine Kotoko languages, which form the Kotoko group of the Central Chadic B branch (also called the Biu-Mandara B branch) of the Afro-Asiatic family. These are all mutually unintelligible. Tourneux (2000a:113, slightly modified here) groups them as follows:

Grouping	Language name	Auto-denomination
1. <i>Island</i>	Buduma	yedəna
2. <i>Northern</i>	Makary Kotoko	mpadə
	Goulfey Kotoko	malgbe
	Afade Kotoko	afadə
	Maltam Kotoko	maɫam
3. <i>Central</i>	Kousseri Kotoko	msər
	Logone-Birni Kotoko	lagwan
4. <i>Southern</i>	Mazera Kotoko	maʒera

Grouping	Language name	Auto-denomination
	Zina Kotoko	zina

Table 1.1 Subgroupings within Kotoko group

1.2 Borrowings

Makary Kotoko's lexicon has been heavily influenced by both Kanuri (Ka.), a Nilo-Saharan language, and Shoa Arabic (S.A.). In a database containing a little over 3000 distinct lexical entries, I have identified 916 borrowings. That is, a little less than one third of the lexicon is borrowed. Of these, 401 have a Classical Arabic (C.A.) source. 133 of those with a C.A. source show evidence of having been borrowed through Kanuri. In addition, another 379 borrowed items (with no apparent C.A. source) have been borrowed from Kanuri. Borrowings from Kanuri (512 in total) account for more than half the known borrowings in the language, and for about one sixth of the items in the Makary Kotoko lexical database. Other borrowings come from Shoa Arabic, Hausa, Fulfulde, Bagirmi, French and English. The table below summarizes the distribution of the borrowings relative to the posited source language for each borrowing.²

Language	Number of borrowings
Kanuri	379
Classical Arabic (total)	401
C.A. (probably via Ka.)	133
C.A. (probably via S.A.)	171
C.A. (possibly via Ka. or S.A. or another source)	89
C.A. (probably via another source)	8
Shoa Arabic	6

² Lexical and historical information for the languages from which Makary Kotoko has borrowed terms come from the following sources: Abraham & Kano (1949), Baldi (1995, 1999), Bouny & Jouannet (1978), Braukämper (1993), Cyffer & Hutchison (1990), Cyffer (1994), Greenberg (1947), Greenberg (1960), Hutchison (1981), Jullien de Pommerol (1999), Kammler-Stennes (1988), Koelle (1854, 1970), Lukas (1936b, 1937), Newman (2000a), Prost (1985), Von Oppenheim (2001), Zeltner (1977, 1980, 1988, 1997), Zeltner & Tourneux (1986).

Language	Number of borrowings
Hausa	37
Fulfulde	10
Bagirmi	8
French	22
English	21
other	32
TOTAL	916

Table 1.2 Source and number of borrowings in Makary Kotoko

1.3 Existing scholarship

There are about ten published articles by Henry Tourneux (in conjunction with Adam Mahamat in a couple cases) with data on the Makary Kotoko language. These articles address different aspects of the grammar of the language. Tourneux (2000a) is an introduction to the Kotoko languages in general. A claim made in that article which is relevant to Makary Kotoko in particular is that all the Kotoko languages have two tonal registers (H and L). Tourneux (2000b) discusses the means used to form the plural of nouns in the Kotoko languages. Tourneux (2003a) contains data on Makary Kotoko (and other Kotoko languages) regarding how location, direction, and movement are encoded. Tourneux (2003b) presents a proposal for the consonant systems of the different Kotoko languages. Tourneux (2003c) primarily describes a proposal for the vowel system of Zina Kotoko but makes a few comments regarding the vowel systems of the other Kotoko languages as well. Tourneux (2004b) discusses the personal pronouns in the Kotoko languages, in particular the independent pronouns and the object pronouns (with no distinction made between the direct and indirect object pronouns since tone is not noted for the Makary Kotoko forms). Tourneux (2005) presents the form of the numbers from 1 to 10, and 20 in the different Kotoko languages. Tourneux & Mahamat (2009a) discusses the formation of

relative clauses in the Kotoko languages. Tourneux & Mahamat (2009b) gives data solely from Makary Kotoko. It discusses issues pertaining to what I have termed the locative particles, as well as the prepositional verbs of the language. As well, Adam Mahamat has produced two works of his own: Mahamat (2005) is an unpublished thesis produced for his D.E.A. (Diplôme d'Etudes Approfondies (indepth studies diploma)). Mahamat (2005) "aims to provide a detailed phonological analysis" of Makary Kotoko (Mahamat 2005:i). The author adopts a generative approach in the analysis of the phonology of the language, making use of the Lexical Phonology model as developed in Kiparsky (1982, 1985) and Mohanan (1982) (Mahamat 2005:21). My analysis of Makary Kotoko differs in a number of ways from his analysis. I will highlight the similarities and differences in our analyses within the relevant sections of this work. Mahamat (2011) looks at different genres of oral texts in the language. In addition, I have two published articles on Makary Kotoko. Allison (2007) presents the linguistic evidence for the islamization of the Makary Kotoko by the Kanuri. It examines borrowings from Kanuri in the domains of family relations, body parts, household terms, market terms, days of the week, and religious terminology. Allison (2009) presents the formation of the aspect/mode/subject markers in Makary Kotoko.

1.4 Background

I began work on Makary Kotoko in the fall of 1998, in the context of a 'language development' project under the auspices of SIL. I worked initially from the city of Maroua with Massaou Djeli as my language consultant. At that time I gathered various paradigms and learned basic greetings in the

language. In February of 1999 I moved my family to the town of Makary. Language learning, data collection, and research continued with input from a variety of Makary Kotoko speakers but principally with the help of the following people who served as language consultants: Abdoulaye Dialo, Kaigama Malamine, Abakar Mahamat (Chalki), and Kalia Garba. My family and I lived in Makary, with intermittent breaks, till March 2006. While living in Makary, I used the language on a daily basis. Since moving out of Cameroon, I have made three month-long trips back to the Kotoko area, in the summer of 2007, 2008, and 2011.

1.5 Corpus

During our early time in the Makary Kotoko area, in the spring of 2000, I visited various Makary Kotoko villages and recorded a number of stories. The core of these stories forms the primary corpus for this study. In all, sixty stories of varying length constitute the corpus for this analysis. These stories are primarily narrative, given by both men and women of varying ages, from different Makary Kotoko villages around the town of Makary, and from different neighborhoods within Makary. In all, stories were recorded from five different villages, and from four neighborhoods within the town of Makary. The full list of the names of story contributors is given on the Acknowledgments page.

1.6 Approach

I have adopted Basic Linguistic Theory (BLT) (as described in Dixon (2010a,b) and elsewhere) as the model for this description of Makary Kotoko. While Lazard (2010) argues against BLT being a theory at all, Dryer (2006:223) refers to it as an informal descriptive theory. Using that framework I have taken a *non-aprioristic* approach, attempting to justify each category I propose on language internal

grounds. Where possible I have proposed explanations for the descriptions provided. When no explanation was forthcoming, I have had to be content to give as accurate a description as possible. Nonetheless, I have found the arguments Dryer (2006) makes regarding the distinction between descriptive theories (like BLT) and explanatory theories to be compelling. He argues that “a grammatical description of a language is ... not deficient or inadequate if it leaves out explanations for why the language is the way it is” (Dryer 2006:213).

I have attempted to write and organize the chapters in such a way as to walk the reader through the grammatical description of the language, providing the necessary information in the earlier parts of the grammar to understand the portions that follow. For instance in chapter 25, I address the conditions for the use of resumptive pronouns in Makary Kotoko. This is an issue which is relevant to two domains of the language – the pragmatic functions of placing a noun phrase in pre-subject position (cf. chapter 26), and relative clauses (discussed in chapter 27). I have also made extensive use of cross-referencing to point the reader to relevant sections of the grammar. Payne (2005) suggests that writing the grammar of a language can be viewed as a communicative act. By writing with more “familiar modes of communication,” grammar writing can be “more stimulating to write, and engaging to read” (Payne 2005:368). Hopefully, I have achieved that goal at least in part.

1.7 Linguistic overview

Makary Kotoko has six vowels, twenty seven consonants, and makes use of tone both lexically and grammatically. The high non-back vowels are neutralized word finally following a palatal

consonant due to a fronting effect of the palatal consonant. Similarly the high non-front vowels are neutralized word finally in pre-pausal position following a labial consonant. The language contains a series of implosives, a series of ejectives, and a series of prenasalized stops. Only sonorants can function as syllable codas. There are a number of consonant clusters word initially, all with a non-nasal sonorant as the second consonant of the cluster. There are five surface tones: high (H), mid (M), low (L), falling (F), and rising (R). R is extremely rare, and F only occurs word finally. In words with more than one syllable, only M precedes it. Grammatically, M tone is used to contrast the completive aspect from the neutral aspect forms.

Major lexical categories include nouns, verbs, adjectives, adverbs, and ideophones. There is a very limited amount of morphology in the language. As such it tends toward an isolating typological profile. Nouns can be coded for plurality and the diminutive. In addition, there are three nominalization processes, forming nouns from verbs, adjectives, and other nouns. All modifiers follow the head noun. The verb class is limited in number (about 270 in my lexicon). There is a small class of intransitive verbs, a small class of transitive verbs, and a larger class of (S = A) ambitransitive verbs. A small subset of ambitransitive verbs always has a preposition after the verb whether the object of the preposition is expressed or not. I call these prepositional verbs. Verbs can be coded for plurality, be marked with an applicative suffix, or a causative suffix. Adjectives generally agree in number with the noun they modify. Temporal and epistemic adverbs generally precede the verb phrase while manner adverbs

usually follow it. Ideophones are distinguished from other lexical categories by their unusual phonological shape, their propensity to be reduplicated, and their very context-specific meanings.

The minor lexical categories and grammatical markers include prepositions, demonstratives, determiners, pronouns, subject markers, aspect/mode markers, locative particles, etc. Demonstratives are of two types: (i) nominal demonstratives, and (ii) local adverbial demonstratives. They generally have a deictic function, situating entities relative to the speaker. Non-subject pronouns distinguish gender for second and third person. The first person plural forms distinguish an inclusive form from an exclusive form. The subject markers are (almost) always required in verbal predication, and can have aspect/mode coding on them. The aspect/mode codings identified are completive, incompletive, irrealis, volitive and prohibitive. In addition there is a paradigm of subject markers which appears to be uncoded for aspect/mode that I call the neutral aspect forms. The locative particles contribute spatial orientation information for the situation described in the clause.

The neutral word order is AVO/SV (where V stands for verb, A for most-agent like argument of transitive clause, O for most patient-like argument of transitive clause, and S for only argument of intransitive clause). The verb phrase can have up to four arguments which occur in a consistent order relative to each other after the verb: (i) indirect object, (ii) means/manner/reason marker, (iii) direct object, and (iv) locative complement. The pronominal realizations of the indirect object and the direct object are distinguished from each other by tone (for certain persons). The means/manner/reason marker

indicates that a previously mentioned entity functions as the means/manner/reason for the situation of the clause in which it occurs. Which notion is conveyed is determined by context.

A noun phrase can be placed in pre-subject position (before the subject marker and the verb) and coded with a small number of markers in order to convey pragmatic information about the referent of that noun phrase relative to the situation described in the clause.

Three of the four major non-verbal predication constructions make use of a copular element. The fourth simply juxtaposes two noun phrases. These constructions are used to express notions of identity, attribution, possession, location, and existence.

Clauses can be combined through various means, including sequential and non-sequential markers which code the succession and non-succession of situations described in the discourse.

2 Phonology

This chapter provides an overview of the synchronic sound system of Makary Kotoko. I discuss the phonemes of the language, acceptable syllable structures, phonological processes in effect, and the tonal system in the language. Mahamat (2005) describes and formalizes aspects of the phonology of Makary Kotoko, including segments, syllable structures (2005:151-184), phonological processes (i.e., nasal assimilation (2005:122-126), palatalization (2005:126-129), regressive nasalization (2005:129-131), cases of epenthesis (2005:132-133), coalescence (2005:133), vowel and consonant deletion (2005:133-136), devoicing (2005:136-138), devocalization (i.e., glide formation) (2005:139-140), vowel harmony (2005:141-144), and reduplication (2005:144-145)), and aspects of lexical and grammatical tone in the verbal system, albeit from the perspective of a two tone system (2005:185-249). As the chapter progresses I note where my analysis is different from that proposed in Mahamat (2005). In chapter 3, I present cases of phonologically and functionally conditioned allomorphy.

2.1 Consonants

Within the consonant system, Mahamat (2005) distinguishes six places of articulation (labial, alveolar, laminal, pre-palatal, velar, and glottal). My analysis has only five places of articulation (bilabial/labiodental, apico-alveolar, lamino-palatal, dorso-velar, and glottal) (cf. Table 2.1 below). Thus, Mahamat (2005) distinguishes a distinct laminal place of articulation. This laminal place of articulation contains the phonemes /ts, s, z/. The non-ejective laminal affricate /ts/ in Mahamat (2005) appears to correspond with what I have transcribed as a lamino-palatal affricate ejective [tʃʰ] (i.e., [tsàl])

‘bloodsucker’ in Mahamat (2005:12) is [tʃʼāl] in my data). I have included /s, z/ in my column of apico-alveolar sounds. The sounds [ɖ] and [ndɖ], which are non-existent in my corpus, are also listed as laminal in Mahamat’s table of phonetic consonants (2005:12), though no examples containing these sounds occur in his work, and no explanation is given as to why they do not have phonemic status.

The consonant sounds of Makary Kotoko are given in the following table.

		Bilabial/ Labiodental	Apico- alveolar	Lamino- palatal	Dorso- velar	Glottal
Stops / Affricates	voiceless	p	t	tʃ	k	(ʔ)
	voiced	b	d	ɖ	g	
Prenasalized		mb	nd		ng	
Glottalic	Implosives	ɓ	ɗ			
	Ejectives	(fʼ)	tsʼ	tʃʼ	kʼ	
Fricatives	voiceless	f	s	ʃ		h
	voiced		z			
Nasals		m	n	(ɲ)	(ŋ)	
Flap			r [r]			
Lateral			l			
Glides		w		y [j]		

Table 2.1 Consonants of Makary Kotoko

The four sounds that occur in parentheses ([ʔ, fʼ, ɲ, ŋ]) are not analysed as phonemes of the language. The glottal stop generally only occurs in interjections or words borrowed from Arabic, usually between identical vowels (e.g. *saʔábu* ‘reconciliation’).¹ The labio-dental fricative ejective only occurs in one variant of a single word (*mkʼweyó, mfʼeyó* ‘shell, mussel’).

¹ In an article presenting the consonant systems (‘systèmes phonologiques actuels’ (2003b:115)) of the Kotoko languages, Tourneux (2003b:133) makes the generalization that ‘il n’existe pas d’initiale vocalique en KOTOKO.’ In a later paper, Tourneux & Mahamat (2009a:151 (footnote 1)) claim that ‘les mots commencent tous par une

Regarding the palatal nasal, Mahamat (2005:13) states that “la nasale /n/ quand elle précède les voyelles antérieures [i] et [e] devient [ɲ]” (the nasal /n/ becomes [ɲ] when preceded by the front vowels [i] and [e]) (2005:13). My corpus contains the minimal pairs [sànê] ‘cloth worn by a woman’ and [sàpè] ‘threshing floor’, as well as [ní] (L.P.) and [ɲì] (thing:ABSTR) which would contradict the statement by Mahamat (2005) since the front vowels are preceded by the alveolar nasal in the first word of each minimal pair. In addition to occurring in the highly frequent word *nyí* (thing:ABSTR) (realized [ɲì] by some speakers), the palatal nasal also appears in a few ideophones (e.g. *nyan* [ɲàŋ] ‘wide open (e.g. of s.o.’s mouth)’), an interjection (*ányá* [áɲá] an expression of surprise (possibly a borrowing)), a few borrowings (e.g. *nyamnyamí* [ɲàmɲàmí] ‘drizzle (n.)’ (from KA.)), and when the infinitive form of the verb (ending in /n/) is followed by the locative particle *yo* (e.g. *skán yo* [skáɲò] ‘misery’). I treat it as a sequence instead of a phoneme for two reasons: (i) while the sonorant phonemes (m, n, l, r, w, y) can each occur in syllable coda position, [ɲ] cannot; and (ii) there appears to be no principaled reason to distinguish [ɲ] from other /Cy/ sequences in the language (e.g. *syū* ‘hawk’, *hyū* ‘become skinny’, *pyāskə* ‘thirty’, *fyū* ‘line’, *byats’ə* (describes inappropriately walking on a sitting mat)) (cf. section 2.3 for additional examples).² Were I to give it phonemic status I would need to explain (i) why it fails to pattern with the other sonorants of the language, and (ii) why this /Cy/ sequence has phonemic status while other /Cy/ sequences don’t.

consonne, mais quand il s’agit de l’occlusion glottale, nous la marquerons pas.’ Contrary to their claims, my data for Makary Kotoko contains vowels in word initial position (with no preceding glottal stop), as shown further below.

² Tourneux (2003b:116) gives phonemic status to [ɲ] for Makary Kotoko but gives no data to support this claim.

Concerning the velar nasal, Mahamat (2005) notes that “la vélaire [ŋ] est en distribution complémentaire avec /n/ et apparaît en finale des mots et devant [g]” (the velar [ŋ] is in complementary distribution with /n/ and appears at the end of words and before [g]) (2005:13). In my analysis the velar nasal [ŋ] is a variant of /n/ occurring syllable finally (e.g. [àŋ.sàŋ] ‘forked branch’), not just word finally. In my data the velar nasal [ŋ] also occurs before [g], but unlike Mahamat (2005), I recognize a series of prenasalized stops (cf. section 2.1.1). The summary of my analysis of the velar nasal is that [ŋ] is an allophone of /n/, occurring in two environments:

(i) syllable-finally (e.g. *ansan* [àŋ.sàŋ] ‘forked branch’)
/n/ → [ŋ] / _ . (where the dot represents a syllable break)

(ii) when the nasal is syllabic in word initial position in nouns (e.g. *nsan* [ŋ.sàŋ] ‘sleep (n.)’, *nk’ân* [ŋ.k’ân] ‘fingernail, claw’).
/n/ → [ŋ] / when syllabic in word initial position in nouns

The sound [ŋ] is also a component of the unit phoneme /ng/ (phonetically [ŋg]) (e.g. *ngaba* ‘white’) (cf. section 2.1.1 below)

Mahamat (2005:13) states that the implosives /b, d/ “sont dans la plupart des cas précédées de la nasale /m/” (/b, d/ are preceded by the nasal /m/ most of the time). In my data, the implosives occur far more frequently without the preceding nasal than with it.

Mahamat (2005) identifies two ejective phonemes (/ts^l, g^l/) in his data. My corpus contains three (/ts^l, tʃ^l, k^l/). Mahamat writes the velar stop ejective as /g^l/ while I represent it as /k^l/. As noted above, the

lamino-palatal affricate ejective [tʃʰ] in my data appears to correspond with a non-ejective laminal affricate /ts/ in Mahamat (2005).

Mahamat (2005) states that the glottal fricative /h/ only occurs word initially (2005:14). In my corpus it also occurs in syllable initial position word internally (e.g. *āhe* ‘snake’, *wahən* ‘wood’).

The table of phonemic consonants in Mahamat (2005:16) contains the pre-palatal fricative /ʃ/, yet he notes, paradoxically, that “la pré-palatale /ʃ/ n’a pas de partenaire sonore /ʒ/” (the prepalatal /ʃ/ does not have a voiced counterpart /ʒ/) (2005:14). My corpus contains no instances of [ʒ].

Tourneux (2003b:116) has a voiced velar fricative /ɣ/ among the series of voiceless fricative phonemes, but gives no evidence for its phonemic status. Curiously, in his conclusions regarding the consonant systems of the Kotoko languages, he makes the statement that ‘les fricatives n’auraient pas de corrélat sourd’ (2003b:134). I have no occurrences of [ɣ] in my data.

The voiceless bilabial stop /p/ and the voiced alveolar fricative /z/ principally occur in words that have been identified as borrowings. The symbols used are those proposed by the IPA with two exceptions. The palatal glide is written ‘y’ instead of [j]. The alveolar flap is written ‘r’ instead of [ɾ]. In all, there are twenty seven consonant phonemes in the language.

The following table of nominal examples provides evidence for the contrast between the consonantal sounds, with each consonant followed by [a] (and in word initial position when possible).

Labial	Alveolar	Alveo-palatal	Velar
/p/ pāngəm ‘pea (SP)’	/t/ tangadi ‘stretcher’	/tʃ/ tʃíntʃar ‘bird (SP)’	/k/ kangwadə ‘fear’
/b/ bāngām ‘temple (of head)’	/d/ dāngwāle ‘bow-leggedness’	/ɕ/ ngúrɕá ‘fishing lead’	/g/ gāngán ‘fishing net (SP)’
/mb/ mbálā ‘arm’	/nd/ ndātʃʼan ‘brain’		/ng/ ngāba ‘pelican’
/ʃ/ ʃaʃá ‘story’	/ɖ/ ɖāga ‘fishing net (SP)’		
	/tsʼ/ tsʼāle ‘strength’	/tʃʼ/ tʃʼafare ‘rubbish’	/kʼ/ kʼakʼamó ‘ankle’
/f/ fade ‘night’	/s/ sáfān ‘guinea fowl’	/ʃ/ ʃáfū ‘weeds, grass’	/h/ hásān ‘nose’
	/z/ zaga ‘part of fishing net’		
/m/ madare ‘crotch (of tree)’	/n/ nakôn ‘tree seed (SP)’		
/w/ wahíe ‘grain, cereal’	/l/ lagan ‘horn’		/y/ yága ‘flying squirrel’
	/r/ rapâ ‘younger brother of mother’		

Table 2.2 Contrasts for consonants

2.1.1 Prenasalized stops

Tourneux (2003b), speaking of the Kotoko languages in general, states that “il n’existe pas de consonne prénasalisée en kotoko” (there are no prenasalized consonants in the Kotoko languages)

(2003b:133). Mahamat (2005:12) lists a series of prenasalized stops (mb, nd, ndz, ndʒ, ŋg, ŋgb) in his table of phonetic consonants, but he doesn't give phonemic status to any of them, noting that "il est difficile pour nous d'adopter une décision définitive" (it is difficult for me to propose a definitive decision) (2005:14). He provides evidence that other (non-homorganic) consonants can be preceded by a nasal as well. My analysis distinguishes the phonological behavior of the homorganic series (limited to /mb, nd, ng/) from the behavior of nC sequences in the language.³ The arguments in support of the phonemic status of the homorganic prenasalized series are as follows: (i) while a nasal followed by other obstruents only occurs word initially (e.g. *mpal* [m̩.pàl] 'food', *mdaʒe* [m̩.dàʒè] 'mud', *nk'ân* [ŋ̩.kâŋ] 'fingernail'), the homorganic series occurs word internally in syllable onset position like single segment phonemes do (e.g. *təmbalmbáy* [tə.mbàl.mbáy] 'bracelet, child's game', *kléwndāk'o* [kléw.ndā.k'ò] 'chameleon', *angurnguf'i* [à.ŋùr.ŋù.ʔ'ì] 'pigeon (SP)'); (ii) while a nasal followed by other obstruents only occurs in nouns (e.g. *mts'afú* [m̩.ts'à.fú] 'tail', *mfâr* [m̩.ʃâr] 'axe', *nsán* [ŋ̩.sán] 'sleep'), the homorganic series occurs in a wider range of lexical categories, as single segment phonemes do (e.g. verbs: *mban* 'wash', *ndə* 'see', *ngá* (*he*) 'break'; adjectives: *mbalk'é* 'clumsy, imprecise', *ngaba* 'white'; adverbs: *mblân* 'anew', local adverbial demonstratives: *ndéwe* (DEM:F), etc.); (iii) while a nasal followed by other obstruents is consistently pronounced with L tone and appears to

³ Strictly speaking, the sequences [mp], [m̩b], [ŋk], and [ŋk'] are also homorganic. However, unlike the homorganic series /mb, nd, ng/, these sequences pattern with other nasal + obstruent sequences.

constitute its own syllable (e.g. *mbálá* [m̄.bá.lá] ‘open plot of land’), the nasal of the homorganic series is toneless, perceptually forming a single sound with the following stop (e.g., *mbálā* [mbálā] ‘arm’).⁴

2.1.2 Not labialized velars

Mahamat (2005:12) includes a series of labio-velars [kp, gb, ŋgb] in his table of phonetic consonants, and then proposes that “la sourde [kp] est une variante de /p/ qui apparaît parfois à l’initiale des mots devant la voyelle antérieure [e]” (the voiceless [kp] is a variant of /p/ which appears sometimes at the beginning of words before the front vowel [e]) (2005:13). Mahamat does not explain what conditions the ‘sometimes’ aspect of this variation. Mahamat also notes that “la sonore [gb] est un allophone de /b/ dans certains environnements intervocaliques et après la nasale [ŋ].” (the voiced [gb] is an allophone of /b/ in certain intervocalic environments and after the nasal [ŋ]) (2005:13). Mahamat does not explain what the ‘certain intervocalic environments’ are which would condition the variation. My analysis identifies a series of labio-velars in the dialect of Makary Kotoko spoken around the village of Bodo (cf. Table 2.3 below).

Tourneau (2003:116) recognizes a series of labialized velars/labio-velars (k^w/kp, g^w/gb, k^{lw}) for Makary Kotoko. I think, however, that this is a debatable point. Makary Kotoko allows clusters of two consonants in syllable onset position where the second consonant is a non-nasal sonorant (i.e., l, r, w, y). I have already used this fact to argue against the phonemic status of the /ny/ sequence. In similar

⁴ Possible (though somewhat anecdotal) support for my claim that the nasal of the homorganic series is toneless and perceptually forms a single sound with the following stop is the contrast in the transcription that I have for the 3SG:M nominal demonstrative (*nda* (só) (DEM:M DET:M)) with what Tourneau & Mahamat (2009a:156) give: *da* (só). The absence of the nasal in their transcription may well be because the nasal component has not been perceived since it perceptually forms a single sound with the oral stop. Interestingly, in another article, Tourneau & Mahamat (2009b) consistently transcribe the 3SG:M nominal demonstrative as *ndà* (só).

fashion, I argue that, synchronically, the /Kw/ clusters (where K stands for /g/, /k/, and /k'/) are not phonemes but sequences, like other /Cw/ sequences of the language (e.g. *mbwála* ‘rain gutter’, *adwâr* ‘afternoon’, *swáre* ‘dream’) (cf. section 2.3 for additional examples). Were I to give phonemic status to /gw/, /kw/, and /k'w/, I would need to explain why these /Cw/ sequences have phonemic status while other /Cw/ sequences don't. However, the dialect of Makary Kotoko spoken around the town of Bodo does give evidence for a labio-velar series. This dialect has a series of labio-velars: /kp/, /gb/, /nmgɓ/ and /gɓ/ which correspond with the sequences /kw/, /gw/, /ngw/ and /k'w/ in the main dialect, as shown in the table below.

Makary Kotoko		Bodo dialect		Meaning
/kw/	kwéjī	/kp/	kpétjī ⁵	<i>bush</i> (SP)
/gw/	gwadál	/gb/	gbadál	<i>calf</i> (of leg)
/ngw/	ngwən	/(n)mgb/	nmgbən	<i>stomach</i>
/k'w/	k'wasál	/gɓ/	gɓasál	<i>smoke</i>

Table 2.3 Labio-velars in Bodo dialect

It is possible that Tourneux (2003) includes data from the Bodo dialect in his proposal to recognize a labialized velar/labio-velar series for Makary Kotoko. I have explicitly limited my analysis to the main dialect of Makary Kotoko spoken in and around the village of Makary.

2.1.3 Structure of syllable codas

Only the sonorants (m, n, l, r, w, y) occur in syllable coda position (e.g. /m/: *nəmdə* [nəm.də] ‘ash’, *sam* ‘ram’; /n/: *ansan* [àn.sàn] ‘forked branch’; /l/: *bəlk'ó* [bəl.k'ó] ‘thorn tree (SP)’, *ngwâl* ‘corn husk’; /r/: *artfafa* [àr.tjà.tjà] ‘toad’, *ngwār* ‘female slave’; /w/: *māwdā* [māw.dā] ‘monster’, *káráw*

⁵ This dialect also has the phoneme /tʃ/ instead of /f/ in non-borrowed terms.

‘incense burner’; /y/: *fəysə* [fèy.sə] ‘sekko screening in doorway’, *gay* ‘song’). The only exception to this is the lexical class of ideophones, which allows stops and fricatives in syllable coda position (e.g. *mərət* ‘sound of a cord breaking’). I make mention of this constraint at this point as it is relevant to the discussion of the phonemic status of vowels presented below.

2.2 Vowels

For the vowel system, Mahamat (2005) provides minimal pairs and near minimal pairs contrasting the high central vowel with the five other vowels of the system. Unlike my corpus, his corpus does not contain examples demonstrating the non-predictability of the presence and position of the high central vowel [ɨ] within the word (cf. section 2.2.1). He notes “il n’existe pas de contraste entre sa présence et son absence dans un mot” (there is no contrast between the presence and absence [of the high central vowel] in a word) (2005:18).⁶ My analysis provides evidence for the phonemic status of the high central vowel. The vowel sounds of Makary Kotoko are given in the following table.

	Front	Central	Back
High	i	ə [ɨ]	u
Mid	e		o
Low		a	

Table 2.4 Vowels of Makary Kotoko

⁶ Within the verbal system, Mahamat distinguishes verbs that end in a vowel from those that end in a consonant. Curiously, in his list of monosyllabic CV verbs, he has a handful where V is the high central vowel (2005:69). The same is true for the second vowel in the disyllabic CVCV verbs (2005:70). This would suggest that in these cases Mahamat considers the high central vowel to be phonemic, and not epenthetic as he proposes earlier (2005:17).

The symbols used are those proposed by the IPA with one exception. The high central vowel is written ‘ə’ instead of [ɨ]. I provide evidence below showing that all six vowels are phonemic.⁷

/i/ sí ‘tree’ fi ‘give’ wi ‘husband’	/ə/ sə ‘eye’ fə ‘change’	/u/ su ‘maggot’ fú ‘fire’
/e/ sē ‘drink (v)’ fé ‘call (v)’ we ‘neck’	/a/ sā ‘dwell’ fā ‘year’ wa ‘thing:CONC:PL’	/o/ só ‘enter’ fō ‘run’ wo ‘village, language’

Table 2.5 Contrasts for vowels

All six vowels can occur in word initial position though minimal pairs don’t exist.

/i/ íngā ‘food’	/ə/ ərfu ‘heart’	/u/ ūda ‘village limits’
/e/ ēni ‘milk, sap’	/a/ amé ‘water’	/o/ ófu ‘natural calamity’

Table 2.6 Vowels in word initial position

2.2.1 Phonemic status of schwa

In the table above, the position of schwa word initially in *ərfu* ‘heart’ is not predictable. As noted in the section on consonants, only sonorants can occur in syllable coda position. Since [r] can occur as a syllable coda (e.g. *ngárno* [ngár.nò] ‘help’) or in word initial position (e.g. *rəbatə* ‘writing’), it is not possible to predict the position of schwa before or after [r], providing evidence for its phonemic status word initially. Similarly, in the word *wālə* ‘be difficult, hurt’ the presence of the schwa word

⁷ In Allison (2007) I propose a five vowel system (excluding /ə/) for native words. I note that in ‘the sub-lexicon of non borrowed words, the high central vowel ... functions as an epenthetic vowel, inserted when surface syllable constraints require it.’ (Allison 2007:12 (footnote 8)). Though it would be possible to analyse some instances of [ə] as epenthetic (cf. section 5.3 where I describe the phonologically conditioned variants of the infinitive marker), it is not possible to account for all occurrences of [ə] in this way. With the incorporation of numerous borrowings (primarily from Kanuri) into the language, the phonemic status of /ə/ has been bolstered.

finally is not predictable, giving evidence for its phonemic status word finally. In fact this verb is in contrast with the verb *wal (ho)* ‘risk’ where the liquid is in syllable coda position. These two verbs show a contrast between the presence and absence of schwa word finally. Also, in the word *k’əməsə* ‘be twisted’, the vowel after the bilabial nasal is not predictable. Since sonorants can occur syllable finally, if the word medial schwas were epenthetic, placed according to phonotactic constraints, the word would have the form **k’əmsə*. As such, this word gives evidence for the phonemic status of schwa word medially. In summary, I recognize six vowel phonemes for the language.⁸

2.3 Syllable structures

The following syllable structures occur in Makary Kotoko (using the following abbreviations: C

– consonant, V – vowel, N – syllabic nasal, S – sonorant (m, n, l, r, w, y), L – non-nasal sonorant (l, r, w, y):

V (e.g. *anóm* [à.nóm] ‘south’, *ēni* [ē.nì] ‘milk’)

N – only word initially (e.g. *mts’afú* [m̩.ts’à.fú] ‘rainy season millet’, *nsé* [ŋ̩.sê] ‘eyes’)

CV (e.g. *nówó* ‘finger’, *bábá* ‘shoulder blade’)

VS (e.g. *álgə* [ál.gə] ‘person’, *amsé* [ám.sé] ‘word’)

CVS (e.g. *amân* [à.mân] ‘trust’, *tén* ‘ground’)

CLV(S) (e.g. *gráya* [grá.ya] ‘antelope (SP)’, *blō* ‘man’, *gwá* ‘cry’, *adwâr* [à.dwâr] ‘afternoon’, *aswan* [à.swàn] ‘spider’, *syū* ‘hawk’)

sk(w)V(C) (e.g. *skále* ‘area between the legs’, *skwi* ‘fly’, *muskwa* [mù.skwà] ‘lily pad’)

sk’V (*ngəsk’o* [ŋgə.sk’ò] ‘last’)

ftV(C) (e.g. *ftī* ‘fish (SP)’, *ftar* ‘lion’)

⁸ Tourneux (2003c) makes a similar statement (though without providing evidence for the proposed contrasts) in speaking of the Kotoko languages in general (excluding Zina and Mazera), saying “il est beaucoup plus difficile de ne pas considérer qu’ils présentent six phonèmes vocaliques /i, e, a, ə, o, u/” (Tourneux 2003c:73).

There are a number of possible CL sequences in syllable onset position in the corpus. The table below provides additional data.

CL	Lexeme	Meaning	CL	Lexeme	Meaning
Cr			Cw		
br	bráya	<i>whitewashing</i>	dw	adwâr	<i>afternoon</i>
mbr	mbrío	<i>somersault</i>	ndw	ndwa	<i>be at (F)</i>
fr	māfre	<i>namesake</i>	ƒw	ƒwâl	<i>sack</i>
tr	ātro	<i>perhaps</i>	sw	swáre	<i>dream</i>
dr	bādri	<i>vulture</i>	gw	dǎgwe	<i>clay jar</i>
gr	gráya	<i>antelope</i>	ngw	ngwájé	<i>traditional wrestling</i>
ngr	ngrí	<i>gazelle</i>	kw	kwéjī	<i>bush (SP)</i>
Cl			k'w	mārk'we	<i>bran</i>
bl	bli	<i>sauce</i>	nk'w	nk'wálé	<i>eagle</i>
mbl	mbliámé	<i>cup</i>	Cy		
pl	plá	<i>butter</i>	by	byats'ə	IDEO
fl	fla	<i>slap (n.)</i>	py	pyāskə	<i>thirty</i>
gl	ágló	<i>embellishment</i>	fy	fyū	<i>line</i>
kl	klê	<i>parrot like bird</i>	sy	syū	<i>hawk</i>
k'l	k'lemámó	<i>wasp (SP)</i>	ny	nyi	<i>thing.ABSTR</i>
ngl	nglí	<i>penis</i>	ky	fakyé	<i>exorcism ceremony</i>
Cw			hy	hyû	<i>become skinny</i>
mbw	mbwála	<i>rain gutter</i>			

Table 2.7 Syllable initial consonant clusters

2.4 Phonological processes

2.4.1 Vowel fronting effect

Word finally, there are no occurrences of /ə/ following a palatal consonant. I attribute this to a fronting effect that palatal consonants have on high non-back vowels. That the effect does not apply to all high vowels (i.e., to the high back vowel /u/ as well) can be seen in the word *fú* 'meat'. Because of the fronting effect, the contrast between /i/ and /ə/ is neutralized word finally following a palatal

consonant (e.g. *ʃi* ‘forge’, *ʃi* ‘transplant’, *ɕʒi* ‘remain, stay’, *enʃi* ‘bone’, *angurnguʃi* ‘pigeon (SP)’, *hálɕi* ‘field clearing’). The fronting effect does not apply word internally as shown by the following examples: *ʃɔʃɔʃɔ* ‘skunk’, *ɕʒambágálá* ‘wild rice’.

2.4.2 Vowel rounding effect

In somewhat similar fashion, there are no occurrences of /ə/ following a labial consonant word finally in pre-pausal position. I attribute this to a rounding effect that labial consonants have on high non-front vowels. That the effect does not apply to all high vowels (i.e., to the high front vowel /i/ as well) can be seen in the word *kābi* ‘(hunting) bow’. Because of the rounding effect, the contrast between /u/ and /ə/ is neutralized word finally following a labial consonant (e.g. *ʃábu* ‘wash’, *ʃímū* ‘name (n.)’, *támbū* ‘vagina’). The rounding effect does not apply word internally as shown by the following examples: *kabəgá* ‘span’, *pédəm* ‘far’, *wələm* ‘hole’. The prepositional verb *sábə gə* ‘wait for’ gives evidence for the stipulation that the rounding effect is not in effect in non pre-pausal position.

2.4.3 Palatalization effect

In a small number of (generally highly frequent) words, velar consonants are often palatalized before the high front vowel /i/. This is more evident in rapid speech.

Process	Variation	Meaning
/k/ → [tʃ]	/kíó/ → [tʃíó]	fish
	/kíða/ → [tʃíðà]	work
/g/ → [ɕ]	/gīsu/ → [ɕīsù]	tomorrow
	/giatála/ → [ɕiàtálà]	nine

Table 2.8 Palatalization process

indistinguishable in that position. I have carried out my analysis of lexical tone on 1425 nouns and 290 verbs. Tone does not appear to be affected by (i) contiguous consonants (i.e, consonant-tone interaction whereby a consonant has a raising or depressing effect on a contiguous tone¹⁰), (ii) the quality of the vowel on which the tone is realized, or (iii) the structure of the syllable in which the tone occurs.¹¹

Tone is both lexical and grammatical.¹² I address first evidence for recognizing a M tone lexically, then present the tonal patterns that occur on one, two and three syllable nouns, and one and two syllable verbs (since there are only a handful of three syllable verbs). I finish with cases of grammatical tone.

2.5.1 M tone in Makary Kotoko

Both Mahamat (2005:23,187) and Tourneux (2000a) analyze Makary Kotoko as having two underlying tones. In speaking of the Kotoko languages in general, Tourneux (2000a) claims that ‘toutes les langues « kotoko » ont deux registres tonals de base (H/B)’ (all the Kotoko languages have two basic tonal registers (H/L) (Tourneux 2000a:113). With respect to Makary Kotoko in particular, Mahamat (2005) states that “le mpádi a deux tons sous-jacents: un ton haut et un ton bas.” (Makary Kotoko has two underlying ones: H tone and L tone) (2005:23, cf. also p.187). Neither author makes

¹⁰ For example, Wolff (1983:66ff) describes a depressing effect that a group of ‘depressor’ consonants have on the tone of subsequent syllables in Lamang, a Central Chadic A language. In contrast, for Logone Birni Kotoko (lagwan), Ruff (2005) notes that “no evidence of interaction between consonant type and phonological tone has been found ... in Lagwan” (Ruff 2005:50).

¹¹ Yip (2007) points out that “there are some instances of correlations between tones and vowel quality (mainly vowel height)” (Yip 2007:233). Ruff (2005), in analyzing the phonology of Logone-Birni Kotoko (lagwan), found that high vowels have a pitch raising effect, and that syllable structure was a determining factor in the realization of tone for that language. Neither of these factors appears to influence the realization of tone in Makary Kotoko.

¹² Cf. Mahamat (2005:186-249) who discusses and formalizes aspects of lexical and grammatical tone in Makary Kotoko albeit from the perspective of a two tone system.

mention of the existence of a M tone phonetically. My data contains a M tone that is not reducible to either an underlying L or H tone through tonal processes (i.e., tone raising, lowering, etc.). Comparing my tonal transcription of one syllable verbs with that given by Mahamat (2005:189-190), the general pattern to emerge is that what I transcribe with a M tone is transcribed with a L tone in Mahamat (2005). Table 2.9 below provides a handful of examples, many of which are highly frequent verbs.

Form	Mahamat (2005)	SDA	Meaning
dɛ	L	M	<i>(be) softened by soaking in water</i>
dɔ	L	M	<i>bring</i>
dɛ	L	M	<i>throw, bite, shoot</i>
də	L	M	<i>go</i>
fɔ	L	M	<i>run</i>
hən	L	M	<i>do</i>
tʃ ^h a	L	M	<i>laugh</i>

Table 2.9 M tone in Makary Kotoko

The verb *hən* ‘do’ is transcribed with a H tone in Mahamat ([hɛ̃]) but listed among the L tone monosyllabic verbs. The voiceless lamino-palatal affricate ejective of the verb *tʃ^ha* ‘laugh’ is transcribed as a voiced lamino-palatal affricate ([dʒa]) in Mahamat (2005:189).

Though there are no triplets of minimal pairs for H, M, and L tone in the noun system, there are, however, near minimal pairs. Consider, for instance, the three feminine nouns *gó* ‘head’, *wō* ‘summit’, and *wɔ* ‘village’. Working with my language consultant Kaigama Malamine, I made recordings of each of these words followed by the H tone feminine determiner *dó*. The table below provides the frequency of each lexeme before the feminine determiner. The definite determiner was consistently realized around 200 Hz for this speaker, regardless of the preceding environment. Note that

the H tone word *gó* ‘head’ is realized at about the same level as the following determiner. The M tone of *wō* ‘summit’ is about 20 Hz lower, and the L tone of *wo* ‘village’ 20-25 Hz below M. These values are quite consistent for words bearing these tones for this speaker.

Tone	Lexeme	Frequency (Hz)		Meaning
		Lexeme	<i>dó</i>	
H	<i>gó</i>	199.6	205.4	<i>head</i>
M	<i>wō</i>	182.6	198.3	<i>summit</i>
L	<i>wo</i>	154.8	197.6	<i>village</i>

Table 2.10 Tone frequencies

2.5.2 One syllable nouns

H, M, L, and F can occur on one syllable nouns. Tonal contrasts that occur in the data are given in the following table.

Contrast	Lexeme	Meaning	Lexeme	Meaning
L/H	<i>si</i>	<i>body</i>	<i>sí</i>	<i>tree</i>
L/H	<i>ya</i>	<i>shame</i>	<i>yá</i>	<i>mother</i>
L/H	<i>ʃa</i>	<i>inhabitant</i>	<i>ʃá</i>	<i>cow</i>
L/M	<i>ga</i>	<i>mouth</i>	<i>gā</i>	<i>portion</i>
L/M	<i>gay</i>	<i>song</i>	<i>gāy</i>	<i>river's edge</i>
L/M	<i>wo</i>	<i>village, language</i>	<i>wō</i>	<i>summit</i>
M/F	<i>sāw</i>	<i>stick</i>	<i>sâw</i>	<i>Sao</i>
M/F	<i>syū</i>	<i>hawk</i>	<i>syû</i>	<i>iron</i>

Table 2.11a Tonal contrasts on one syllable nouns

There are no minimal pairs for H/M, H/F, and L/F contrasts. Near minimal pairs are given below for H/M and H/F.

Contrast	Lexeme	Meaning	Lexeme	Meaning
H/M	<i>gwá</i>	<i>cry</i>	<i>gā</i>	<i>portion</i>

H/M	gó	<i>head</i>	ngō	<i>place</i>
H/F	só	<i>eye, day</i>	sâ	<i>hour, time</i>

Table 2.11b Tonal contrasts on one syllable nouns

L contrasts with F in the following pair of words which both begin with a syllabic nasal.

Contrast	Lexeme	Meaning	Lexeme	Meaning
L/F	mts ^l i	<i>vine</i>	mts ^l î	<i>wind</i>

Table 2.11c Tonal contrasts on one syllable nouns

2.5.3 Two syllable nouns

There are eight tonal patterns on two syllable nouns: L, ML, HL, M, HM, LH, H, MF. Setting

MF aside, the other tonal patterns represent seven of the nine possible patterns in a three tone system on

two syllables, as shown in the table below.

1 st σ →	L	M	H
2 nd σ ↓			
L	LL	ML	HL
M		MM	HM
H	LH		HH

Table 2.12 Tonal patterns on two syllable nouns

The two patterns that are absent (LM and MH) represent a half-step rise in tone. It would be convenient to analyse the MF pattern as an instantiation of either LM, or MH, or both, though I'm not sure how to justify that approach. Tonal contrasts do not exist for each possible tonal pairing, but the contrasts which do occur in the data are given in the following table.

Contrast	Lexeme	Meaning	Lexeme	Meaning
L/ML	galam	<i>fish (SP)</i>	gālam	<i>coward</i>
L/ML	ngaba	<i>white</i>	ngāba	<i>pelican</i>
L/H	dəla	<i>coolness</i>	dólá	<i>jackal</i>
H/ML	máčǵí	<i>sub-chief</i>	māčǵi	<i>left (hand)</i>

Contrast	Lexeme	Meaning	Lexeme	Meaning
H/ML	míó	<i>knife</i>	mīo	<i>sharing</i>
HL/ML	gási	<i>negative action</i>	gāsi	<i>two</i>
HL/ML	érfu	<i>sign</i>	ērfu	<i>heart</i>
HL/ML	wási	<i>advice</i>	wāsi	<i>massage</i>
HL/HM	sálgə	<i>wire; fence</i>	sálgə	<i>star; amulet</i>
HM/ML	sámē	<i>sky</i>	sāme	<i>entrance hut</i>
HM/ML	hádī	<i>thief; white hair</i>	hādī	<i>itch</i>
HM/ML	bārī	<i>gourd</i>	bāri	<i>branch of a river</i>
HM/ML	mbálā	<i>arm, wing</i>	mbāla	<i>fish (SP)</i>
HM/ML	fónfōn	<i>water pump</i>	fōnfon	<i>charcoal</i>
HM/M	bāngām	<i>temple (of head)</i>	bāngām	<i>broken down house</i>
LH/ML	enǰí	<i>bone</i>	ēnǰi	<i>tongue, lie</i>
LH/ML	ení	<i>so and so</i>	ēni	<i>milk</i>
LH/M	bugú	<i>sack</i>	būgū	<i>explosion</i>
LH/HL	abá	<i>father</i>	ába	<i>dad</i>
H/MF	bábá	<i>shoulder blade</i>	bābā	<i>father's sister</i>
H/HL	ságó	<i>village</i>	ságə	<i>bag, sack</i>

Table 2.13a Tonal contrasts on two syllable nouns

The following near minimal pair contrasts H and M.

Contrast	Lexeme	Meaning	Lexeme	Meaning
H/M	dálá	<i>drum (SP)</i> ¹³	dāyā	<i>drum (SP)</i> ¹⁴

Table 2.13b Tonal contrasts on two syllable nouns

2.5.4 Three syllable nouns

There are thirteen surface tonal patterns on three syllable nouns: LLL, LLH, LHL, LHM, LHH, MML, MMM, HLH, HML, HHL, HHM, HHH, and MMF. Setting MMF aside, the other tonal patterns represent twelve of the twenty seven possible patterns in a three tone system on three syllables, as shown in the table below.

¹³ This drum is placed in front of the musician and played with two sticks.

¹⁴ This drum is placed between the legs of the musician and played with the hands.

2 nd σ ↓	1 st σ → 3 rd σ ↓	L	M	H
L	L	LLL		
	M			
	H	LLH		HLH
M	L		MML	HML
	M		MMM	
	H			
H	L	LHL		HHL
	M	LHM		HHM
	H	LHH		HHH

Table 2.14 Tonal patterns on three syllable nouns

As with the two syllable nouns above, all patterns involving a half-step rise in tone are absent: LLM, LML, LMM, LMH, MLM, MMH, MHL, MHM, MHH, HLM, HMH. In addition the following four patterns don't occur: MLL, MLH, HLL, HMM. Minimal pairs don't exist for the different tonal patterns, but examples of each pattern are given below.

Pattern	Lexeme	Meaning	Pattern	Lexeme	Meaning
LLL	adəgəm	<i>stork</i>	HLH	súguré	<i>hump (bw KA.)</i>
LLH	k'ak'amó	<i>ankle</i>	HML	gánāre	<i>catfish (SP)</i>
LHL	ambórtʃ'i	<i>plant (SP)</i>	HHL	síngámdə	<i>dunce</i>
LHM	kabórkā	<i>wild cucumber</i>	HHM	dúgúlū	<i>thigh</i>
LHH	k'lemámó	<i>wasp (SP)</i>	HHH	sórmálé	<i>spear (SP)</i>
MML	lāmāđə	<i>ant (SP)</i>	MMF	māts'ēfū	<i>ant</i>
MMM	māgwāyā	<i>frontier, boundary</i>			

Table 2.15 Tones on three syllable nouns

2.5.5 One syllable verbs

H, M, L, and F can occur on one syllable verbs. Tonal contrasts that occur in the data are given in the following table.

Contrast	Lexeme	Meaning	Lexeme	Meaning
L/M	bi	<i>be healed</i>	bī	<i>have a hole</i>
L/M	ɗa	<i>draw (water)</i>	ɗā	<i>lie dwell</i>
L/M	la	<i>kill</i>	lā	<i>write</i>
L/H	ka	<i>find</i>	ká	<i>hold</i>
L/H	sam	<i>love</i>	sám	<i>touch</i>
L/H	ʃi	<i>forge</i>	ʃí	<i>pour</i>
M/H	fē	<i>fight</i>	fé	<i>call</i>
M/H	sī	<i>take</i>	sí	<i>pull</i>
M/H	yā	<i>become</i>	yá (gə)	<i>want</i>

Table 2.16 Tonal contrasts on one syllable verbs

There are only a handful of one syllable verbs with F tone. All but one have closed syllables

(e.g. *hâm* ‘swear’, *ngêy* ‘learn’, *hyû* ‘be skinny’)

2.5.6 Two syllable verbs

The tonal patterns on two syllable verbs are the same as those that occur on two syllable nouns

except that H is absent: L, ML, HL, M, HM, LH, MF.

1 st $\sigma \rightarrow$	L	M	H
2 nd $\sigma \downarrow$			
L	LL	ML	HL
M		MM	HM
H	LH		

Table 2.17 Tonal patterns on two syllable verbs

There are only a handful of minimal pairs, most of which contrast HM with other tonal patterns.

When relevant, I include the locative particle with which the verb most commonly occurs.

Contrast	Lexeme	Meaning	Lexeme	Meaning
L/HM	karan gə	<i>(un)load (a burden)</i>	kārān gə	<i>stretch out (legs)</i>
M/HM	bīā (ho)	<i>swim</i>	bīā (he)	<i>attend</i>
ML/HM	sīa (he)	<i>tilt</i>	sīā	<i>sprinkle</i>

Contrast	Lexeme	Meaning	Lexeme	Meaning
LH/HM	fasó	<i>fán</i>	fásē (ho)	<i>pack</i>
LH/HM	kadó	<i>follow</i>	kádē (ho)	<i>bail out</i>
ML/LH	lāba	<i>crush, pound</i>	laḃá	<i>fell (a tree)</i>
ML/LH	lāgə	<i>nourish</i>	lagó	<i>transport</i>

Table 2.18 Tonal contrasts on two syllable verbs

There is only one word with a MF pattern: sēyġə ‘be quiet’.

2.5.7 Grammatical tone

The tone of grammatical items is discussed in the relevant sections of the grammar. Here I highlight a few particular cases of grammatical tone.

2.5.7.1 Aspect/mode coding on subject markers

As described in chapter 13, aspectual/modal coding is (generally) affixed to the subject markers. In a few cases, however, the only distinction between one aspect or another is the tone that occurs on the subject marker. This is the case, for instance, for the 3SG:M completive aspect subject marker (*ā* (3SG:M:PRF)), realized with M tone, and the 3SG:M neutral aspect subject marker (*a* (NEUT:3SG:M)), realized with L tone. This can be seen in the next two examples. In both instances, the subject marker is preceded and followed by H tone words (the determiner *só* before the subject marker, and the verb *són* ‘know’ afterward). Perceptually the drop in tone for the neutral aspect subject marker is greater than for the completive aspect subject marker.

- (2) katána n-gə-n só **ā** són
 younger.sibling MOD:M-POSS-3SG:M DET:M 3SG:M:CMPL know
His younger brother knew

- (3) *katána* *n-gə-n* *só* **a** *sén* *gí* ...
 younger.sibling MOD:M-POSS-3SG:M DET:M NEUT:3SG:M know COMP
His younger brother knows that ...

As noted above, Tourneux (2000a:113) only recognizes H and L one for the Kotoko languages.

As such, Tourneux (2009a:152) marks the 3SG:M completive aspect subject marker with L tone, making it tonally (and segmentally) identical to the 3SG:M neutral aspect subject marker.¹⁵

2.5.7.2 Tonal realization of locative particles

Mahamat (2005:191-194) posits two tonal categories for the tonal realization of the locative particles. The particles *he*, *yo* and *ni* are analyzed as H tone underlying, being realized H after L tone verbs, and L after H tone verbs. He doesn't explain why he posits an underlying H tone for these particles (as opposed to L). Given his data, positing polar tone would seem to be a straightforward analysis. The particle *ho* is analyzed as toneless underlying, being realized with the same tone as the preceding verb. He does not address the tonal realization of the locative particles when arguments occur between the verb and the particle. In my data the tonal realization of the locative particles *ho*, *yo*, *ni*, and *he* (whose functions are described in chapter 16) varies depending upon the immediately preceding and following tonal context. Since the particles occur at or toward the end of the clause in which they occur, it is likely that their tonal realization interacts with clause final (falling) intonation, resulting in the variation described below.

¹⁵ What I am calling the neutral aspect forms are glossed as imperfective by Tourneux (2009a:153). What I call incomplete forms are glossed as progressive by Tourneux (2009b:227).

The particle *ho* is realized L in all contexts except when directly preceded by a H tone verb. In which case it is realized M. I leave it unmarked in all cases.

The tonal behavior of the particles *yo* and *ni* is quite complex. Following L or M tone, they are realized F clause finally. Following a H tone they are realized L clause finally.¹⁶ When followed by a L tone (e.g. when the negative marker *wa* follows), they are realized H regardless of the preceding tonal context. When followed by a H tone (e.g. when the tag question marker *wá* follows), they are H with a L or M tone preceding, but M with a H tone preceding. In examples, I mark the tone of the particles *yo* and *ni* as they occur in the context in which they appear. I have summarized the tonal behavior of *yo* and *ni* in the following table. The table is read as follows. The first column indicates the tonal context to the left of the particle. the first row indicates the tonal context to the right of the particle (with # indicating that the particle occurs clause finally). The remaining (ungreyed) cells indicate the tonal behavior of the particles in the given tonal contexts.

	#	NEG (L)	TAG (H)
L	F	H	H
M	F	H	H
H	L	H	M

Table 2.19 Tonal realization of locative particles *yo* and *ni*

The tonal behavior of the particle *he* is identical to that of *yo* and *ni* just presented except in one environment. When the preceding L tone is on the verb (as opposed to a verb phrase argument), the

¹⁶ Exceptionally, the locative particle *yó* is realized M after the H tone verbs *fi* ‘pour’ and *há* ‘put (forcefully)’. I’m not sure why at this point.

particle *he* is realized L. I'm not sure why this is so. In examples, I mark the tone of the particle *he* as it occurs in the context in which it appears.

2.5.7.3 Preposition *gə*

The preposition *gə* is realized with L tone with a following object. If, however, the object of the preposition is fronted, then the preposition has its 'intransitive' form *gó*, generally realized with H tone.

I discuss the functions of the preposition *gə* in section 11.2.1.

2.5.7.4 Independent pronouns, direct and indirect object pronouns

The tonal realizations of the independent pronouns, direct object pronouns and indirect object pronouns are given in Appendix C, where I provide the forms of the different pronominal paradigms.

2.6 Summary

There are twenty seven consonants in Makary Kotoko. These include a series of prenasalized stops. The velar nasal [ŋ] is an allophone of /n/, occurring syllable finally and as a syllabic nasal word initially in nouns. Only sonorants occur in syllable coda position. There are six vowels in the language.

I provided evidence that schwa is unpredictable word initially, medially, and finally. Makary Kotoko allows for vowels to occur in syllable initial position, and also allows for non-nasal sonorants as the second consonant in syllable initial clusters. I noted a vowel fronting effect and a vowel rounding effect produced by palatal consonants and labial consonants, respectively. For a small number of words, I noted the palatalization of a preceding velar consonant by a high front vowel.

I noted five tones that occur on syllables: L, M, H, F, R. F tone only occurred word finally, in either open or closed syllables. In words of more than one syllable, F tone is only preceded by M tone. Tone functions both lexically and grammatically in the language though the functional load of tone is not heavy. I found no evidence for tone being affected by contiguous consonants, the quality of the vowel on which the tone is realized, or the structure of the syllable in which the tone occurs. I provided evidence for recognizing a M tone in Makary Kotoko and presented the tonal contrasts that occur in the data for nouns and verbs. I noted that tone is used grammatically to contrast between different aspectual/modal codings. I also presented the complex pattern of realization of the tones of the locative particles.

3 Allomorphy

In this section I bring together a number of the different instances of allomorphy that occur in Makary Kotoko. Most of these are phonologically conditioned. These include: (i) the variant forms of the feminine modifying marker *ro* (MOD:F), (ii) the assimilatory effects of the locative particles *he* and *ho* on preceding consonants and vowels (in certain structures), (iii) the fronting effect of a word initial palatal glide on a preceding schwa (as seen with the locative particle *yo*, the plural definite determiner *yó*, and the adverb *yô* ‘already’), (iv) the assimilation of the labio-velar glide of the negative marker *wa*, the tag question marker *wá*, and the interrogative marker *wó* by preceding high vowels and sonorants, and (v) an /n/ → [r] alternation word finally before a suffix beginning with a vowel. In addition, there are a handful of nouns that have distinct forms under modification. This appears to be functionally conditioned allomorphy.

3.1 Feminine modifying marker preceding the possessive determiners

The proposed underlying forms of the possessive determiners when modifying a feminine head noun are given in the second column of the following table. As described in section 6.1.1, these are composed of the feminine modifying marker *ro* (MOD:F), the possessive marker *gə*, and the person/number/gender marker of the possessor. In a few cases (particularly the forms for the second person) there appears to be some fusion between the possessive marker and the person/number/gender marker of the possessor. In the third column I give the phonetic realization of the forms.

Person	Possessive determiner (F)	Phonetic form	Meaning
1SG	rogu	[rògù]	<i>my</i>
2SG:M	rongó	[ròŋgó]	<i>your (M)</i>
2SG:F	róm	[róm]	<i>your (F)</i>
3SG:M	rogə̀n	[rògə̀ŋ]	<i>his</i>
3SG:F	rogádə̀	[rgádə̀]	<i>her</i>
1PL:INCL	rogámó	[rgámò]	<i>our (INCL)</i>
1PL:EXCL	rogóne	[rgónè]	<i>our (EXCL)</i>
2PL	rón	[róŋ]	<i>your (PL)</i>
3PL	rogádan	[rgádàŋ] / [rgâŋ]	<i>their</i>

Table 3.1 Feminine form of possessive determiners

The ‘Phonetic form’ column shows two realizations of the feminine modifying marker.

(i) The form [ro] when the possessive marker *gə̀* and the following person/number/gender marker of the possessor constitute a single syllable. This is the case for the first person singular form, the second person forms, and the third person singular masculine form.

(1) d́ da n-ò la ĺ ro-g-u d́

[lórògù]

3SG:F:IND CONTR 3SG:F-CMPL kill child MOD:F-POSS-1SG DET:F

She’s the one that killed my daughter

(ii) The form [r] is used when the possessive marker *gə̀* and the following person/number/gender marker of the possessor constitute two syllables. This is the case for the third person singular feminine form, the first person plural forms, and third person plural form.

(2) n-ò sī ĺ ro-ǵ-də̀ d́ n-ò f̄ nî

[lórɡádə̀]

3SG:F-CMPL take child MOD:F-POSS-3SG:F DET:F 3SG:F-CMPL run L.P.

She took her daughter and ran away

3.4 Devoicing by the locative particles *he/ho*

For a few verbs of structure $C_1aC_2\emptyset$, where C_2 is a voiced stop, the final consonant is devoiced when directly followed by the locative particles *he* or *ho*, and the final vowel of the root is replaced by the vowel of the locative particle (cf. (1)-(4) below). When C_2 is voiceless, no devoicing can occur, but the final vowel of the root is still replaced by the vowel of the locative particle (cf. (5), (6)). The reason why the final vowel is deleted in these cases instead of being assimilated to the vowel of the locative particle (as it was for the process described in section 3.3 immediately above) is still unclear to me.

The handful of verbs in the corpus that undergo this process are given in the table below.

	Verb	form with <i>he</i>	form with <i>ho</i>	Meaning
(1)	ʃábu ²	[ʃápè]		<i>wash, wash off, erode</i>
(2)	kádǎ		[kátō]	<i>bale out (water)</i>
(3)	dágu /dagwǎ/	[dákwè]		<i>shake (a tree)</i>
(4)	ságu /ságwǎ/	[sákwè]		<i>shake (a bag (to pack down))</i>
(5)	fásǎ		[fásō]	<i>pack, stick to</i>
(6)	taǂǎ	[tàǂè]		<i>nail (sth.)</i>

Table 3.3 Devoicing by the locative particles *he/ho*

I have noted the same process in the corpus when either the 3SG:F indirect object pronoun *dǎ* or the reciprocal marker *maráǂǎ* (RECIP) is followed by *he* or *ho*. The voiced stop is devoiced and the (final) vowel of the word is replaced by the vowel of the locative particle, as shown below in the second line of interlinearization.

(9)	aro	m	só	gó-l	maráǂǎ ho
					[màrákò]
	CONJ	NEUT:1PL:INCL	enter	head-NMOD:F	RECIP L.P.

² As noted in section 2.4.2, there is a neutralization of /u/ and /ǎ/ after labial consonants word finally.

I don't gossip

Tag question marker *wá* after [e]

- (12) ló n-g-u kón da mé-g yā **me wá**
 [mèjá]
 child MOD:M-POSS-1SG 2SG:M:IND CONTR IRR-2SG become sultan TAG
My child, you're the one that will be sultan, eh?

Interrogative marker *wo* after [i]

- (13) kón da g-ō **sī wo**
 [sījò]
 2SG:M:IND CONTR 2SG-CMPL take POL
You're the one that took it?

Following a word ending in a sonorant (m, n, l, r, w, y), the glide assimilates to the preceding consonant which is realized slightly lengthened.

Negative marker *wa* after [r]

- (14) u bó gó u tágə **māsar wa**
 [māsà:r:à]
 NEUT:1SG can PREP NEUT:1SG eat corn NEG
I can't eat corn

Tag question marker *wá* after [l]

- (15) u mban kón **kál wá**
 [kál:á]
 NEUT:1SG wash 2SG:M:DO just TAG
I'll clean you right up, eh?

Interrogative marker *wo* after [m]

- (16) mé-g **ts'am wo**
 [ts'àm:ò]

IRR-2SG agree POL
Would you agree (to it)?

In all other environments (that is, after the non-front vowels (ə, a, u, o)), the underlying labial-velar glide appears.

Negative marker *wa* after [ə]

(17) hóngwó dó w-ō ka lə wa
 [lèwà]
 goat DET:F 1SG-CMPL find PRO NEG
I didn't find the goat

Tag question marker *wá* after [ə]

(18) wi-sə n-gé-mo só m-í la rə wá
 [rèwá]
 husband-LINK MOD:M-POSS-1PL:INCL DET:M IRR-3PL kill 3SG:M:DO TAG
Our husband, they'll kill him, won't they?

Interrogative marker *wo* after [a]

(19) g-ō lū a dáhara wo
 [dáhàràwò]
 2SG-CMPL come PREP far.regions POL
Have you come from afar?

3.7 Morpheme boundary /n/ → [r] alternation

Mahamat (2005) examines the coding of plurality of nouns in Makary Kotoko using the suffix /-e/. In his analysis, nouns ending in /n/ lose the final nasal (after having nasalized the preceding vowel) and [r] is inserted before the plural suffix (cf. 2005:29, 30, 33, 34, 129-131). The presence of [r] in this context “est probablement dû aux contraintes phonotactiques de la langue qui empêchent des voyelles contiguës” (is probably due to phonotactic constraints of the language which prevent contiguous vowels) (2005:34). He applies the same approach for verb roots that end in /n/ when the infinitive suffix

or the product nominalization (by my terms) is added (2005:75, 76). Regarding the formation of the infinitive, he states “si la consonne finale du verbe est η , elle disparaît après avoir provoqué la nasalisation de la voyelle qui la précède. Ce qui fait que l’adjonction du nominalisateur [i η] à la base verbale est suivie de l’insertion de **r** entre la voyelle nasalisée et le **i**.” (if the final consonant of the verb is η , it disappears after having caused the nasalization of the preceding vowel. As a result the addition of the nominalizer [i η] to the verbal base is followed by the insertion of **r** between the nasalized vowel and the **i**.) My analysis differs in that I identify a morpheme boundary /n/→[r] alternation which applies generally across the language whenever a word ending in /n/ is followed by a suffix beginning with a vowel. That is, if a morpheme beginning with a vowel is suffixed to a word ending with /n/, the nasal is realized [r] before the vowel. This is seen in three morphological processes in the language: (i) plural formation by suffixing /-e/ to the noun root, (ii) the formation of the infinitive by suffixing /-én/ to the verb root, and (iii) a product nominalization by suffixing /-i/ to the verb root. These processes are discussed more in chapter 5. As well, the alternation appears to be present in a couple of irregular 1PL:INCL and 2PL imperative forms.

Morphological process	Root	Meaning	Derived	Meaning
Plural formation /-e/	bəskon	<i>horse</i>	bəskórē	<i>horses</i>
Infinitive /-én/	sén	<i>know</i>	sərén	<i>(to) know</i>
Product nominalization /-i/	mban	<i>bathe</i>	mbāri	<i>bathing</i>

Irregular imperatives	mban	<i>bathe</i>	m mboro	<i>let's bathe</i>
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Table 3.4 /n/ → [r] alternation

3.8 Distinct lexical forms under modification

A small handful of (frequently occurring) nouns have distinct forms in particular contexts, generally under (certain types) of modification. This does not appear to be conditioned phonologically. I propose that this is functionally conditioned allomorphy.⁴ A summary of the root forms, their allomorphs, and the contexts in which the allomorphs occur is given in the following table. I discuss each of these in turn below.

Root form	Allomorph	Context	Meaning
wa	we	under certain types of modification	<i>thing:CONC:PL</i>
ga	ge	under certain types of modification	<i>mouth</i>
gōrəm	gōr	under modification with modifying marker <i>ro</i> (MOD:F)	<i>woman</i>
wi	wisə	under possession	<i>husband</i>
si	sio	under possession	<i>body</i>
fən	fəro	under possession	<i>hut</i>
we	wa	before locative particle <i>yo</i>	<i>neck</i>

Table 3.5 Functionally conditioned allomorphy

3.8.1 wa (*thing:CONC:PL*)

The term *wa* (*thing:CONC:PL*) is the suppletive plural of *ɕi* (*thing:CONC*). It is a highly frequent word in the corpus. It has the allomorph [wè] in three specific functional contexts. Firstly, it occurs as [wè] before the modifying marker *i* (NMOD:PL), which is used in the noun-noun construction (described

⁴ Haspelmath (2002:29-30) distinguishes three types of conditioning for allomorphy: (1) phonological conditioning (e.g. the conditions under which the English plural marker /-z/ is realized [-z], [-s], or [-əz]); (2) morphological conditioning (e.g. in Latin, ‘the ending of the first person singular indicative is *-o* in the present tense, *-m* in the imperfect tense and *-i* in the perfect tense’ (ibid:29)); and (3) lexical conditioning, where ‘the choice of the affix allomorphs is dependent on other properties of the base, for instance semantic properties ... or where the choice of allomorphs cannot be derived from any general rule’ (ibid:30). Given these three options, I believe that the case of allomorphy described in this section is of the morphological conditioning type, though perhaps a better term in this context is functionally conditioned allomorphy.

Allomorph [wè] before modifying marker and non-specific marker

- (23) wē fo n wa n si aro ...
 [wèŋsì]
 2PL:CMPL give:APPL 1SG:IO thing:CONC:PL MOD:PL NONSPEC:PL CONJ
(if) you give me something ...

In summary, the allomorph [wè] occurs: (i) before the modifying marker *i* (NMOD:PL), (ii) before the demonstrative determiner *nde yó* (DEM:PL DET:PL), and (iii) before the modifying marker *n* (MOD:PL), phonetically [ŋ]. If the allomorphy were phonologically conditioned, then the environments in which [we] occurs would be before [i, nd, ŋ].

The allomorph [wà] occurs in all other environments. I provide evidence below that the allomorphy is not phonologically conditioned, since [wà] can occur before [i] (and [j]) and [nd] in the corpus.

Allomorph [wà] before the third person plural neutral form *i*

- (24) wa i nká-ŋi si gó-də
 [wàì]
 thing:CONC:PL NEUT:3PL PL-pour REFL PREP-3SG:F
Bodily fluids leaked from her body

Allomorph [wà] before the plural determiner *yó*

- (25) wa yó don da nde g-u a nk'êṃ fogó
 [wàjó]
 thing:CONC:PL DET:PL 1SG:IND CONTR be.at:PL PREP-1SG PREP handful all
I have the possessions in hand (figuratively)

Allomorph [wà] before the third person plural incomplete form *ndáy* (phonetically realized [ndéj]).

- (26) wa ndá-y fō gə-n gó skí
 [wàndéj]
 thing:CONC:PL INCMPL-3PL run PREP-3SG:M with blood
Bodily fluids and blood flowed from his body

Consider, as well, this next example. In this case, *wa* is modified by the quantifier *k'áǵí* ‘little, small’ which doesn’t require the presence of the modifying marker *n* (MOD:PL).

(27) sá ro g-ō lū
 day MOD:F 2SG-CMPL come
When you go

(b) aro ndá-y i ngó wa k'áǵí
 CONJ INCMPL-3PL take PREP:2SG:M thing:CONC:PL little
they would take a little money from you

3.8.2 *ga* ‘mouth’

The term *ga* ‘mouth’ is realized [gè] under possession.

Allomorph [gè] before modifying marker and possessiver determiner

(28) [ga n-gá-də]_{CS} nde [gó ro-gá-də dó]_{CC}
 [gèŋgádà]
 mouth MOD:PL-POSS-3SG:F be.at:PL head MOD:F-POSS-3SG:F DET:F
Her mouth was on (top of) her head

The word *ga* ‘mouth’ is the probable lexical source for the locative specifier *gē-i* ‘in front of, next to, by, at’ which is likely formed with the allomorph *ge* followed by the modifying marker *i* (NMOD:PL), but which has subsequently grammaticalized into expressing a locative function.

(29) mēgə yó i fá si gē-i ho-l-me
 people DET:PL NEUT:3PL gather REFL mouth-NMOD:PL house-NMOD:F-sultan
The people gathered in front of the sultanate

In all other environments *ga* is realized [gà], as shown in the next two examples.

man MOD:M 3SG:M:CMPL have pants NEG S.R. PRES woman
The man who doesn't wear pants is a woman

3.8.4 *wi* 'husband'

The term *wi* 'husband' is realized [wisə] (the tone of [sə] varies by context) when possessed.

The relevant paradigm is given in the following table. (Note that this is a polygamous society so plural possession of a husband is socially appropriate.)

Expression		Meaning
wi-sə husband-LINK	n-g-u MOD:M-POSS-1SG	<i>my husband</i>
wi-sə́ husband-LINK	m MOD:M-POSS:2SG:F	<i>your (SG) husband</i>
wi-sə́ husband-LINK	də 3SG:F	<i>her husband</i>
wi-sə́ husband-LINK	n-gə-mo MOD:M-POSS-1PL:INCL	<i>our (INCL) husband</i>
wi-sə́ husband-LINK	n-gə-ne MOD:M-POSS-1PL:EXCL	<i>our (EXCL) husband</i>
wi-sə́ husband-LINK	n MOD:M-POSS:2PL	<i>your (PL) husband</i>
wi-sə́ husband-LINK	dan 3PL	<i>their husband</i>

Table 3.6 Possessing a husband

For the 3SG:F and 3PL forms, the modifying marker *n* (MOD:M) and the possessive marker *gə* are absent. That is, for these two forms there appears to be no coding for possession (e.g. *wisə́ də* 'her husband' instead of the expected *wisə́ ngədə́*, and *wisə́ dan* 'their husband' instead of *wisə́ ngə́dan*).

3.8.5 *si* 'body'

The term *si* 'body' is realized [sìð] under possession.

Allomorph [sìò] before modifying marker and possessiver determiner

- (36) **sio** n-gə-n a lē
 body MOD:M-POSS-3SG:M NEUT:3SG:M be.well
He felt good inside

Allomorph [sì] unmodified

- (37) gó ro-gə-də dó mə-g dǎ gə **si** ho
 head MOD:F-POSS-3SG:F DET:F IRR-2SG put PREP body L.P.
Her head you'll put in your lap

3.8.6 fən 'hut'

Likewise, the term *fən* 'hut' is realized [fə̀rò] under possession.

Allomorph [fə̀rò] before modifying marker and possessiver determiner

- (38) ndá-l ji dágwī-e a gē-i **fə̀ro** **n-gə-də**
 INCMPL-3SG:F break fruit.pit-PL PREP mouth-NMOD:PL room MOD:M-POSS-3SG:F
She was cracking open fruit pits in front of her room

Allomorph [fən] before definite determiner

- (39) ā dó dǎ a **fən** só
 3SG:M:CMPL chase 3SG:F:DO PREP room DET:M
He chased her from the room

3.8.7 we 'neck'

The term *we* 'neck' is realized [wà] when followed by the locative particle *yo*.

Allomorph [wà] before the locative particle *yo*

- (40) ē le gə-də **we** **yó** bán
 [wajó]
 3PL:CMPL cut PREP-3SG:F neck L.P. IDEO
They beheaded her

Otherwise, it is realized [wè].

Allomorph [wè] unmodified

- (41) ndá-y sám dan gə **we**
 INCMPL:3PL feel 3PL:IO PREP neck
They would feel their necks

Allomorph [wè] unmodified, occurring as modifying noun in noun-noun construction

- (42) i gə dan gí mēy ʃārgū l **we**
 NEUT:3PL say 3PL:IO COMP people.of sickness NMOD:F neck
They told them they had a neck illness

Allomorph [wè] before modifying marker and possessive determiner

- (43) k'ani **we** **n-gə-n** só ā d̄ə gə sí dó
 CONJ neck MOD:M-POSS-3SG:M DET:M 3SG:M:CMPL put PREP tree DET:F
Then he put his neck up against the tree

3.9 Summary

In this section I have presented cases of allomorphy in the corpus. Some of these were phonologically conditioned. The variant forms [ro] or [r] of the feminine modifying marker *ro* (MOD:F) were conditioned by the syllabic structure of the following possessive determiner. It was also shown that this same marker assimilated to a preceding nasal. Assimilatory effects of the locative particles *he* and *ho* on preceding consonants and vowels within certain structures was described. I also made note of the fronting effect of the palatal glide of the locative particle *yo*, the plural definite determiner *yó*, and the adverb *yô* ‘already’ on a preceding schwa. In contrast, the labio-velar glide of the negative marker *wa*, the tag question marker *wá*, and the interrogative marker *wo* underwent assimilation to preceding high vowels and sonorants. A word final /n/ → [r] alternation before a suffix beginning with a vowel was noted in connection with three of the morphological processes of the language. Lastly, a handful of nouns were shown to have distinct forms under certain kinds of modification. I described this as

functionally conditioned allomorphy as there does not appear to be any phonological conditioning in these cases.

4 Word classes and grammatical markers

In this section, I present an overview of the major word classes, minor word classes, and grammatical markers of Makary Kotoko. The major word classes are nouns, verbs, adjectives, adverbs, and ideophones. Properties of nouns and verbs are discussed in some detail here as this is the only place in the grammar where all the information is presented together. At the same time this serves as an overview of certain aspects of the grammar which will hopefully help orient the reader to both the brief presentation of the minor word classes and grammatical markers discussed further below, as well as to subsequent chapters. For adjectives, adverbs, and ideophones, their properties are addressed in more detail in particular sections of the grammar so I provide a summary here and refer the reader to the relevant sections. The minor word classes and grammatical markers (prepositions, locative specifiers, numerals, quantifiers, demonstratives, determiners, pronouns, reflexive and reciprocal markers, subject markers, aspect/mode markers, modifying markers, non-specific marker, copulas, locative particles, sequential markers, subordinators, complementizer, negative marker, interrogative markers, and pragmatic markers) are also presented summarily here, and addressed in greater detail at different points within the description of the grammar.

4.1 Major word classes

The major word classes are those which consist of an (apparently) open-ended number of members.

4.1.1 Nouns

Nouns have inherent gender and can be coded for number. Gender is not coded on the noun itself but in the form of certain grammatical markers that can co-occur with the nouns. Number is coded on the nouns (generally via the plural suffix /-e/) and in the form of grammatical markers and adjectives that occur in modifying the nouns. Noun plurality is addressed in section 5.1. There is a basic three-way gender/number distinction that is made: masculine singular, feminine singular, and plural. In some cases masculine singular and plural are coded with the same marker. Gender/number coding occurs on the definite determiners, which have three possible forms: *só* (DET:M), *dó* (DET:F), and *yó* (DET:PL). The function of the definite determiners is addressed in section 6.1.7.

Gender/Number	Example	Gloss
M	blō só	<i>the man</i>
M	fən só	<i>the hut</i>
F	gārəm dó	<i>the woman</i>
F	ambó dó	<i>the long flute</i>
PL	amé yó	<i>the water</i>
PL	ga yó	<i>the mouth</i>

Table 4.1 Definite determiners

Gender/number of nouns is coded in the form of the nominal demonstratives and local adverbial demonstratives as well. More information on the form and functions of the demonstratives is given in section 6.1.6 (for nominal demonstratives) and chapter 12 (for local adverbial demonstratives).

Gender/number is also coded on a marker which occurs between two nouns when the second functions as a modifier of the first. I call this the noun-noun construction. Details of this construction are given in

section 6.2. The forms of the intervening markers are: *sə* (NMOD:M), *l* (NMOD:F), and *i* (NMOD:PL). This is illustrated below.

Noun-noun construction			Meaning
skó field	sə NMOD:M	kən bean	<i>bean field</i>
ūda limit	l NMOD:F	wo village	<i>edge of town</i>
amefú gruel	i NMOD:PL	ēni milk	<i>milk gruel</i>

Table 4.2 Noun-noun construction

This construction also gives evidence for a lexical category of nouns by the fact that only words from this category (and independent pronouns) can fill the slots of head noun and modifying noun.

If a noun is modified by a possessive determiner, an adjective (in some cases), a non-specific marker, a prepositional phrase, or a relative clause, the modifying element is introduced by a marker which codes the gender/number of the head noun. In this case, the language only distinguishes between a feminine head noun: (*ro* (MOD:F)), and a non-feminine head noun (covering masculine and plural nouns): (*n* (MOD:M/PL)). I provide examples of each type of modification in the table below. Noun modification is addressed in chapter 6.

Example		Gloss	Modification type
hóngw-é goat-PL	n-g-u MOD:PL-POSS-1SG	<i>my goats</i>	<i>possessive determiner</i>
ngō place	ro sólám MOD:F black	<i>black spot</i>	<i>adjective</i>
blō man	n si MOD:M NONSPEC:M	<i>some/a man</i>	<i>non-specific marker</i>

Example	Gloss	Modification type
wo ro gó me village MOD:F with sultan	<i>a village with a sultan</i>	<i>prepositional phrase</i>
nyi [ro m-ú gə to] _{RC} thing:ABSTR MOD:F IRR-1SG say 2SG:F:IO	<i>what I would say to you</i>	<i>relative clause</i>

Table 4.3 Noun modification

Additional evidence for a class of nouns is the fact that the diminutive suffix *-ó* only occurs on this class of words: *lam* ‘river’ → *lámó* ‘small river’. The diminutive suffix, which only occurs on a small set of nouns, is addressed in section 5.2.

Additional evidence for a lexical category of nouns comes from the fact that words from this class can be the possessee or the possessor in the possessive construction. More details about this are given in section 6.1.1. In this next example *sam* ‘ram’ is the possessee and *me* ‘sultan’ is the possessor.

- (1) **sam** n-gə **me** só
ram MOD:M-POSS sultan DET:M
The ram of the sultan

Evidence for the lexical category of nouns also comes from the realm of non-verbal predication. This type of predication is addressed in chapter 21. Here, I briefly present the evidence for the lexical category of nouns that can be drawn from non-verbal predications. Makary Kotoko has a construction which I have named the juxtaposition construction. Two elements are juxtaposed, forming a clause. I call the first element the subject (specifically the verbless clause subject (_{VCS})) and the second element the complement (specifically the verbless clause complement (_{VCC})). Only nouns (accompanied by any modifiers) can occur as VCS. Nouns, adjectives, and adverbs can serve as VCC.

- (2) [yá ro-gé-ne dó]_{VCS} [mudán]_{VCC}
 mother MOD:F-POSS-1PL:EXCL DET:F cannibal
My mother is a cannibal

Similarly, Makary Kotoko has another non-verbal predication construction which I have named the presentational copula construction. The invariant copula *ndó* (PRES) occurs between two elements, forming a clause. I call the first element the copula subject (_{CS}) and the second element the copula complement (_{CC}). Only nouns (accompanied by any modifiers) can occur as CS or CC.

- (3) [mā dó]_{CS} ndó [māwda]_{CC}
 woman DET:F PRES monster
The woman was a monster

Likewise, there is another non-verbal predication construction which I have named the comitative copula construction. The comitative preposition *gó* 'with' functions as a copula in this case, occurring between two elements, the whole forming a clause. As above, only nouns (accompanied by any modifiers) can occur as CS or CC.

- (4) [abá n-gé-dan]_{CS} gó [nəmân kádágó]_{CC}
 father MOD:M-POSS-3PL with money a.lot
His father had a lot of money

Another non-verbal predication construction, the locative copula construction, has a copula which is sensitive to the gender/number of the referent of the copula subject. In this construction only nouns (accompanied by any modifiers) can occur as CS. Nouns (and prepositional arguments) can

function as CC. Since the copula is gender/number sensitive, the CS need not occur, being understood from context. More details on this construction are given in section 21.4.

- (5) [abá só]_{CS} nda [skó]_{CC}
 father DET:M be.at:M field
His father was in the fields

Verbal predication also provides additional evidence for the lexical category of nouns, as nouns can function as arguments within verbal predication. For instance, the indirect object of a verb can be a noun. This is seen in line (b) of the next example. The understood direct object (*hóngwó* ‘goat’) is given in the non-verbal clause in the first line.

- (6) [madí da]_{CS} gó [hóngwó ro-gá-də]_{CC}
 death CONTR with goat MOD:F-POSS-3SG:F
Death had a goat

- (b) gí yá-y la yá ro-gá-dan do sārga
 COMP VOL-3PL kill mother MOD:F-POSS-3PL as sacrifice
that they were going to sacrifice in honour of Death's mother

Nouns can also function as the direct object argument in verbal predication. This is illustrated in the next two examples with the object of an ambitransitive verb in example (7) and the object of a prepositional verb in example (8). The different subclasses of verbs is discussed in chapter 17.

Object of ambitransitive verb

- (7) n-ō sī sāw dó
 3SG:F-CMPL take stick DET:F
She took the stick

Object of prepositional verb

- (8) yá gə **plá**
 IMP:2SG:want PREP butter
Get some butter

The expression of location can also be realized by a noun. In the following example, I have square bracketed and subscripted the direct object and the expression of location. The relative order of constituents within the verb phrase is discussed in chapter 19.

- (9) ā fé [gərəm ro-ngó]_{DO} [**fən** só]_{Loc}
 3SG:M:CMPL call woman MOD:F-POSS:2SG:M hut DET:M
He called your wife (into) the hut

Additional evidence for the lexical category of nouns is that they can function as the argument of the prepositions of the language. I provide an example below. Prepositions are discussed in chapter 11.

- (10) ā lū a **lāla**
 3SG:M:CMPL come PREP field
He came from the field

The one argument type which I have not mentioned is that of subject of verbal predication. In fact, nouns do not function as subject of verbal predication. The subject of verbal predication is indicated by a marker which codes for the person, number, and gender (for 3SG) of the referent of the subject, as well as the aspect/mode of the clause. This is addressed in more detail in the next section in which I present the properties of verbs.

4.1.2 Verbs

Verbs can be marked for plurality like nouns. For nouns the plural marker is a suffix (/e/). For verbs, it is a prefix (/n'-/). Verb plurality (called pluractionality) is addressed in section 14.3. Some verbs can also take a causative marker /-l/. This is addressed in section 14.2. The following table provides a few examples of this process. The words in parentheses are locative particles which contribute spatial orientation information for the clauses in which they occur.

Root	Meaning	Derivation	Meaning
bō (ho)	<i>germinate, be discovered</i>	bōl (ho)	<i>discover</i>
k'wājī	<i>be full</i>	k'wājīl	<i>fill</i>
sō (he)	<i>arrive</i>	sōl (he)	<i>welcome</i>
wi	<i>be lost</i>	wil	<i>lose, get rid of</i>

Table 4.4 Causative

A small group of verbs can take an applicative marker (generally the replacement of the final root vowel with [a]). This process is addressed in section 14.1. The examples below provide illustration of this process.

Root	Meaning	Derivation	Meaning
fī	<i>give</i>	fo	<i>give (to/at)</i>
hōn	<i>do, make</i>	ha	<i>do, make (for/at)</i>
sē	<i>prepare (food)</i>	sa	<i>prepare (food) (for/at)</i>
wē	<i>give birth to</i>	wa	<i>give birth to (for/at)</i>

Table 4.5 Applicative

In addition, there are two nominalization processes that only apply to this word class. The first is what I have called the infinitive. It forms an action nominalization through suffixing /-n/ to the verb root. This is described in section 5.3. The table below provides illustration of this process.

Root	Infinitive	Gloss
fé	fén	<i>call</i>
bāts'ə	bats'én	<i>pluck</i>
sén	sərén	<i>know</i>
tʃ'am	tʃ'amén	<i>send s.o. to do sth</i>

Table 4.6 Infinitive

The second nominalization process which only applies to this class of words is a product nominalization with the suffixing of *-i* to the verb root. This is described in section 5.4. The table below provides illustration of this process.

Verb	Gloss	Nominalization	Gloss
dō	<i>greet</i>	dī	<i>greeting</i>
wasé	<i>rub with ointment</i>	wāsi	<i>massage</i>
mban	<i>bathe</i>	mbāri	<i>bathing</i>
mādō	<i>die</i>	madí	<i>death</i>

Table 4.7 Product nominalization

Additional evidence for the word class of verbs comes from the fact that words from this class are (almost) always preceded by a subject marker which, in addition to coding for this grammatical relation, codes for person, number (and gender for 3SG), as well as providing aspectual/modal information pertaining to the situation described in the clause. Exceptions to this are 2SG imperative forms and the two nominalization processes just described. The functions of the aspect/mode coding on the subject markers is discussed in chapter 13. The following example provides illustration of the obligatory subject marker preceding the verb, where the noun phrase that is co-referential to the subject marker is grammatically optional (as indicated by the parentheses), but the subject marker must occur for the sentence to be grammatical.

- (11) (mā dó) n-ō lū
 woman DET:F 3SG:F-CMPL come
 The woman came

4.1.3 Adjectives

Like nouns, adjectives can be coded for plurality. Unlike nouns, however, adjectives do not have inherent gender. Furthermore, they do not code for the gender of the noun they modify. Adjectives can occur as modifiers within the noun phrase, as the complement in non-verbal predication, and as a complement in verbal predication as well. Adjectives are described in more detail in section 6.1.2.

4.1.4 Adverbs

Unlike adjectives which generally provide descriptive modification within the noun phrase, adverbs provide modification at the clause level. Temporal and epistemic adverbs usually occur clause initially. Manner adverbs generally occur clause finally. Like nouns and adjectives, some adverbs can occur as complements in non-verbal predication. Some adverbs can be reduplicated to code for intensity. As well, a small group of adverbs can function as intensifiers of other adverbs. Adverbs are described in more detail in chapter 10.

4.1.5 Ideophones

Ideophones are similar to manner adverbs with respect to function, but with certain unique properties. Some ideophones have exceptional onsets and codas. Reduplication of ideophones is a means of indicating the durativity of the action described in the clause. Ideophones can occur either clause finally or clause initially and generally express information about the manner in which the action of the

clause was carried out or the sound produced in carrying out the action. Ideophones are described in more detail in section 10.4.

4.2 Minor word classes and grammatical markers

The minor word classes and grammatical markers have a closed set of members. All of these are described in detail in different sections of the grammar, so I briefly introduce them here.

4.2.1 Prepositions

Prepositions can be divided into two types: (i) transitive prepositions, which are always followed by a noun phrase argument, and (ii) ambitransitive prepositions, which can or cannot be followed by a noun phrase argument. The ambitransitive prepositions have distinct forms when used intransitively or transitively. Prepositional phrases can function as nominal modifiers or as clause-level modifiers. Prepositions are described in more detail in chapter 11.

4.2.2 Locative specifiers

The locative specifiers are similar to prepositions that express spatial information. These function like prepositions with a following nominal argument. If their argument is pronominal, it precedes the locative specifier, and the locative specifier has a distinct nominal form. These are discussed along with prepositions in section 11.3.

4.2.3 Numerals and non-numeral quantifiers

Numerals and non-numeral quantifiers are discussed in chapter 7.

4.2.4 Demonstratives

The demonstratives are of two types: nominal demonstratives and local adverbial demonstratives. These are discussed in section 6.1.6 and chapter 12, respectively.

4.2.5 Determiners

The definite determiner codes the identifiability of the referent of the head noun. The gender/number of the referent is coded in the forms used: *só* (DET:M), *dó* (DET:F), and *yó* (DET:PL). The function of the definite determiner is addressed in section 6.1.7. Possessive determiners code possession of the referent of the head noun. These are presented in section 6.1.1.

4.2.6 Pronouns

There are five pronominal series: (i) independent pronouns, (ii) indirect object pronouns, (iii) direct object pronouns, (iv) prepositional pronouns, and (v) possessive pronouns. The forms are given in Appendix C. The non-human/locative pronoun *lə* (PRO) is discussed in chapter 15.

4.2.7 Reflexive and reciprocal markers

The reflexive marker *si* (REFL) and the reciprocal marker *marágə* (RECIP) are discussed in chapter 18.

4.2.8 Subject markers and aspect/mode markers

Mahamat (2005) analyzes the subject markers of Makary Kotoko as pronouns noting that “le pronom est une catégorie grammaticale de substitution capable de remplacer un nom ou un syntagme nominal tout entier” (the pronoun is a grammatical category of substitution that is capable of replacing a noun or an entire noun phrase) (2005:51). I explicitly state that the subject markers are not pronouns because they are obligatory elements of every verbal predication (except 2SG imperatives). They code

the person, number, and gender (for 3SG) of their referent. The aspect/mode markers are always affixed to the subject markers. As their name suggests, they code aspectual/modal information for the clause in which they occur. These are discussed in chapter 13.

4.2.9 Modifying markers

Modifying markers are used when a head noun is modified by another element. If the modifying element is itself a noun, then the markers used are: *sə* (NMOD:M), *l* (NMOD:F), and *i* (NMOD:PL). These agree in gender/number with the head noun. This was illustrated above in the discussion of nouns, and is described in more detail in section 6.2. If the modifying element is non-nominal (e.g. a possessive determiner, an adjective (in some cases), a non-specific marker, a prepositional phrase, or a relative clause), then the markers used are: *ro* (MOD:F) and *n* (MOD:M/PL). Again, this was illustrated in the discussion of nouns above, and is described in greater detail in section 6.1.

4.2.10 Non-specific marker

The non-specific marker codes the non-specificity of the referent of the head noun. The forms used are: *so* (NONSPEC:F) and *si* (NONSPEC:M/PL). They are discussed in section 6.1.3.

4.2.11 Copulas

Three of the four major non-verbal predication types make use of a copula: (i) the presentational copula construction (using *ndó* (PRES) as a copula), (ii) the comitative copula construction (using the transitive preposition *gó* ‘with’ as a copula), and (iii) the locative copula construction (using the gender/number sensitive copula *nda* ‘be at’). Non-verbal predication is discussed in chapter 21.

4.2.12 Locative particles

The locative particles provide spatial orientation information for the action of the clause in which they occur. There are four in all: *ho* (action toward the point of reference), *he* (action downward), *yo* (action away from the point of reference) and *ni* (required by four verbs of motion when no other expression of location occurs). These are described in chapter 16.

4.2.13 Sequential markers and subordinators

There are a number of markers which serve to link clauses and to indicate a relationship between the situations described in those clauses. I present these in chapter 29.

4.2.14 Complementizer

The marker *gí* is used to introduce (i) directly and indirectly reported speech, (ii) complement clauses, and (iii) adverbial clauses of reason. It is discussed in chapter 28 (relative to reported speech) and section 29.6 (relative to complement clauses and adverbial clauses of reason).

4.2.15 Negative marker

The clause final negative marker *wa* is presented in chapter 22.

4.2.16 Interrogative markers

The various interrogative markers (i.e., polar, tag, and content) are discussed in chapter 23.

4.2.17 Pragmatic markers

Makary Kotoko makes extensive use of placing a noun phrase in pre-subject position for pragmatic reasons. The pre-subject noun phrase can be unmarked or coded with a small set of markers which indicate the pragmatic function of the referent of the pre-subject noun phrase in the clause in which it occurs. These are discussed in chapter 26.

4.3 Summary

In this section, I have presented the major word classes, minor word classes and grammatical markers of Makary Kotoko. The major word classes identified were nouns, verbs, adjectives, adverbs, and ideophones. What distinguishes these from the minor word classes and grammatical markers is that they contain an open-ended number of members. There were a number of minor word classes and grammatical markers identified, each of which is described in more detail in the relevant sections of the grammar.

5 Noun morphology

In this chapter I present two categories of bound morphemes relevant to the lexical category of the noun: (i) those that occur on nouns, and (ii) those that form nouns from different lexical categories. For the first category, there are two morphemes to address: (a) the coding of plurality, generally with the suffix /-e/, and (b) the diminutive, marked with the suffix /-ó/, which only occurs on a handful of nouns in the lexicon. For the second category, there are three morphemes involved: (c) the infinitive suffix /-n/ which appears to be fully productive, forming an action nominalization from the corresponding verb, (d) the suffix /-i/ which only applies to about twenty verbs in the lexicon, and which forms a product nominalization, and (e) a fairly productive suffix /-sən/ which forms abstract nouns from nouns and adjectives. I address each of these processes in turn below.

5.1 Noun plurality

Nouns and adjectives can be marked for plurality. The coding of plurality on adjectives is dependent upon the plurality of the noun that the adjective modifies. I focus on the coding of plurality on nouns in this section. Adjectives follow the same patterns. The primary means of coding plurality is the addition of the suffix /-e/ to the noun root. In what follows, two issues are addressed: (i) the tonal realization of the plural suffix depending upon the tonal pattern of the noun root, and (ii) the effect that the marking of plurality has on the segments of the noun root. I address the tonal issue first.

5.1.1 Tonal realization of the plural suffix /-e/

Though exceptions exist, the plural suffix /-e/ is generally realized with L tone after a single syllable noun root, regardless of the tone of the root and regardless of the open/closed nature of the syllable. Note in (8) below that a F tone is realized H with the addition of the L tone plural suffix.

	Structure	Root	Plural	Gloss
(1)	1 σ open (H)	ʃá	ʃáe	<i>cow</i>
(2)	1 σ closed (H)	ʃán	ʃáre	<i>tooth</i>
(3)	1 σ open (M)	wō	wōe	<i>summit</i>
(4)	1 σ closed (M)	sāw	sāwe	<i>cane, walking stick</i>
(5)	1 σ open (L)	wo	woe	<i>village</i>
(6)	1 σ closed (L)	wom	wome	<i>canoe</i>
(7)	1 σ open (F)	klê	klê:	<i>bird (SP)</i>
(8)	1 σ closed (F)	dêy	déye	<i>pestle</i>

Table 5.1 Tonal realization of plural suffix on monosyllabic nouns

For two, three and four syllable words, the plural suffix is generally realized L after all tonal patterns except those that have a H tone at the end of the root. In those cases, the plural suffix is realized with H tone as well. Below I illustrate the tonal realization of the plural suffix after the different tonal patterns for two syllable noun roots. Three and four syllable nouns behave in the same fashion. The first two examples have H tone on the plural suffix since the noun root ends with a H tone.

	Structure	Root	Plural	Gloss
(9)	2 σ (H)	sémó	sémóé	<i>thorn tree (SP)</i>
(10)	2 σ (LH)	baʔá	baʔáé	<i>story</i>

Table 5.2a Tonal realization of plural suffix on disyllabic nouns

For all the rest, the plural suffix is realized with L tone. Note in (16) below that the F tone is realized H when the L tone plural suffix is added.

	Structure	Root	Plural	Gloss
(11)	2 σ (HM)	dódō	dódōe	<i>thorn</i>
(12)	2 σ (HL)	kátʃu	kátʃue	<i>catfish</i>
(13)	2 σ (M)	ʃārgū	ʃārgūe	<i>illness</i>
(14)	2 σ (ML)	dāɕʒi	dāɕʒie	<i>bow</i>
(15)	2 σ (L)	maʃi	maʃie	<i>hyena</i>
(16)	2 σ (LF)	salfū	salfūe	<i>tree (SP)</i>

Table 5.2b Tonal realization of plural suffix on disyllabic nouns

Though the tonal realization of the plural suffix generally follows the patterns described above, there are exceptions. I highlight three of them here. I noted above that the plural suffix is realized with L tone after single syllable noun roots. There are, however, a few single syllable words with H tone on the noun root which have a H tone plural suffix.

	Structure	Root	Plural	Gloss
(17)	1 σ (H)	ngrí	ngríé	<i>gazelle</i>
(18)	1 σ (H)	yá	yáé	<i>mother</i>

Table 5.3a Tonal realization of plural suffix – exception 1

I noted above that for two, three and four syllable words, the plural suffix is realized H after the tonal patterns that have a H tone at the end of the root. There are a few words, all borrowings from Kanuri, for which the plural suffix is realized L after a two syllable word with a LH tone pattern.

	Structure	Root	Plural	Gloss
(19)	2 σ (LH)	baló	balóe	<i>scar</i>
(20)	2 σ (LH)	kəndéy	kəndéye	<i>small woven basket</i>
(21)	2 σ (LH)	kəntó	kəntóe	<i>action</i>

Table 5.3b Tonal realization of plural suffix – exception 2

As well, for a small number of two syllable noun roots with either ML or L tone, the plural form has a LHM tonal realization as either a variant way for the tone to be realized (as in (22)- (24) below) or as the only way for the tone to be realized (as in (25)). These are generally words with a high frequency of use.

	Structure	Root	Plural	Gloss
(22)	2 σ (ML)	būnu	būnu / bunúē	<i>wall</i>
(23)	2 σ (ML)	tōlu	tōlue / tolúē	<i>road</i>
(24)	2 σ (L)	amts'o	amts'oe / amts'óē	<i>tamarind tree</i>
(25)	2 σ (L)	bəskon	bəskórē	<i>horse</i>

Table 5.3c Tonal realization of plural suffix – exception 3

5.1.2 Effect of the marking of plurality on the segments of the noun root

For most nouns, the addition of the plural suffix produces no segmental change to the noun root.

The plural suffix is simply affixed to the noun root, as shown in the following examples. In this table, I provide examples with the plural suffix after each of the six vowels of the language, and after the sonorants (the only consonants that occur in syllable coda position). Note that a word final /e/ is lengthened with the addition of the plural suffix, and a word final /ə/ is fronted to [i] before the plural suffix. Also, note the word final nasal /n/ is realized [r] before the plural suffix.

Word final segment	Root	Plural	Gloss
i	kémí	kémíé	<i>fellow-wife</i>
e	fəde	fəde:	<i>night</i>
ə	feysə	feys[i]e	<i>sekko screening in a doorway</i>
a	fəskā	fəskāe	<i>face</i>
u	aʃu	aʃue	<i>fan</i>
o	kámdó	kámdóé	<i>earthenware bowl</i>
r	k'áfār	k'áfāre	<i>leftovers</i>

Word final segment	Root	Plural	Gloss
l	dǎngǎl	dǎngǎlé	<i>small shelter</i>
w	káráw	káráwé	<i>bowl for burning incense</i>
y	kǎndéy	kǎndéye	<i>small woven basket</i>
m	kakǎm	kakǎmé	<i>paddle</i>
n	bǎskǎn	bǎskǎrē	<i>horse</i>

Table 5.4a Segmental realization of plural suffix

For nouns ending in a vowel, Mahamat's (2005) analysis varies significantly from mine. He proposes the insertion of a glide before the plural suffix. The palatal glide (y) would occur after front vowels (i, e) and central vowels (ə, a). The labial velar glide (w) would come after back vowels (u, o) (2005:30, 32, 139-140). The appearance of the high central vowel /ə/ at this point is somewhat curious since Mahamat proposes that it plays "un rôle purement épenthétique et permet tout simplement de séparer une séquence de deux phonèmes" ([plays] only an epenthetic role, simply separating a sequence of two phonemes) (2005:17). Presumably 'separating a sequence of two phonemes' means two *consonant* phonemes since why would an epenthetic vowel be needed between a root ending in a consonant and the plural suffix /-e/? This issue is not addressed by Mahamat. His examples (2005:31, 32) actually give support to my position of the phonemic status of /ə/ (cf. section 2.2.1). That aside, my analysis shows no glide insertion when a noun root ending in a vowel is followed by the plural suffix /-e/. As noted above, the one process which is in effect in that context is that a word final /ə/ is fronted to [i] before the plural suffix.

For a handful of nouns ending in a consonant (apparently of structure CVC) Mahamat (2005) notes a gemination of the final consonant before the plural suffix (2005:33, 144-145, 173-174). I would need to consult with a language consultant to verify this process.

For a significantly smaller number of noun roots, the final vowel of the root is replaced by the plural suffix. There is generally no change in the tone of the root. In this next table, I provide examples with the plural suffix replacing each of the six vowels of the language.

Word final vowel	Root	Plural	Gloss
i	háǀǀ	háǀǀǀ	<i>thief</i>
e	ángé	ángé	<i>crevice</i>
ə	ensá	ensé	<i>foot, leg</i>
a	mbálā	mbálē	<i>arm, wing</i>
u	gúlū	gúlē	<i>hunting net</i>
o	enǀó	enǀé	<i>egg</i>

Table 5.4b Segmental realization of plural suffix

It is unclear if there is a factor which would condition whether the final vowel of the root is maintained or replaced by the plural suffix. In fact, for about a dozen nouns (ending in either /ə/ or /o/) both forms are possible.

Word final vowel	Root	Plural	Gloss
ə	tédǀ	tédǀǀ / téd[ǀǀ]e	<i>moon</i>
ə	ságǀ	ságǀǀ / ság[ǀǀ]é	<i>village</i>
o	wóts'ǀ	wóts'ǀǀ / wóts'ǀǀé	<i>broom</i>
o	ǀawǀó	ǀawǀǀ / ǀawǀǀé	<i>blade (of grass)</i>

Table 5.4c Segmental realization of plural suffix

For a couple dozen nouns the vowel of the root is changed (generally to [a]) when the plural suffix is added. These can be divided into subgroups based on other idiosyncratic changes that the root undergoes. For those in the first table below the plural is formed by the change of the root vowel(s) to [a] and the addition of the plural suffix. For (4) and (5), the exceptional tonal change on ML and L two-syllable nouns described in the previous section applies.

	Root	Plural	Gloss
(1)	mḃāl	mḃāle	<i>root, muscle</i>
(2)	nām	nāme	<i>string; pl. rope, bowstring</i>
(3)	ḃāləm	ḃālame	<i>back</i>
(4)	wāləm	walámē	<i>pit, vertical hole</i>
(5)	wahən	wahárē	<i>wood, log, firewood</i>
(6)	ngwən	ngware	<i>stomach</i>

Table 5.5a Plurality marked through stem modification

In the next table, the plural is formed by the change of the root vowel to [a] and the replacement of the final vowel of the root by the plural suffix.

	Root	Plural	Gloss
(7)	sólgā	sálgē	<i>star, charm (fetish)</i>
(8)	k'olô	k'alê	<i>calabash</i>
(9)	ʃimé	ʃamé	<i>small, little</i>

Table 5.5b Plurality marked through stem modification

The nouns in the next table show variation on whether the plural is formed by the change of the root vowel(s) to [a] or not.

	Root	Plural	Gloss
(10)	gólǵēm	gólǵēme, gólǵāme	<i>lump (clay, mud)</i>
(11)	nk'êṃ	nk'ême, nk'áme	<i>handful</i>
(12)	dəngəlmo	dəngəlme, dangalme	<i>large, poorly</i>

Table 5.5c Plurality marked through stem modification

In these examples, the root vowel is consistently changed to [a] but there are other variations possible.

	Root	Plural	Gloss
(13)	gǎlk'ə (M)	gǎlk'e, galk'áē	<i>old</i>
(14)	gǎlk'a (F)	gǎlk'e, galk'áē	<i>old</i>
(15)	gōrēm	gārame, gāram	<i>woman, wife, female</i>

Table 5.5d Plurality marked through stem modification

For the nouns in this next table, in addition to the change of the vowel of the root to [a] the consonants of the plural form are weakly suppletive.

	Root	Plural	Gloss
(16)	dǎgwe	dǎngwe	<i>large clay jar</i>
(17)	ʃé	ʃáde	<i>hand</i>
(18)	hó	hádē	<i>house</i>
(19)	skó	skánye	<i>field</i>
(20)	skó	skwále	<i>cooking pot</i>

Table 5.5e Plurality marked through stem modification

When the vowels of the root are /u/, the inserted vowel is [o] instead of [a]. The plural forms also show evidence of weak suppletion.

	Root	Plural	Gloss
(21)	dúmū	dóngōme	<i>bull, ox</i>
(22)	dūgumi	dōngome	<i>long</i>

Table 5.5f Plurality marked through stem modification

For *me* (pl. *moe*) ‘chief, headman’, the vowel of the root changes to [o] without the presence of the high back vowel in the root. For *dāmo* (pl. *dāmo*) ‘big’ there is no plural suffix /-e/.

In addition to the above groups of nouns which form their plural forms by changing the vowel of the root (generally to [a]) and adding the plural suffix, another small group of nouns form their plural by partial reduplication of the root in addition to adding the plural suffix. The reduplicated portion appears to be the final consonant (or consonant cluster) of the root which then precedes the plural suffix. These are the only words in the lexicon that show this process.

Root	Plural	Gloss
ēndā	endándē	<i>intestine</i>
ēngu	ēngwángwe, engúngúē, ēngue	<i>excrement</i>
ārfu	ārfufúé, ārfue	<i>heart</i>
kələsə	kəlásásé, kələsásé, kəlās[ī]e	<i>carpet, rug</i>
gólēnsə	gólensánsē	<i>knee</i> (cf. <i>ensó</i> - foot, leg)

Table 5.6 Plurality marked through reduplication

There is also a small number of suppletive plural forms as shown in the following table.

Root	Plural	Gloss
ngō	nk ^l e	<i>place</i>
sá	nsê	<i>eye, day, sun</i>
ɕji	wa	<i>thing:CONC</i>
blō	mēgə	<i>man; people</i>
blōse	mēywe	<i>male</i>
msī	mēy	<i>man of; people of</i>

Table 5.7 Suppletive plural forms

About twenty nouns in the database are inherently plural. Most of them end in /e/, suggesting the presence of the plural marker. Two predominant semantic domains are liquids and body parts.

Root	Gloss
amé	<i>water</i>
kúre	<i>pee</i>
eníé	<i>saliva</i>
kōme	<i>nasal mucus, snot</i>
wahíe	<i>cereal, grain</i>
madare	<i>crotch (of tree)</i>
gwáne	<i>belongings</i>
fáskē	<i>feather</i>
wíé	<i>insect antenna</i>
ga	<i>mouth</i>
we	<i>nape of neck</i>
wúrwarē	<i>back of the throat</i>
ngúrē	<i>male sex organs</i>
đugusé	<i>kidney</i>
skále	<i>space between one's feet</i>
nsán	<i>sleep</i>
swáre	<i>dream</i>
bīe	<i>swimming</i>
gēre	<i>farming</i>

Table 5.8 Inherently plural nouns

5.2 Diminutive suffix

The diminutive suffix /-ó/ is unproductive, only applying to a handful of nouns. The addition of the diminutive suffix to the noun root creates a ‘smaller version’ of the referent of that noun. The derived forms have feminine gender (with one exception noted below). The suffix bears H tone and also has a tonal effect on the noun root, changing the tone of the final syllable of the root to H. There are no instances of the diminutive in the corpus. The fact that the diminutive is marked by a mid back vowel would be contrary to the “apparently universal iconic tendency in diminutives ... to contain high front vowels” (Payne 1997:110).

Root	Gloss	Diminutive	Gloss
lam	<i>river</i>	lámó	<i>small river</i> (M)
ngam	<i>wild cat</i>	ngámó	<i>'domestic' cat</i>
mdal	<i>waterhole</i>	mdáló	<i>small pool of water</i>
mts'u	<i>abscess</i>	mts'úó	<i>small abscess</i>
wələm	<i>hole</i>	wəlémó	<i>small hole</i>
karú	<i>room</i>	karúó	<i>small room</i>
góskār	<i>woven basket</i>	gósk(ó)ró	<i>small woven basket</i>
báří	<i>gourd</i>	bárió	<i>small gourd</i>

Table 5.9 Diminutives

Another possible instance of the diminutive is the pairing *mfó* 'rainy season millet', *mfóró* 'red millet'.

5.3 Infinitive /-n/

The infinitive functions as a noun, forming an action nominalization from the corresponding verb. The infinitive marker is generally realized as a suffix, and has two phonologically conditioned allomorphs: (i) the suffix /-n/ following verb roots that end in a vowel (producing a H tone on the final syllable of the verb root), and (ii) the suffix /-én/ following verb roots that end with a sonorant – the only consonants that can function as syllable coda in the language. Any other syllable in the verb root receives L tone.

The following table provides examples of one and two syllable verbs ending with an open syllable, with varying tones on the roots. Note that the infinitive is realized /-n/ in each case and the final syllable is marked with H tone. The other syllable (for two syllable verbs) is realized with L tone.

	Structure	Root	Infinitive	Gloss
(1)	1 σ (H)	fé	fén	<i>call</i>
(2)	1 σ (M)	ʧ ^l ā	ʧ ^l án	<i>laugh</i>
(3)	1 σ (L)	bo	bón	<i>have</i>

	Structure	Root	Infinitive	Gloss
(4)	2 σ (HL)	básə	basén	<i>reimburse, pay</i>
(5)	2 σ (HM)	sábə (gə)	sabén	<i>wait</i>
(6)	2 σ (M)	hāsə	hasén	<i>boil (intr.)</i>
(7)	2 σ (ML)	bāts'ə	bats'én	<i>pluck</i>
(8)	2 σ (LH)	kadé	kadén	<i>follow</i>
(9)	2 σ (L)	fədə	fədən	<i>shine (intr.)</i>

Table 5.10a Infinitives

In his presentation of the formation of what he calls the “*dérivation nominale déverbative*” (deverbal nominal derivation) (2005:36) through the addition of the suffix /-n/, Mahamat notes that monosyllabic verbs of structure CV have “un ton modulé sur le substantif dérivé” (a modulated [i.e., rising] tone on the derived noun form) (2005:36). In my analysis the tonal realization is consistently H on these verbs as seen in the preceding table.

The following table provides examples of one syllable verbs ending with a closed syllable, with varying tones on the roots. Note that the infinitive is realized /-én/ in each case. When the root ends with /n/, this becomes [r] before the infinitive marker. This is illustrated in examples (11), (13), and (15) of the table. Note also in (13) that, for this very frequent verb, there is an exceptional change in the quality of the vowel from the root form *hən* ‘do’ to the infinitive *harén*.

	Structure	Root	Infinitive	Gloss
(10)	1 σ (H)	ʃár (he)	ʃarén (he)	<i>repair</i>
(11)	1 σ (H)	sén	sərén	<i>know</i>
(12)	1 σ (M)	fəl	fəlén	<i>fly</i>
(13)	1 σ (M)	hən	harén	<i>do</i>

	Structure	Root	Infinitive	Gloss
(14)	1 σ (L)	tʃ'am	tʃ'amón	<i>send s.o. to do sth</i>
(15)	1 σ (F)	sûn	surún	<i>implore, beg</i>

Table 5.10b Infinitives

Two syllable verbs whose second syllable is closed are exceptional with respect to the position of the infinitive marker. There are in fact only a few native verbs with two syllables that end in a closed syllable. For these, the placement of the infinitive marker shows a degree of variation – occurring either before the first or the second syllable.

	Structure	Root	Infinitive	Gloss
(16)	2 σ (HL)	dógəm	dógəm / dóngəm	<i>taste</i>
(17)	2 σ (L)	karan (gə)	karán / kánra	<i>load/unload a burden</i>
(18)	2 σ (L)	haʃ'an (gə)	hántʃ'an	<i>shake</i>

Table 5.11 Infinitives - exceptions

Most two syllable verbs that end in a closed syllable are borrowed from Shoa Arabic. For these, the infinitive marker is always after the first syllable of the root. That is, the infinitive marker is an infix instead of a suffix. The syllable marked with the infinitive marker receives H tone, the other, L tone. It may be that speakers have interpreted the second syllable of borrowed verbs as separate from the verb root, and have therefore placed the infinitive marker on the first syllable. Perhaps this approach is being applied (somewhat sporadically) to the small number of native two-syllable verbs with a closed second syllable.

	Structure	Root	Infinitive	Gloss
(19)	2 σ (HL)	dábar (AR.)	dánbar	<i>manage</i>
(20)	2 σ (HL)	dáwal (AR.)	dánwal	<i>spend time</i>

(21)	2 σ (HL)	fákar (AR.)	fánkár	<i>think</i>
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Table 5.12 Infinitive on borrowings

Three syllable verbs also show variation with respect to the placement of the infinitive marker.

There are only about a half dozen three syllable verbs in the language. In none of these does the infinitive occur suffixed to the last syllable. It comes either after the first syllable (as in example (22)), after the second (as in example (23)) or after either (as in example (24)).

	Structure	Root	Infinitive	Gloss
(22)	3 σ (LF)	samasân	sánmasan	<i>be afraid</i>
(23)	3 σ (L)	k'əməsə	k'əmənsə	<i>be twisted</i>
(24)	3 σ (HL)	dégəsə	dəgənsə / dəngəsə	<i>remove grains from cob</i>

Table 5.13 Infinitive on three syllable verbs

The infinitive functions as a noun but retains some verbal properties. For instance, it can take an object argument. In this next example, the infinitive is part of the direct object of the verb *són* ‘know’ but has its own object *mts'al* ‘jump’.

- (1) don w-ō són **kó-n** **mts'al** n-gó só fogó
 1SG:IND 1SG-CMPL know put-INF jump MOD:M-POSS:2SG:M DET:M all
I know all your ways of jumping

The infinitive can take a reflexive particle as its object.

- (2) **ḅará-n** **si** só a fē gó də
 nourish-INF REFL DET:M NEUT:3SG:M fight with 3SG:F
She was having trouble finding food to eat
(lit. nourishing oneself fought with her)

The infinitive can take a locative complement as well.

- (3) a gay ro-gə **dó-n** **ni** dó i gə gí ...
 PREP first MOD:F-POSS go-INF L.P. CONJ NEUT:3PL say COMP
Before leaving, they said ...

Evidence that infinitives are nominal in nature comes from the fact that they have gender, generally masculine gender though there are cases where the infinitive has feminine gender, as in the following example. In this example the infinitive *lán* (kill:INF) has an object (*mēgə* ‘people’). The whole is modified by a possessive determiner. The modifying marker of the possessive determiner is feminine (*ro* (MOD:F)), indicating that what it modifies is of feminine gender. This cannot be the directly preceding noun (*mēgə* ‘people’) since it is a plural noun. The modifying marker gives evidence of the feminine gender of the infinitive. The subject marker of the clause further confirms that the infinitive is of feminine gender as it is in the 3SG:F form.

- (4) **lá-n** mēgə ro-gá-dan **n-ō** yā tóbār
 kill-INF people MOD:F-POSS-3PL 3SG:F-CMPL become thick
They killed many people
(lit. their killing of people became thick)

Additional evidence that infinitives behave like nouns is that they are modified by the same elements that nouns are modified by. In this next example, the infinitive is possessed and modified by a demonstrative. The form of the modifying marker and the demonstrative show that the infinitive is of masculine gender.

- (5) **sá-n** **tón** **n-g-u** **nda** **só** m-á hān féyda wa
 sit-INF ground MOD:M-POSS-1SG DEM:M DET:M IRR-3SG:M do usefulness NEG
There’s no point in going on living like this
(lit. This existence of mine won’t be useful)

As a noun, the infinitive can be modified by prepositional phrases and the definite determiner, as shown below. Prepositional phrases that function as nominal modifiers are introduced with the modifying markers (either *ro* (MOD:F) or *n* (MOD:M/PL)).

- (6) **sá-n** **he** **n** **a** **sāge** **só** **ā** **bōro** **də**
 inhabit-INF L.P. MOD:M PREP lake DET:M 3SG:M:CMPL be.enough 3SG:F:IO
She had had enough of dwelling in the lake

The infinitive can function as the modifying noun in the noun-noun construction. This construction is discussed in section 6.2.

- (7) **jóra** **sə** **tó-n** **rə** **hé** **só** **m-ú** **ka** **lə**
 solution NMOD:M return-INF 3SG:M:IO L.P. DET:M IRR-1SG find PRO
I'll find the way to make him go back

Like nouns, the infinitive can serve as an argument of the clause. In examples (4)-(6) above, the infinitive is co-referential with the subject marker of the clause. In the example below, it is the direct object of a transitive verb.

- (8) **damá** **maji** **ā** **ka** **lú-n** **ts'e** **wa**
 ADVERS hyena 3SG:M:CMPL find come-INF outside NEG
But hyena couldn't find a way out

The infinitive can function as the object of a preposition.

- (9) **alégā** **n-ō** **mādē** **kádágó** **a** **ngō-l** **lá-n** **dán** **só**
 crowd 3SG:F:CMPL die a.lot PREP place-NMOD:F beat-INF 3PL:DO DET:M
A lot of people died because of the beatings

The infinitive also functions like a noun in non-verbal predication. In the next example it is the (head of the) complement in the juxtaposition construction.

- (10) [ngō le má]_{VCS} [sá-n he n-gə kəmani]_{VCC}
 place what FOC inhabit-INF L.P. MOD:M-POSS god
God dwells everywhere
(lit. everywhere is God's dwelling place)

As noted in section 21.6.2, a single noun phrase (often possessed) can function as a complete proposition. The infinitive with its arguments and modifiers can function in the same way, quite often conveying locative or temporal information for the following clause.

- (11) lú-n ts'e n-gə-dan a wo dó
 come-INF outside MOD:M-POSS-3PL PREP village DET:F
Having left the village,
(lit. their coming out of the village)

- (b) k'ani ē k'ō gə dólá
 CONJ 3PL:CMPL catch PREP jackal
they found a jackal

The evidence provided clearly demonstrates that the infinitive functions as a noun within the clauses in which it occurs, yet retains some verbal properties. As seen in the examples above, the verbal properties of the infinitive (i.e., taking an object argument, a reflexive particle, or a locative particle) are situated closer to the verb than the elements which indicate that the infinitive has nominal properties (i.e., modification by a possessive determiner, a prepositional phrase, a demonstrative, a definite determiner, etc.).

5.4 Product nominalization suffix /-i/

The suffix /-i/ generally forms nouns which express the product of the action expressed by the verb. This occurs for about twenty verbs in the lexicon. For verbs ending in a vowel, the suffix replaces the final vowel. For two-syllable verbs, the most frequent tonal pattern of the derived noun is ML. The nominal form is almost always of feminine gender. The following table provides examples of one and two syllable verbs ending with an open syllable, with varying tones on the roots.

	Structure	Verb	Gloss	Nominalization	Gloss
(1)	1 σ (M)	d̄ə	<i>greet</i>	d̄i	<i>greeting</i>
(2)	2 σ (HL)	básə	<i>reimburse, pay</i>	bāsi	<i>payment</i>
(3)	2 σ (ML)	wālə	<i>give pain, hurt</i>	wāli	<i>pain</i>
(4)	2 σ (LH)	wasé	<i>rub with ointment</i>	wāsi	<i>massage</i>
(5)	2 σ (L)	tadə (ho)	<i>plow, churn up</i>	tādi	<i>hoeing</i>

Table 5.14a Product nominalizations

For verb roots that end in a sonorant, the nominalization marker is suffixed to the end of the verb root. There is a /n/ → [r] alternation for verb roots ending in /n/ (cf. (6) and (8) below). Example (6) also contains a change in the quality of the vowel from the root form *kwən* ‘grow’ to the nominalization *kwāri* ‘growth’. This is also the only derived form which has masculine gender.

	Structure	Verb	Gloss	Nominalization	Gloss
(6)	1 σ (M)	kwən	<i>grow</i>	kwāri (M)	<i>growth</i>
(7)	1 σ (L)	tʃ'am	<i>send s.o. to do sth</i>	tʃ'āmi	<i>commission</i>
(8)	1 σ (L)	m̄ban	<i>bathe</i>	m̄bāri	<i>bathing</i>
(9)	1 σ (F)	hām	<i>swear</i>	hāmi	<i>oath</i>

Table 5.14b Product nominalizations

The following example is the only instance within the corpus of the regularly formed nominalization. In

this case it functions as the direct object of the clause.

bāts'ə 'pluck' → *bāts'i* 'plucking, insult'

- (12) *ā* *so* *gə-n*
 3SG:M:CMPL insult PREP-3SG:M
He_i insulted him_k

- (b) *ɔ́amá* *m-á* *tá* *rə* ***bāts'i*** *dó* *wa*
 ADVERS IRR-3SG:M reply 3SG:M:IO insult DET:F NEG
but he_k won't insult him_i back

In addition to the regularly formed nominalizations described above, there is a group of verbs which take the /-i/ suffix, but the tonal patterns of the derived forms vary from the ML tone pattern discussed above.

	Structure	Verb	Gloss	Nominalization	Gloss
(10)	1 σ (M)	tʃ'ā	<i>laugh</i>	tʃ'eí (LH)	<i>laughter</i>
(11)	2 σ (M)	mādē	<i>die</i>	madí (LH)	<i>death</i>
(12)	2 σ (HL)	dáwò	<i>buy</i>	dówi / dwî (HL)	<i>sales</i>
(13)	2 σ (M)	gərjī	<i>be tired</i>	gərjī (HM)	<i>tiredness</i>

Table 5.15 Product nominalizations - exceptions

Interestingly, these 'irregular' forms are more frequent in the corpus. In this next example, the nominalization is the object of the prepositional element *gə ... he* 'near, by'.

mādē 'die' → *madí* 'death'

- (13) *ā* *yā* *kəskê* *gə* ***madí*** *he* *k'ani* ...
 3SG:M:CMPL become near PREP death L.P. CONJ
He was about to die, then ...

The nominalization is the object of the verb in the next two examples.

dówo ‘buy’ → *dówi* ‘sales’

- (14) **A:** wa he da i hōn **dówi** a Marte
 thing:CONC:PL what CONTR NEUT:3PL do sales PREP Marte
 “*What is selling at (the market of) Marte?*”

- (b) **B:** nāmdə l kən
 ash NMOD:F bean
 “*Bean ash*”

gārjī ‘be tired’ → *gārjī* ‘tiredness’

- (15) ē ka ngō gí i la **gārjī** aro ...
 3PL:CMPL find place COMP NEUT:3PL hit tiredness CONJ
They found a place to rest then

5.5 Abstract noun suffix /-sən/

Discussing the nominalizing suffix /-sən/, Mahamat (2005) notes that it applies to “une base adjectivale” (an adjectival base) (2005:38). In my corpus, it can also apply to nouns. The suffix /-sən/ is fairly productive, and forms an abstract noun relative to the concept expressed by the root. The exact nature of the abstract noun depends upon the meaning of the root. Nouns that take this suffix often refer to a person of a certain category (e.g. traditional healer, teacher, sultan, visitor, male). The derived form can convey the profession of that person (e.g. witchcraft, teaching, chieftaincy) or a notion related to a characteristic of that person (e.g. journey, genitals). Adjectives that take this suffix express such notions as dimension (e.g. big, little), age (e.g. old), value (e.g. good, bad), colour (e.g. white, red), physical properties (e.g. wide, narrow, unripe), and human propensities (e.g. crazy, stupid). The derived forms express those notions in nominal form. They are generally of masculine gender though a few are of feminine gender. Though exceptions exist (cf. examples (10) and (11) below), the addition of the suffix

/-sən/ generally modifies the tone of the root such that the final tone of the root will be realized with H tone (if it isn't already) before the suffix /-sən/, which is realized with L tone. The following table provides examples of this nominalization process that occur in the corpus.

	Root	Gloss	Nominalization	Gloss
(1)	gâw	<i>traditional healer, sorcerer</i>	gâwsən	<i>witchcraft</i>
(2)	gǝlk'ə	<i>old (man)</i>	gǝlk'əsən	<i>old age</i>
(3)	kamsó	<i>title for first lady in sultan's court</i>	kamsósən	<i>titling s.o. kàmsó</i>
(4)	kəskê	<i>near, easy</i>	kəskésən	<i>shortness, nearness</i>
(5)	lāmbal	<i>stupid, disgraceful, unworthy</i>	lambálsən	<i>stupidity</i>
(6)	mēywe	<i>men, male gender</i>	meywésən	<i>genitals, virility</i>
(7)	ʃimé	<i>little, a bit</i>	ʃimésən	<i>youth</i>
(8)	ɕǝgǝsǝ	<i>narrow, hard</i>	ɕǝgǝsǝsən	<i>hardness, harshness</i>
(9)	kógóná	<i>sexual vagabond</i>	kógónásən	<i>sexual vagabondage</i>
(10)	dāmo	<i>big</i>	dāmosən	<i>largeness, importance</i>
(11)	man* (me)	<i>(sultan)</i>	mansən	<i>chieftaincy</i>
(12)	hey* (háǝ)	<i>(thief)</i>	héysən	<i>theft</i>
(13)	mawa* (māwru)	<i>(visitor, guest)</i>	mawásən	<i>journey</i>

Table 5.16 Nominalizations with /-sən/

For examples (11) - (13), the expected root forms do not exist in the language. The derived forms possibly show an archaic form of the words in question. I have provided in parentheses a closely related word. Interestingly, the derived forms for these three words are among the most frequently occurring for this nominalization within the corpus.

The next two examples show the coding for gender for these nominalizations. In this next example, the subject marker is coded for feminine, indicating that the nominalization *mansən* 'chieftaincy' is feminine in gender.

- (16) aro **man-són** ndá-l ha rə bigô
 CONJ sultan-NOM INCMPL-3SG:F do:APPL 3SG:M:IO fine
Then the chieftancy would fine him

The nominalization *damosón* ‘largeness, importance’ is of masculine gender as can be seen by the form of the definite determiner which follows.

- (17) mo da **damo-són** só m sī
 1PL:INCL:IND CONTR big-NOM DET:M NEUT:1PL:INCL take
Let’s take authority (of the region)

Though there are no examples in the corpus, the nominalizations formed with /-sən/ can be pluralized. The tones of the nominalized forms are modified in some cases with the addition of the plural suffix, which is consistently L in these forms. Note the /n/ → [r] process with the addition of the plural suffix to the nominalization.

Nominalization	Plural form	Gloss
mansón	mansóre	<i>chieftancy</i>
mbinsón	mbinsóre	<i>goodness</i>
gáwsən	gáwsóre	<i>witchcraft</i>
héysən	héysóre	<i>theft</i>
mawásən	mawásóre	<i>journey</i>

Table 5.17 Pluralizing nominalizations with /-sən/

The next series of examples provide evidence for the nominal properties of the derived forms marked with /-sən/. Nominalizations with /-sən/ can be possessed, modified by a relative clause, and coded with the definite determiner, as shown in this next example.

- (18) **lambál-sən** n-gə-n [n
 stupid-NOM MOD:M-POSS-3SG:M MOD:M
His stupidity that
- (b) ā nen g-u wa]_{RC} só ...
 3SG:M:CMPL PL:please PREP-1SG NEG DET:M
doesn't please me ...

They can also be possessor, a property of nouns.

- (19) ā dǝ ngō ro-gə **man-sən**
 3SG:M:CMPL put place MOD:F-POSS sultan-NOM
He went before the traditional authority

Nominalizations with /-sən/ can function as the head noun in the noun-noun construction.

- (20) **bərbá-sən** l nəmân ngaba dó ndwa ngō-l nyi wa
 rich-NOM NMOD:F money white DET:F be.at:F place-NMOD:F thing:ABSTR NEG
Money isn't the real wealth

They can also function as the modifying noun in the noun-noun construction.

- (21) ā k'ō gə **kífa** l **malóm-sən**
 3SG:M:CMPL catch PREP work NMOD:F teacher-NOM
He began working as a (Koranic school) teacher

Nominalizations with /-sən/ can serve as an argument of the clause. In the next example it is co-referential to the subject marker of the clause.

- (22) **man-sən** ndá-l ha rə bigê
 sultan-NOM INCMPL-3SG:F do:APPL 3SG:M:IO fine
The traditional authority would fine him

It can also function as the direct object of the clause.

- (23) ló só da ē fo rə **man-sən** **dó**
 child DET:M CONTR 3PL:CMPL give:APPL 3SG:M:IO sultan-NOM DET:F
It was to the child that they gave the chieftaincy

It can function as the object of a prepositional verb as well. In this example, the object of the prepositional verb *yá gə* ‘want’ is in pre-subject position and coded with the contrastive focus marker *da*.

- (24) ā gə dan gí
 3SG:M:CMPL say 3PL:IO COMP
He told them

- (b) **man-sən** **dó** **da** a yá gó
 sultan-NOM DET:F CONTR NEUT:3SG:M want PREP
that it was the chieftaincy that he wanted

It can function as the object of a preposition, a property of nouns.

- (25) [nda só]_{VCS} [amsó [n abá n-gó-dan
 DEM:M DET:M word MOD:M father MOD:M-POSS-3PL
That was the advice his_i father_k

- (b) ā gə rə a **ʃimé-sən** **n-gə-n**_{RC}_{VCC}
 3SG:M:CMPL say 3SG:M:IO PREP small-NOM MOD:M-POSS-3SG:M
told him_i in his_i youth

Nominalizations with /-sən/ can also function as either subject or complement in non-verbal predications. In the next example the nominalization is the subject of the presentational copula construction.

- (26) [man-són da]_{CS} ndó [nəmân]_{CC}
 sultan-NOM CONTR PRES money
The chieftaincy is (all about) money

In the next example, the nominalization with /-sən/ is the complement in the juxtaposition construction.

- (27) [nyi ró]_{VCS} [gáw-sən]_{VCC} wo
 thing:ABSTR DEM:F sorcerer-NOM POL
Is this witchcraft?

In section 21.6.2, I describe how a single noun phrase (often possessed) can function as a complete proposition. This was illustrated for the infinitive forms in section 5.3 above as well. The nominalization with /-sən/ can also function in this way, providing scene setting information for the following clause.

- (28) blō pāl ā yā gə̀lk'ə a wo dó
 man one 3SG:M:CMPL become old:M PREP village DET:F
A man grew old at a village

- (b) gə̀lk'ə-sən n-gə-n só
 old-NOM MOD:M-POSS-3SG:M DET:M
His oldness,

- (c) adógēn dó ā yā kə̀skê gə madí he
 next DET:F 3SG:M:CMPL become near PREP death L.P.
then he drew near to death

5.6 Summary

In this section I have presented five suffixes relevant to the lexical category of noun. The first two occur on nouns, the last three form nouns from different lexical categories. I have described: (a) the coding of plurality on nouns, primarily through the suffix /-e/, (b) the diminutive suffix /-ó/, (c) the

infinitive marker /-n/, (d) the nominalizer /-i/, forming product nominalizations, and (e) the nominalizer /-sən/, forming abstract nouns from both nouns and adjectives.

6 Noun phrase

To modify a noun, Makary Kotoko formally makes a three way distinction; (i) if the modifying element is a possessive determiner, an adjective (in some cases), the non-specific marker, a prepositional phrase, a relative clause, a quantifier (in some cases) or a numeral (when the head noun is marked as definite) then a marker occurs between the head noun and the modifying element indicating the gender/number of the head noun (*ro* (MOD:F), *n* (MOD:M/PL)); (ii) if the modifying element is an adjective (in other cases), a quantifier (in some cases), a numeral (whose head noun is not marked as definite), a (nominal) demonstrative, or the definite determiner, then no marker occurs between the noun and the modifying element; (iii) if the modifying element is a noun, then a different marker occurs between the head noun and the modifying noun indicating the gender/number of the head noun (*sə* (NMOD:M), *l* (NMOD:F), *i* (NMOD:PL)). In the presentation below I present noun modification by elements other than a noun (covering (i) and (ii) above), followed by noun modification by a noun (addressing (iii) above).

6.1 Noun modification by an element other than a noun

To modify a noun by a possessive determiner, an adjective (in some cases), the non-specific marker, a prepositional phrase, or a relative clause, Makary Kotoko makes use of a modifying marker

which codes the gender/number of the head noun.¹ As with all noun modification, the head noun comes first. The basic structure is: **HEAD.NOUN MARKER MODIFYING.ELEMENT.**

If the head noun is masculine or plural, the modifying marker is *n* (MOD:M/PL). If the head noun is feminine, the modifying marker is *ro* (MOD:F). This, then, is an instance in the grammar of the language where the plural marker is not distinct from the masculine marker. As such, there is a feminine/non-feminine (i.e., masculine and plural combined) distinction made for this type of noun modification. The next three examples illustrate the use of the modifying marker with a masculine head noun, feminine head noun, and plural head noun, respectively.

Masculine head noun: modification by the non-specific marker

- (1) k'ani ē ka marágə gó **blō n si**
 CONJ 3PL:CMPL find RECIP with man MOD:M NONSPEC:M
Then they got together with someone

Feminine head noun: modification by an adjective

- (2) ndó **fáfádś ro mblín**
 PRES first.fruits MOD:F new
It's the first fruits of the year

Plural head noun: modification by a prepositional phrase

- (3) [lé n a wo dó yó]_{VCS} [nehíse]_{VCC}
 child:PL MOD:PL PREP village DET:F DET:PL obstinate:PL
The children in the village are trouble makers

¹ This process is noted in Mahamat (2005:41).

The head noun can be an underived noun (as shown above) or a derived form, like a noun-noun construction (discussed in more detail in section 6.2 below), or the infinitive form of a verb (discussed in more detail in section 5.3). These last two options for the head noun are illustrated below.

Head noun is a noun-noun construction: modification by the non-specific marker

- (4) **me sə tíā n si ā yā gǎlk'ə**
 sultan NMOD:M olden.times MOD:M NONSPEC:M 3SG:M:CMPL become old:M
A certain sultan of olden times grew old

Head noun is an infinitive: modification by a prepositional phrase

- (5) **sá-n he n a sāge só ā bōro də**
 live-INF L.P. MOD:M PREP lake DET:M 3SG:M:CMPL be.enough 3SG:F:IO
She was tired of living in the lake
(lit. living in the lake sufficed her)

Within the noun phrase, Makary Kotoko is strictly head-initial. When more than one modifying element follows the head noun (HN), the relative order of the modifying elements is as follows:

HN : POSS : ADJ : NONSPEC : PP : RC : DEM / DET

I've placed adjectives between the coding of possession and the non-specific marker but they actually vary in their position relative to both of these. Also, I have not placed numerals and non-numeral quantifiers in the list above, as they show a higher degree of variability with respect to their position in the clause. I have placed a forward slash between the nominal demonstrative and the definite determiner in the schema above. This is because the demonstrative forms are composed of a gender sensitive demonstrative component and the definite determiner. This is described further in section 6.1.6. I set

aside the presentation of numerals and non-numeral quantifiers, discussing them in chapter 7. In what follows, I will address each of the modifying elements in the schema above, working from left to right.

6.1.1 Possession

The possessive determiners are the modifying element that (almost) always comes first after the head noun and before any other modifying elements.² The structure of the possessive determiners is as follows: **MODIFYING.MARKER-POSSESSION-PERSON/NUMBER/(GENDER)**. The modifying marker codes the gender/number of the head noun. The possessive marker (*gə*) is formally identical to the general preposition *gə*, and they may in fact be the same marker. In that case, the preposition *gə* codes possession when it occurs within a noun phrase. Its functions outside the noun phrase are quite varied and are described in section 11.2.1. The pronominal element following the possessive marker codes the person, number, and gender (for 2SG and 3SG) of the possessor, as shown below.

- (6) yagí má ā sī tōlu n-gə-n ts'ā rə
 who FOC 3SG:M:CMPL take road MOD:M-POSS-3SG:M only 3SG:M
Each one went his own way

The forms of the possessive determiners are given in the following table.

Person	Non-feminine	Feminine
1SG	ngu	rogu
2SG:M	ngó	rongó
2SG:F	ín	róm
3SG:M	ngən	rogən

² This process is noted in Mahamat (2005:43-44).

Person	Non-feminine	Feminine
3SG:F	ngádə	rogádə
1PL:INCL	ngámo	rogámo
1PL:EXCL	ngáne	rogáne
2PL	ń	rón
3PL	ngódan	rogódan

Table 6.1 Possessive determiners

Unlike the other cases of modification, I write the modifying marker affixed to the possessive marker since there are some instances of fusion, particularly for the second person forms. The possessive pronouns are formed using *en* (3SG:M/3PL) and *no* (3SG:F) in place of the modifying markers *n* (MOD:M/PL) and *ro* (MOD:F), respectively. The forms are given in the following table.

Person	Non-feminine	Feminine
1SG	engu	nogu
2SG:M	engó	nongó
2SG:F	ém	nóm
3SG:M	engən	nogən
3SG:F	engádə	nogádə
1PL:INCL	engámo	nogámo
1PL:EXCL	engáne	nogáne
2PL	én	nón
3PL	engódan	nogódan

Table 6.2 Possessive pronouns

These forms are used when the possessee is known/understood by the context. In this next example the possessive determiner occurs in the first line, and the possessive pronoun in the second.

- (7) msī nəmân ā ɕí gə **gərəm** **ro-gə-n**
 man.of money 3SG:M:CMPL reject PREP woman MOD:F-POSS-3SG:M
The rich man divorced his wife

- (b) msī gēre de ā dží gə **no-gə-n** dó
 man.of farming S.R. 3SG:M:CMPL reject PREP 3SG:F-POSS-3SG:M DET:F
The farmer divorced his wife

When the possessee is known/understood by context and the possessor is expressed nominally the forms

engə (for 3SG:M and 3PL) and *nogə* (for 3SG:F) are used, as shown below.

Masculine gender possessee, nominal expression of possessor

- (8) [bamínák'ō só]_{VCS} [**en-gə** mēy tíā só]_{VCC}
 meal(SP) DET:M 3SG:M-POSS people.of olden.times DET:M
This (type of) meal is one that people of olden times would prepare

Feminine gender possessee, nominal expression of possessor

- (9) msī gēre de ā sī
 man.of farming S.R. 3SG:M:CMPL take
The farmer took the rich man's (wife)

- (b) **no-gə** msī nəmân só dó
 3SG:F-POSS owner.of money DET:M DET:F
The farmer took the rich man's (wife)

When both the possessee and the possessor are expressed nominally the forms *ngə* (for 3SG:M and 3PL)

and *rogə* (for 3SG:F) are used, as shown below.

Nominal expression of possessee (of masculine gender) and nominal expression of possessor

- (10) blō [n a]in gə amsó **n-gə** gērəm]_{RC} de
 man MOD:M NEUT:3SG:M hear PREP word MOD:M-POSS woman S.R.
The man who listens to the advice of a woman

- (b) m-á wi
 IRR-SG:M be.lost
will be lost

speaker will speak of ‘our father’ instead of ‘my father’, or ‘their (older) sister’ instead of ‘her (older) sister’. This is shown in the next two examples. In this first example, both the step-mother and the father are plurally possessed.

- (14) **babâ** **ro-gó-ne** əl gə **abá** **n-gó-ne** gí
 stepmother MOD:F-POSS-3PL NEUT:3SG:F say father MOD:M-POSS-1PL:EXCL COMP
My stepmother said to my father that ...

In this example the older cousin and the uncle are plurally possessed.

- (15) [**yayá** **n** nda só]_{CS}
 older.sibling MOD:M-POSS:2PL DEM:M DET:M
This brother (i.e., cousin) of yours

- (b) ndó [ló n-gə **akúra** **n**]_{CC}
 PRES child MOD:M-POSS older.brother.of.father MOD:M-POSS:2PL
is the son of your uncle

If the possessor is realized nominally, the pronoun *en* (3PL) precedes the possessor in order to maintain the requirement that older kin are plurally possessed, as shown in the next two examples. (The second line of interlinearization gives the contracted form that is typically produced for this construction.)

- (16) **abá** n-gə **en** Madilgayo
 [abéŋ]
 father MOD:M-POSS 3PL Madilgayo
father of Madilgayo {girl's name}

- (17) **yá** ro-gə **en** me
 mother MOD:F-POSS 3PL sultan
The sultan's mother

The plural pronoun *en* (3PL) before a nominal realization of the possessor can also be used as a sort of ‘associative plural’ in other contexts when the possessee is not an older kin. Compare the next

two examples from different texts but with similar syntax. The first makes use of the plural pronoun *en* before the nominal realization of the possessor, the second doesn't.

(18) wo ro-gə en yá ró-n dó
 village MOD:F-POSS 3PL mother MOD:F-POSS:2PL DET:F
The village of your mother (and her people)

(19) wo ro-gə yá ro-gə-ne
 village MOD:F-POSS mother MOD:F-POSS-1PL:EXCL
My mother's village

The plural possession of kin does not apply when the possessee is younger than the possessor, as shown below.

(20) **katána** **n-gə-n** só a sən
 younger.sibling MOD:M-POSS-3SG:M DET:M NEUT:3SG:M know
His younger brother knew

6.1.2 Adjectives

Adjectives provide descriptive modification of the referent of the head noun. Like nouns, they can be pluralized, though the coding of plurality on adjectives (almost) always coincides with plurality of the noun they modify. Unlike nouns, adjectives do not have inherent gender. There are about fifty adjectives in the corpus, though only about a dozen occur with any degree of frequency. The adjectives fall into all of the semantic types identified in Dixon (2004:1-49): dimension, age, value, color, physical property, human propensity, speed, difficulty, similarity, qualification, quantification, position, and cardinal numbers. As noted in section 5.1, the plural form of nouns and adjectives is generally formed by the addition of the suffix /-e/ to the root (e.g. *səlám*, pl. *səlámé* 'black'). In some cases the suffix /-e/

replaces the final vowel of the root (e.g. *nehísu*, pl. *nehíse* ‘stubborn’). For a small group of words, the vowel of the root is changed (generally to [a]) in the plural form (e.g. *gǎlk’ə*, pl. *gǎlk’e* ‘old’). When the vowels of the root are /u/, the inserted vowel is [o] instead (e.g. *dúgumí*, pl. *dóngome* ‘long’). In one case the vowel of the root changes but the plural suffix /-e/ is not added (*dǎmo*, pl. *dāmo* ‘big’). For one plural adjective (*mbíre* ‘good’), the root form (*mbîn* ‘be good’) does not function as an adjective but as a verb.

- (21) ndá-l hǎn gāram **mbír-e**
 INCMPL-3SG:F do woman:PL good-PL
She (re)creates good (looking) women

The term meaning ‘old’ in Makary Kotoko actually has two forms in the singular, corresponding to the biological gender of its referent (*gǎlk’ə* (old:M), *gǎlk’a* (old:F)). Though this term can function as an adjective, it most frequently functions as a noun in the corpus. The first example below gives evidence of it functioning as an adjective – it takes the modifying marker before it. The second example shows *gǎlk’ə* functioning like a noun since it occurs in the noun-noun construction – the construction used when a noun modifies another noun (cf. section 6.2 below for more details on this construction).

gǎlk’ə ‘old’ functioning as an adjective

- (22) blō n **gǎlk’ə** lāke só i la rə
 man MOD:M old:M each DET:M NEUT:3PL kill 3SG:M:DO
Each old man, they should kill him

gəlk'ə 'old' functioning as a noun

- (23) m sá**bə** gə ārfu sə **gəlk'ə**
 NEUT:1PL:INCL wait PREP elephant NMOD:M old:M
Let's wait for the old elephant (i.e., the leader)

There are a few cases in the corpus where a singular noun is modified by a plural adjective. In each case, the head noun refers to an animal (particularly cows, horses, elephants, and monkeys in the corpus), and has masculine gender. In such cases the singular noun is understood 'collectively' as referring to a group (e.g. herd, pack, etc.) of the animals in question, as shown below. Note the form of the definite determiner is masculine (agreeing in gender with the head noun), the form of the subject marker is 3SG:M, but the form of the adjective is plural.

- (24) ārfu n **ʃamé** só a gə gí ...
 elephant MOD:M small:PL DET:M NEUT:3SG:M say COMP
The small(er) elephants said ...

Unlike the situation for most of the other modifying elements within the noun phrase (i.e., possessive determiner, non-specific marker, prepositional phrases, relative clauses), the modifying marker (*n* (MOD:M/PL) or *ro* (MOD:F)) is not obligatory between the noun and the following adjective when the noun is not marked with the definite determiner. This is shown in the next two examples, each with the adjective *dəmo* 'big'. The first example shows the adjective directly following the head noun. The second shows the use of the intervening modifying marker between the head noun and the modifying adjective. I have not been able to determine if the presence or absence of the modifying marker in these cases codes a distinct function.

No modifying marker preceding the adjective

- (25) ē ka **wo** **dāmo**
 3PL:CMPL find village big
They found a big village

Modifying marker preceding the adjective

- (26) a do **lam** **n** **dāmo**
 NEUT:3SG:M take.to river MOD:M big
He took (her) to a big river

However, if the head noun is marked with the definite determiner, then the modifying marker is

(almost) always present. The function of the definite determiner is discussed in section 6.1.7. The next example shows the presence of the modifying marker when the definite determiner is present.

Modifying marker preceding adjective when definite determiner is present

- (27) kón **blō** **n** **dāmo** **só** da mé-g kō ho nasî
 2SG:M:IND man MOD:M big DET:M CONTR IRR-2SG tell L.P. first
You, the (most) important one, you'll tell (us) first

The only exception to the preceding statement is for the highly frequent noun-adjective pairing *ló fimé*

(child small) ‘small child’, where even though the definite determiner codes the noun phrase, there is no modifying marker between the noun and the adjective which follows.

- (28) lé **jamé** i azar yo
 child:PL small:PL NMOD:PL late.afternoon DET:PL
The little children of the afternoon (i.e, troublemakers)

The actual position of the adjective within the noun phrase relative to the possessive determiner and the non-specific marker is somewhat free, occurring before or after either in the data.

Adjective before possessive determiner

- (29) blō **n** **dōmo** n-gə me sə Waday só
 man MOD:M big MOD:M-POSS sultan NMOD:M Waday DET:M
 The sultan of Waday's important man

Adjective after possessive determiner

- (30) gó ro-g-u **ro** **ngaba** ro dó
 head MOD:F-POSS-1SG MOD:F white DEM:F DET:F
 This white (haired) head of mine

The next two examples show an adjective coming before and after the non-specific marker, respectively.

Adjective before non-specific marker

- (31) ndó **ló** **ɟimé** **n** **si** da ...
 PRES child small MOD:M NONSPEC:M CONTR
 It's some small child ...

Adjective after non-specific marker

- (32) ā há ga gó **sí** **ro** **so** **wágó**
 3SG:M:CMPL put mouth with tree MOD:F NONSPEC:F tall
 He looked up into a tall tree

Adjectives consistently precede all other modifying elements within the noun phrase (i.e., prepositional phrases, relative clauses, demonstratives (cf. example (30) above), and determiners (cf. example (27) above)). The following example shows the adjective before a relative clause.

Adjective precedes relative clause

- (33) a do **lam** **n** **dōmo** **n** [a **la** **mēgə**]_{RC}
 NEUT:3SG:M take.to river MOD:M big MOD:M NEUT:3SG:M kill people
 He should take (her) to the big river that kills people

It's possible for more than one adjective to occur within a noun phrase. However, I have not explored the ordering of adjectives relative to each other within the noun phrase in any detail in the language. In

the corpus, there are four examples of two adjectives within the noun phrase. The tentative pattern that emerges is that the adjective further away from the head noun has scope over the adjective closer to the head noun.

The next example has an adjective of the semantic type ‘age’ preceding a quantifier.

Age before quantification

- (34) **blō n gālk'ə lāke só i la rə**
 man MOD:M old:M each DET:M NEUT:3PL kill 3SG:M:DO
Each old man, they should kill him

This next example shows an adjective of the semantic type ‘similarity’ preceding an adjective of the type ‘dimension’.

Similarity before dimension

- (35) **ndá-y gá gē-i dāngwe n gadé jamé**
 INCMPL-3PL put mouth-NMOD:PL clay.jar:PL MOD:PL other small:PL
They would put (it) into other, small(er), clay jars

The meaning of the preceding sentence is that ‘the other jars’ referred to in the example are smaller in size than some jars previously mentioned. If the order of the adjectives were reversed, it would mean that ‘the other jars’ referred to in the example are small just like the ones previously mentioned. This is a clear illustration of how the adjective further from the head noun has scope over the one closer to the head noun.

This next example shows an adjective of the semantic type ‘dimension’ preceding an adjective of the type ‘age’.

Dimension before age

- (36) gə ka ló ʃimé k'əmbəl
 NEUT:2SG find child small young
you find a small young child

This next example shows an adjective of the semantic type ‘dimension’ preceding an adjective of the type ‘human propensity’.

Dimension before human propensity

- (37) lé ʃamé n nehíse nde yó
 child:PL small:PL MOD:PL obstinate:PL DEM:PL DET:PL
These obstinate small children

The adjective *gadé* ‘(an)other’, a borrowing from Kanuri, is exceptional in that it always has the modifying marker before it, but it never occurs in a clause with the definite determiner. The fact that the term *gadé* and the definite determiner don’t co-occur in the same clause is likely evidence of their incompatible functions. The term *gadé* refers to an unidentified entity while the definite determiner (as described in section 6.1.7 of this chapter) indicates that the referent of the noun phrase it codes is identifiable.

- (38) ā sī tōlu n gadé
 3SG:M:CMPL take road MOD:M other
He took another route

When *gadé* modifies *fā* ‘year’, as in *fā ro gadé* (year MOD:F other) it means ‘next year’.

In this next example the adjective *gadé* occurs between the possessive determiner and the non-specific marker – in ‘prototypical’ adjective position.

- (39) [wa n-gə-n n gadé n si má]_{CS}
 thing:CONC:PL MOD:PL-POSS-3SG:M MOD:PL other MOD:PL NONSPEC:PL FOC
Other things of his

- (b) nde [lə]_{CC} wa
 be.at:PL PRO NEG
didn't exist
(i.e., He had no other possessions)

6.1.3 Non-specificity

Makary Kotoko has a marker which codes the non-specificity of the head noun. I use the term non-specific not in the sense of 'generic' (i.e., referring to the class of which the entity is a part), but in a sense that is comparable to certain uses of the word 'some' in English (e.g. "Some guy just called"). If the head noun is masculine or plural, the non-specificity marker is *si* (NONSPEC:M/PL). If the head noun is feminine, the non-specificity marker is *so* (NONSPEC:F). This is another instance in the grammar of the language where the plural marker is not distinct from the masculine marker. As such, there is a feminine/non-feminine (i.e., masculine and plural combined) distinction made for the marking of non-specificity. The next three examples illustrate the non-specificity marker with a masculine head noun, feminine head noun, and plural head noun, respectively.

Masculine head noun

- (40) [mdal n si]_{CS} nda [lə]_{CC}
 pond MOD:M NONSPEC:M be.at:M PRO
A pond was there

Feminine head noun

- (41) ā sī swó a wo ro so
 3SG:M:CMPL take Arab PREP village MOD:F NONSPEC:F
He married an Arab (woman) from a village

- (b) a gə Masaki he
 PREP PREP Masaki L.P.
near Masaki

Plural head noun

- (42) ā ka lé jamé n si
 3SG:M:CMPL find child:PL small:PL MOD:PL NONSPEC:PL
He found some small children

The word *sə* ‘day’ modified by the non-specific marker is a common way to move a narrative to a subsequent day.

- (43) sə ro so n-ō dō ló ro-gó-də gēre
 day MOD:F NONSPEC:F 3SG:F-CMPL put child MOD:F-POSS-3SG:F commission
One day she send her daughter on an errand

When the non-specific marker is used with the words *lūdō* ‘yesterday’ and *gīsu* ‘tomorrow’, it gives the meaning of ‘the day before yesterday’ and ‘the day after tomorrow’, respectively. The non-specific marker can modify the suppletive plural form *wa* ‘thing:CONC:PL’ (realized [we]) as an indirect reference to money (especially when someone is requesting some from someone else).

The non-specific marker can occur with the definite determiner. The fact that the two can co-occur provides evidence that the non-specific marker is not an indefinite determiner. When the non-specific marker occurs with the definite determiner, the combination gives the meaning of ‘the other(s)’. This is in contrast to *gadé* described at the end of section 6.1.2 above which conveys the idea of ‘another, others’.

- (44) ā ɕjí gə lú-n gó **sélé** n si yó
 3SG:M:CMPL refuse PREP come-INF with bird:PL MOD:PL NONSPEC:PL DET:PL
He refused to come with the other birds

6.1.4 Prepositional phrase

Prepositional phrases can be used to modify a noun. Other functions of prepositions are presented in chapter 11. The two prepositions that are used as nominal modifiers are the locative preposition *a* (PREP), and the comitative preposition *gó* ‘with’. The modifying marker (*ro* (MOD:F), *n* (MOD:M/PL)) always precedes prepositions that modify a noun. This is a coding means used to indicate that the prepositional phrase functions as a nominal modifier instead of an argument or adjunct of the clause. The locative preposition *a* indicates the location of the head noun, as shown below.

- (45) m-á fo kən **ságwá** ro a gó ro-gə-n
 IRR-3SG:M give:APPL 2SG:M:IO hat MOD:F PREP head MOD:F-POSS-3SG:M
He'll give you the hat on his head

The comitative preposition *gó* ‘with’ indicates that the referent of the object of the preposition goes together with the referent of the head noun in some way. Context helps to determine how the two are to be viewed as being together.

- (46) k'ani ē dɔ̃ wo ro gó me
 CONJ 3PL:CMPL go village MOD:F with sultan
Then they went to a village that had a sultan

Note in this past example that if the modifying marker were not present, the clause would mean that a sultan went with them to a village.

6.1.5 Relative clause

Clauses can also be used to modify a noun. Relative clauses (RC) are discussed in more detail in chapter 27. Here I provide examples of a clause modifying a masculine head noun, a feminine head noun, and a plural head noun, respectively. In each of the examples provided, the head noun is co-referential with the subject marker of the RC and the matrix. The RC is noted with square brackets and subscripting.

Masculine head noun

- (47) **skí** [n ā k'ō tón]_{RC} só ā yā elíō
 blood MOD:M 3SG:M:CMPL fall ground DET:M 3SG:M:CMPL become vine(SP)
The blood that fell on the ground became a (type of) vine

Feminine head noun

- (48) **nyi** [ro n-ō gá si gó-dan ho]_{RC} dó
 thing:ABSTR MOD:F 3SG:F-CMPL put REFL PREP-3PL L.P. DET:F
The thing that happened to them

- (b) n-ō ɕigala lə
 3SG:F-CMPL go.beyond PRO
was unbelievable

Plural head noun

- (49) **fáskē** [n ē n-k'ó tón]_{RC} yó ē bōro
 feathers MOD:PL 3PL:CMPL PL-fall ground DET:PL 3PL:CMPL suffice
The feathers that fell to the ground were enough

6.1.6 Nominal demonstratives

Demonstratives in Makary Kotoko are of two types: (i) nominal demonstratives, discussed in this section, and (ii) local adverbial demonstratives, discussed in chapter 12.³ Both types of demonstratives have a deictic function, pointing to something in the context. That context can be the linguistic context (i.e., referring back to something previously mentioned) or the extra-linguistic context. Within the extra-linguistic context, the entity pointed to can be visible or non-visible. The demonstratives have a proximal/distal contrast and distinguish for the gender/number of their referent. For nominal demonstratives it is necessary to distinguish those that can function as a complete noun phrase from those that occur in a noun phrase, since there are distinct feminine forms for these. The following table summarizes the forms of the nominal demonstratives.

Gender/Number	Proximal/Distal	complete NP	occurs in NP
M	Proximal	nda só	
	Distal	nda te só	
F	Proximal	ndo dó	ro dó
	Distal	n-te dó / n-to dó	ro n-te dó / ro n-to dó
PL	Proximal	nde yó	
	Distal	nde te yó	

Table 6.3 Nominal demonstratives

The definite determiners (só (DET:M), dó (DET:F), yó (DET:PL)) are a component part of the nominal demonstrative forms. As seen in the table above, a common element for the distal forms is *te*, which I gloss as DIST.

³ Mahamat (2005:47-48) presents similar forms for the nominal demonstratives.

Unlike many of the modifying elements that function within the noun phrase, the nominal demonstratives do not (generally) occur with the modifying markers (*n* (MOD:M/PL) and *ro* (MOD:F)). As noted above, within nominal demonstratives I distinguish those that constitute a complete NP (i.e., traditionally, demonstrative pronouns) from those that occur within a NP (i.e., demonstrative determiners) since there are distinct forms for each in the feminine, as shown in the next two examples.

Proximal demonstrative determiner with feminine head noun

- (50) **hóngwó ro dó** sa n jú n-go só
 goat DEM:F DET:F IMP:2SG:prepare.food:APPL 1SG:IO meat MOD:M-POSS DET:M
This goat, cook the meat of (it) for me

In this next example the demonstrative occurs twice, at the beginning of each line. Both times it refers to an action that the speaker just carried out. The term *nyi* (thing:ABSTR), which refers to abstract entities including situations and actions, is of feminine gender, which explains the feminine form of the demonstrative.

Proximal demonstrative pronoun referring to antecedent with feminine gender

- (51) **A: ndo dó** g-ō i n yó go wa ngá la he
 DEM:F DET:F 2SG-CMPL teach 1SG:IO L.P. PREP NEG INTENS MMR what
“That (move), why didn’t you ever teach me (it)?”

- (b) **B: ndo dó** u k'ō do gə gó ro-g-u
 DEM:F DET:F NEUT:1SG grab MMR PREP head MOD:F-POSS-1SG
“That (move) is how I saved myself”

In the summary chart above, I provided two forms for the feminine distal demonstrative. Each of these is illustrated in the next two examples. These appear to be free variants.

Distal demonstrative pronoun referring to feminine noun

- (52) skí da a fō tán gá-də
 blood CONTR NEUT:3SG:M run ground PREP-3SG:F
Blood poured from her_i (body)

- (b) k'ani nte dó de bán bán bán
 CONJ DEM:DIST:F DET:F S.R. IDEO IDEO IDEO
Then that one_k

- (c) n-ō dō gē-i ho l me
 3SG:F-CMPL go mouth-NMOD:PL house NMOD:F sultan
went to the sultanate

Distal demonstrative pronoun referring to feminine noun

- (53) gə fára nto dó dāge
 NEUT:2SG surpass DEM:DIST:F DET:F INTENS
You are better than that one by a lot

Generally, when the distal forms are used, as in the two examples above, they serve to contrast one entity with another (either given in the text or understood by context). This is particularly evident when both the proximal and the distal forms are used within a portion of the discourse, as in the next example. The context is that the speaker is giving advice to his addressee regarding how to deal with interpersonal conflict between two people. The proximal demonstrative occurs at the beginning of line (b), the distal form at the start of line (d).

- (54) tá-g fá blō n si wa
 PROH-2SG side.with man MOD:M NONSPEC:M NEG
Don't side with anyone

- (b) nda só de fo rə kanadí
 DEM:M DET:M S.R. IMP:2SG:give:APPL 3SG:M:IO patience
Tell this one to be patient

(c) aro la ǝrfu n-gə-n
 CONJ IMP:2SG:hit heart MOD:M-POSS-3SG:M
and calm him down

(d) nda te só dɛ fo rə kanadí
 DEM:M DIST DET:M S.R. IMP:2SG:give:APPL 3SG:M:IO patience
Tell that one to be patient

(e) aro la ǝrfu n-gə-n
 CONJ IMP:2SG:hit heart MOD:M-POSS-3SG:M
and calm him down

Within the corpus, the distal forms are relatively rare. It is the proximal forms which are more frequent. In most uses of the proximal demonstratives the function is not to contrast entities so much as to verbally point at a particular entity. That entity may be within the linguistic context, as in the next example. The context is that the story teller has recounted the advice that a dying father gave to his son. At the conclusion of the story, he points back to the advice that was given (i.e., what he just said) using the demonstrative. In all probability, the masculine form of the demonstrative is used because the term for advice in Makary Kotoko is masculine (*wási* ‘advice’).

(55) [nda só]_{VCS} [amsó [n abá n-gó-dan
 DEM:M DET:M word MOD:M father MOD:M-POSS-3PL
That was what his father

(b) ā gə rə a ʃimé-sən n-gə-n]_{RC}]_{VCC}
 3SG:M:CMPL say 3SG:M:IO PREP small-NOM MOD:M-POSS-3SG:M
told him when he was young

Similarly, in this next example, a group of girls is each required to say a sequence of nonsensical words.

One of the girls says the sequence and then points at it, saying that she said it for her and her friend (so her friend wouldn't have to say it).

- (56) haiyеkehеlunguʃ'o
 haiyеkehеlunguʃ'o
 “Haiyеkehеlunguʃ'o”

- (b) [ndo dó]_{VCS} [no-gá-ne gó sabâ ro-g-u]_{VCC}
 DEM:F DET:F 3SG:F-POSS-1PL:EXCL with friend MOD:F-POSS-1SG
That is mine and my friend's

The demonstrative forms can also point to something in the extra-linguistic context. In many cases, this is something visible to the speaker, as below.

- (57) n-ō gə n gí u dэгəсə wahíe nde yó
 3SG:F-CMPL say 1SG:IO COMP NEUT:1SG remove grains DEM:PL DET:PL
She told me to remove these grains

The entity pointed at need not be visible though. The context of this next example is that a donkey is explaining to a hyena what he claims happens when the donkeys are hit with a stick by their handlers – they are then given a chunk of meat to eat. This is the first mention of the meat in the discourse and the meat is not visible within the context.

- (58) blō [n ē kó rə sāw kaʃ]_{RC} aro
 man MOD:M 3PL:CMPL hit 3SG:M:IO stick IDEO CONJ
The one they hit with a stick,

- (b) **ǰú** [n ā bē]_{RC} **nda** **só**
 meat MOD:M 3SG:M:CMPL be.fattened DEM:M DET:M
that (good) fattened meat

- (c) ndá-y i rə maʃu kál
 INCMPL-3PL snatch 3SG:M:IO cheek just
they throw him a mouthful (of it)

The demonstratives can modify an independent pronoun functioning as head ‘noun’, as in the following example where reference to the addressee is modified by the demonstrative. By context, it is understood that the addressee is being contrasted with the speaker (and others).

- (59) **tó** **ro** **dó** mǝ-g bó gó gə sǎ tən wa
 2SG:F:IND DEM:F DET:F IRR-2SG be.able PREP NEUT:2SG sit ground NEG
You won’t be able to sit down (as we do)

The corpus contains no instances of 1PL:INCL or 3SG/PL independent pronouns being modified by demonstratives but elicited data indicates that these forms are possible as well. The demonstratives can modify the form *ení* ‘so and so’ which is used when knowledge of the name of the (human) referent in question is not deemed necessary. In this example it refers to someone who is not present.

- (60) **A:** [sabâ n-gó só]_{VCS} [e le]_{VCC}
 friend MOD:M-POSS:2SG:M DET:M 3SG:M what
Who is your friend?

- (b) **B:** **ení** **nda** **só**
 so.and.so DEM:M DET:M
So and so (is)

The following series of examples provide evidence for the position of the demonstrative relative to other modifiers in the noun phrase. The demonstrative follows all other modifiers.

Demonstrative follows possession

- (61) we do n gə **sabâ** **n-g-u** **nda** **só** ho
 NEUT:2PL take 1SG:IO PREP friend MOD:M-POSS-1SG DEM:M DET:M L.P.
Take me to that friend of mine

Demonstrative follows adjectival modification

- (62) **kənérī** n **bərkô** **nda** **só**
 squirrel MOD:M crafty DEM:M DET:M
That crafty squirrel

Demonstrative follows numeral

- (63) **nyi-e** n **gāsi** **nde** **yó**
 thing:ABSTR-PL MOD:PL two DEM:PL DET:PL
those two things

Demonstrative follows modifying prepositional phrase

- (64) **kó-n** **mts'al** n **a** **gó-l** **sí-e** **nda** **só**
 put-INF jumping MOD:M PREP head-NMOD:F tree-PL DEM:M DET:M
this jumping in trees

Demonstrative follows relative clause

- (65) **don** [n u **bāse**]_{RC} **nda** **só**
 1SG:IND MOD:M NEUT:1SG be.bad DEM:M DET:M
Me, that is bad

6.1.7 Definite determiner

In his sketch of the nominal morphology of Makary Kotoko, Mahamat (2005) identifies the gender sensitive determiners (*só* (DET:M), *dó* (DET:F)) and proposes that they “jouent le même rôle que l’article défini en français” ([they] play the same role as the definite article in French) (2005:27). My description of the function of the definite determiners is in terms of the identifiability of the referent of the noun in question. That is, the proposed function of the definite determiner is to indicate that the referent of the noun phrase in which the determiner occurs is identifiable. What I mean is that by using

the determiner, the speaker considers that the addressee can use context to determine the referent of the noun phrase coded with the definite determiner. Entities can become identifiable in a certain number of ways: (i) the referent of the noun phrase coded with the determiner has been previously mentioned, (ii) the referent of the noun phrase coded with the determiner is in a semantic relationship with a previously mentioned entity (e.g. a meronymic (part-whole) or metonymic (associative) relationship), (iii) the noun phrase refers to a uniquely identified referent (e.g. the sun).

The forms of the definite determiner in Makary Kotoko are given in the following table.

Gender/Number	Determiner
M	só
F	dó
PL	yó

Table 6.4 Definite determiners

The determiners are consistently realized with H tone. When present, the determiner is the last element in the noun phrase, following possessives, adjectival modification, the non-specific marker, modifying prepositional phrases, and relative clauses. It cannot occur in addition to the demonstratives as the determiner is a component part of the demonstratives. This formal fact may suggest that entities marked with the demonstratives are also considered identifiable.

It is important to note that a previous mention does not mean that subsequent mentions of the noun phrase in question will be automatically marked with the determiner. Whether subsequent mentions of a noun phrase are coded with the definite determiner is pragmatically determined. That is, it

depends upon the subsequent function of the referent of the noun phrase within the discourse. It is, in fact, quite possible to make mention of a noun phrase repeatedly without using the definite determiner.

This is the coding means used to indicate that the referent is and remains indefinite. The next example illustrates this possibility. The noun *kórná* ‘calf’ occurs without the definite determiner in all three of its occurrences.

(66) **A:** íya hó ro-gə Kardama dó [kórná]_{CS} ndwa [lə]_{CC}
 mom house MOD:F-POSS Kardama DET:F calf be.at:F PRO
Mom, there’s a calf at Kardama’s house

(b) **B:** [kórná]_{CS} ndwa [lə]_{CC}
 calf be.at:F PRO
“There’s a calf there?”

(c) **A:** a [kórná]_{CS} ndwa [lə]_{CC}
 yes calf be.at:F PRO
“Yes, there’s a calf there”

The fact that the second and third mention of *kórná* ‘calf’ are not coded with the definite determiner shows that previous reference of an entity is not a sufficient condition for the use of the definite determiner. However, if an entity has been previously mentioned, it is then possible, depending upon the function of the referent in the ongoing discourse, to mark a subsequent reference with the definite determiner, as shown below. This example comes from the beginning of the story from which it is taken. In the first line, the reference to the children of the lion is not coded with the definite determiner, indicating that this is an indefinite reference to them. In line (b) the children of the lion are mentioned again but coded with the definite determiner indicating they are now identifiable.

- (67) [ftar]_{CS} gó [lé n-gə-n]_{CC} k'ani
 lion with child:PL MOD:PL-POSS-3SG:M CONJ
A lion had some children, then

- (b) lé n-gə-n yó ā dā ní ā fí wāləm
 child:PL MOD:PL-POSS-3SG:M DET:PL 3SG:M:CMPL go L.P. 3SG:M:CMPL pour hole
he went and put his children in a hole

The second means by which the referent of a noun phrase becomes identifiable is that the referent of the noun phrase coded with the determiner is in a semantic relationship with a previously mentioned item. Specifically, the referent of the noun phrase marked with the determiner is in a meronymic (part-whole) or metonymic (associative) relationship with a previously mentioned item. Some instances within the corpus where the ‘whole’ has been previously mentioned so the ‘part’ is coded with the determiner include: body parts (e.g. the tail of a previously mentioned dog), parts of a building (e.g. the front door of a house), component parts of an implement (e.g. the handle of a hoe), members of a previously mentioned group, the night as part of the day, etc. The following example provides illustration. A person approaches the sultanate and then knocks on the door. The door is coded as identifiable since it is part of the sultanate.

- (68) ā dā gē-i ho-l-me
 3SG:M:CMPL go mouth-NMOD:PL house-NMOD:F-sultan
He went to the sultanate

- (b) **dábrá** **dó** ā dā gó fí tab tab tab
 door DET:F 3SG:M:CMPL hit PREP hand IDEO IDEO IDEO
(and) knocked on the door “knock, knock, knock”

Instances within the corpus where the referent of the noun phrase coded with the determiner is in a metonymic relationship with a previously mentioned element include: family relationships (e.g. referring to someone's parents or siblings), the location in which an event occurred, the clothing a person is (assumed to be) wearing, the road one travels on while on a trip, the hole in which something is buried, the pot used for cooking, one's occupation, the sultan's subjects, etc. The following example provides illustration. A man is on a trip and finds some food to eat at a roadside stall. The road is coded as identifiable since it is one of the elements associated with taking a journey.

(69) ā dɔ́ ní ā ka māsar gó nakên
 3SG:M:CMPL go L.P. 3SG:M:CMPL find corn with seed(SP)
He went on and found corn and (edible) seeds

(b) a gó-l tōlu só
 prep head-NMOD:F road DET:M
along the road

The previous example, where an entity that has not been mentioned before is coded with the definite determiner, shows that previous mention is not a necessary condition for the use of the definite determiner.

The third means by which the referent of a noun phrase is identifiable is when it is uniquely identified. Instances within the corpus where the referent of the noun phrase coded with the determiner is uniquely identified include: the original inhabitants of Makary, the world, the sun, etc. The next example is the beginning of the story from which it is taken. The reference to the first people of the village is coded with the definite determiner since they are uniquely identifiable.

- (70) **mēy** **gay** n a wo ro dó **yó**
 people.of first MOD:PL PREP village DEM:F DET:F DET:PL
The first people of this village,

- (b) **moe** n-gó-dan yó i bo fā-e kádágó
 sultan:PL MOD:PL-POSS-3PL DET:PL NEUT:3PL have year-PL a.lot
their sultans lived a long time

Whether a noun phrase is considered identifiable or not is a relative concept, depending upon the perspective of those involved. For instance, in one story a hyena has hidden from a lion in a hole. The lion takes a clay jar filled with warm coals (not coded with the definite determiner as this is the first mention of the jar) and puts it over the mouth of the hole. The hyena, however, thinks that the lion has lain down at the mouth of the hole. Going forward in the story, the narrator makes mention of the clay jar (coded with the definite determiner this time as it is identifiable to the addressees), stating that because of it, the hyena refuses to try to leave the hole. After some time the hyena becomes so hungry he decides to rush the entrance of the hole in hopes of escaping. He knocks the clay jar out of the entrance of the hole and notes that it was a clay jar that blocked his path (and not the lion as he thought). At this point in the narration, the clay jar is not coded with the definite determiner as it is not identifiable from the hyena's perspective.

The definite determiner can also modify an independent pronoun. The next example provides illustration. The fact that an independent pronoun can be coded with the definite determiner does not undermine the proposed function that the determiner indicates that the referent of the noun phrase it occurs in is identifiable. It could be claimed that referents of independent pronouns are already

identifiable so why mark them as such. Remember my claim is not that the use of the definite determiner makes the referent of the noun phrase identifiable, but that it indicates that it is identifiable. When the determiner modifies an independent pronoun, the pronoun always occurs in pre-subject position. As explained in chapter 26, placing a noun phrase in pre-subject position is the means used to indicate that the referent of that noun phrase is the topic of the clause in question. Topics – what is being talked about – are generally identifiable entities, so the use of the definite determiner after independent pronouns is not unexpected.

(71) n-ō ndə rə
 3SG:F-CMPL see 3SG:M:DO
She saw him

(b) dāmá **dan** só ā ndə dó wa
 ADVERS 3SG:M:IND DET:M 3SG:F-CMPL see 3SG:F:DO NEG
But he didn't see her

The determiner can also modify proper names. In the next example, it follows the second mention of Rabah, an historical person who briefly reigned over the Kotoko area and beyond prior to the arrival of the European colonizers.

(72) ... Rabe ā lū lárdə dó
 Rabah 3SG:M:CMPL come country DET:F
Rabah came to the region

(b) [**Rabe só**]_{CS} ndó [blō [n a yā fú]_{RC}]_{CC} dó ...
 Rabah DET:M PRES man MOD:M NEUT:3SG:M become fire CONJ
Rabah was (such) a powerful man that ...

One last piece of evidence in support of the proposed function of the definite determiner comes from an adjectival element with which the definite determiner does not co-occur. I made mention of the adjective *gadé* ‘other’ in section 6.1.2 above. This term refers to an unidentified entity. As such its use would be incompatible with the use of the definite determiner within the same noun phrase since the determiner indicates that the entity it refers to is identifiable.

6.2 Noun modification by a noun

To modify a noun by another noun, Makary Kotoko makes use of a marker which codes the gender/number of the head noun.⁴ As with all noun modification, the head noun comes first. The basic structure is: **HEAD.NOUN MARKER MODIFYING.NOUN**

If the head noun is masculine, the modifying marker is *sə* (NMOD:M). If the head noun is feminine, the modifying marker is *l* (NMOD:F). If the head noun is plural, the modifying marker is *i* (NMOD:PL). The next three examples illustrate this construction with a masculine head noun, feminine head noun, and plural head noun, respectively. I have bolded the noun-noun construction in each case.

Masculine head noun

- (73) *ē* *hōn* ***skó*** ***sə*** ***kən*** *gó* *marágə*
 3PL:CMPL do field NMOD:M bean with RECIP
 They planted a bean field together

⁴ This process is noted in Mahamat (2005:40, 41).

Feminine head noun

- (74) \bar{e} ka dán a **ũda** l wo dó
 3PL:CMPL find 3PL:DO PREP limit NMOD:F village DET:F
They met them at the edge of town

Plural head noun

- (75) u yá gə **amefú** i **ēni** dəge
 NEUT:1SG want PREP gruel NMOD:PL milk INTENS
I really want milk gruel

In some cases, the meaning of the noun-noun construction is not immediately obvious from the meanings of the component parts, as shown in the following examples.

Expression			Meaning
nglí penis	sə NMOD:M	kóró donkey	<i>mushroom</i>
mbóló stool	l NMOD:F	we neck	<i>bone at base of neck</i>
sāw stick	l NMOD:F	kóró donkey	<i>donkey hitching post</i>
fər-e room-PL	i NMOD:PL	skí blood	<i>veins</i>
jár-e tooth-PL	i NMOD:PL	fú fire	<i>embers</i>
wa thing:CONC:PL	i NMOD:PL	lāla fields	<i>wild game</i> <i>(i.e., wild animals that are hunted for food)</i>
fər-e room-PL	i NMOD:PL	mbálē arm:PL	<i>space between the shoulder blades</i>

Table 6.5 Noun-noun construction

Before moving on, I briefly present three arguments against treating these modifying markers as prepositions (which would be one possible analytical approach, and which may be suggested by the English translations). First, when the elements I call prepositions (e.g. the comitative preposition *gó*

‘with’, or the locative preposition *a* (PREP)) modify a noun, the other set of modifying markers is used (*ro* (MOD:F), *n* (MOD:M/PL)) to introduce the prepositional phrase, as shown below.

- (76) *mēgə n a wo dó*
 people MOD:PL PREP village DET:F
People of the village

Second, the terms that I have called prepositions are not sensitive to the gender/number of the noun they modify, as these markers are. Third, while the terms I call prepositions can function as nominal modifiers and as clausal modifiers, the modifying markers described here only occur between two nouns. For these reasons, I don’t treat these markers as prepositions but as grammatical markers which are required when modifying a noun by another noun. With noun-noun constructions, it is possible to independently modify (i) the head noun, (ii) the modifying noun, or (iii) the noun-noun construction as a whole in various ways. I present each of these possibilities in turn.

6.2.1 Modication of the head noun

The head noun can be modified independently by a possessive determiner, the whole of which is modified by the modifying noun, as shown below.

- (77) *nyi ro-g-u l tíā dó da*
 thing:ABSTR MOD:F-POSS-1SG NMOD:F olden.times DET:F CONTR
What I used to do in olden times is what

- (b) *ndá-w do ní*
 INCMPL-1SG take L.P.
I continue to do

The head noun can be independently modified by an adjective, the whole of which is modified by the modifying noun.

- (78) **lé** **ʃamé** i ázar yó da ē lū
 child:PL small:PL NMOD:PL late.afternoon DET:PL CONTR 3PL:CMPL come
It's the small children of the late afternoon (i.e., troublemakers) that have come

6.2.2 Modification of the modifying noun

The modifying noun can be independently possessed and marked with the definite determiner as shown in the next example. Note that the possessive determiner has the feminine modifying marker (*ro* (MOD:F)) which agrees in gender with the modifying noun (*wo* 'village') and not the head noun (*tōlu* 'road') which is masculine. Also note the two definite determiners at the end of the example. The first is feminine, agreeing in gender with the modifying noun. The second is masculine, agreeing with the gender of the head noun.

- (79) **tōlu** sə **wo** **ro-gə-mo** **dó** só
 road NMOD:M village MOD:F-POSS-1PL:INCL DET:F DET:M
The road (that passes) by our village

The modifying noun can be modified by an adjective independent of the head noun. In this next example the head noun is feminine in gender. The modifying noun makes reference to the concept of 'cow' but in a collective sense (i.e., group of cows). It is not marked for plurality but the adjective that modifies it is.

- (80) **ló** l **ʃá** **n** **damo**
 child NMOD:F cow(s) MOD:PL big:PL
child of big cows

The modifying noun can be independently modified by a numeral. In this next example the numeral

dúbú ‘thousand’ modifies the feathers, not the bird.

- (81) yá gə séló sə **fáskē** **dúbú**
 IMP:2SG:want PREP bird NMOD:M feathers thousand
Look for a bird with a thousand feathers

The modifying ‘noun’ can be conjoined nouns.

- (82) ansan sə **pílā** **gó** **dīnar**
 fork NMOD:F silver with gold
a silver and gold fork

The modifying noun can also be a proper name. This is shown in both lines of the next example.

- (83) me sə **Waday** ā le wakítā
 sultan NMOD:M Waday 3SG:M:CMPL cut letter
The sultan of Waday wrote a letter

- (b) ā do **fékə** sə **Barno**
 3SG:M:CMPL send.to sheik NMOD:M Borneo
(and) sent (it) to the sheik of Borneo

6.2.3 Modification of the noun-noun construction

The noun-noun construction can be modified as a whole by a possessive determiner, as shown below. Note that the possessive determiner (in line (b)) has the feminine modifying marker (*ro* (MOD:F)) which agrees in gender with the head noun (*mbóló* ‘stool’) and not the modifying noun (*we* ‘neck’) which is masculine.

- (84) ā kó rə sāw
 3SG:M:CMPL hit 3SG:M:IO stick
He_i hit him_k with a stick

- (b) gó-l mbóló l we ro-gə-n dó
 head-NMOD:F stool NMOD:F neck MOD:F-POSS-3SG:M DET:F
on the back of his_k neck

The noun-noun construction can be modified by the non-specific marker. Note that the masculine modifying marker (*n* (MOD:M)) agrees in gender with the head noun (*me* ‘sultan’) and not the modifying noun (*tíā* ‘olden times’) which is of feminine gender.

- (85) me sə tíā n si ā yā gālk'ə
 sultan NMOD:M olden.times MOD:M NONSPEC:M 3SG:M:CMPL become old:M
A certain sultan of olden times grew old

The noun-noun construction can be modified by an adjective, as shown below. Note that the feminine modifying marker (*ro* (MOD:F)) agrees in gender with the head noun (*ngō* ‘place’) and not the modifying noun (*kíé* (fish:PL)) which directly precedes it.

- (86) ē dō də tón a ngō l kíé ro gadé
 3PL:CMPL put 3SG:F:IO ground PREP place NMOD:F fish:PL MOD:F other
They set her up in another fishing place

The noun-noun construction can be modified by a numeral.

- (87) n-ō wē lé i mēywe túlur
 3SG:F:CMPL give.birth.to child:PL NMOD:PL males seven
She gave birth to seven boys

The noun-noun construction can be modified by a prepositional phrase, as shown below.

- (88) [gədəbu dó]_{VCS} [dʒi 1 lāla ro a ts'e]_{VCC}
 antelope DET:F thing:CONC NMOD:F fields MOD:F PREP outside
antelope is a wild animal (that lives) in the bush

The noun-noun construction can be modified by a relative clause as well.

- (89) kída 1 ngénābu [ro nē hān]_{RC} dó
 work NMOD:F suffering NMOD:F 1PL:EXCL:CMPL do DET:F
The difficult work that we did

6.2.4 Additional noun-noun construction details

The head of the noun-noun construction can be pronominally realized, as in both lines of the next example with the 3SG:F independent pronoun. The noun-noun construction is the complement in the juxtaposition construction in each line.

- (90) **A:** [hási ro-ngó dó]_{VCS} [dó 1 garo]_{VCC}
 speed MOD:F-POSS:2SG:M DET:F 3SG:F:IND NMOD:F how.many
How many speeds do you have?

- (b) **B:** [hási ro-g-u dó]_{VCS} [dó 1 gokúro]_{VCC}
 speed MOD:F-POSS-1SG DET:F 3SG:F:IND NMOD:F three
I have three speeds

The pronominal forms *en* (3SG:M/PL) and *no* (3SG:F) can also function as head of the noun-noun construction, as shown in the next two examples.

Head is pronoun *en* (3SG:M)

- (91) ē fā gē-i marágə gó en sə Gambaru só
 3PL:CMPL gather mouth-NMOD:PL RECIP with 3SG:M NMOD:M Gambaru DET:M
They joined (it) together with the one (coming) from Gambaru

Head is pronoun *no* (3SG:F)

- (92) *ján pál a ge n-gá-də yó*
 tooth one PREP mouth MOD:PL-POSS-3SG:F DET:PL

One of the teeth in her mouth

- (b) *n-ō bō ho do no l ftar só*
 3SG:F-CMPL germinate L.P. as 3SG:F NMOD:F lion DET:M

grew out like a lion's (tooth)

It is possible to have a sequence of noun-noun constructions as shown below with the middle noun as the head of the second noun-noun construction, and with that noun-noun construction as the modifier of the first noun.

- (93) *n-ō ha rə sótā l enjé i muru*
 3SG:F-CMPL do:APPL 3SG:M:IO guest.meal NMOD:F bone:PL NMOD:PL fish(SP)

She made him a meal of the bones of (a certain type of) fish

In this section I have presented the coding means used to modify a noun by another noun.

6.3 Summary

In this chapter I have presented the means used to modify a noun. Formally, the basic distinction is between the modification of a noun by elements other than a noun (e.g. possessive determiner, an adjective, the non-specific marker, a prepositional phrase, a relative clause) and the modification of a noun by another noun. Different markers are used for both. For modifiers that are not nouns, the markers *ro* (MOD:F) and *n* (MOD:M/PL) are (generally) used. For modifiers that are nouns, the markers *sə* (NMOD:M), *l* (NMOD:F), and *i* (NMOD:PL) are used. Numerals and non-numeral quantifiers have not been discussed in this section. They are presented in chapter 7.

7 Numerals and non-numeral quantifiers

I address numerals and quantifiers in this section. Numerals and non-numeral quantifiers can function as noun modifiers like adjectives do, but they also exhibit other properties as well, functioning as an argument of the clause, and as a complement in verbal and non-verbal predication.

7.1 Cardinal numbers

A sampling of the decimal counting system of cardinal numbers in Makary Kotoko is given in the following table.

Cardinal		Meaning	Cardinal		Meaning
nté	pál	<i>one</i>	mblo gó te		<i>twenty-one</i>
ansí	gāsi	<i>two</i>	píāskə		<i>thirty</i>
ankró	gokúro	<i>three</i>	mbloskasi		<i>forty</i>
gāde		<i>four</i>	mbloskasi gó kán		<i>fifty</i>
jénsī		<i>five</i>	mbloskokúro		<i>sixty</i>
jéskótē		<i>six</i>	mbloskokúro gó kán		<i>seventy</i>
túlur		<i>seven</i>	mbloskade		<i>eighty</i>
ɕiligade		<i>eight</i>	mbloskade gó kán		<i>ninety</i>
ɕiatála		<i>nine</i>	míá		<i>one hundred</i>
kán		<i>ten</i>	míá l gási		<i>two hundred</i>
kán gó te		<i>eleven</i>	míá l gokúro		<i>three hundred</i>
kán gó gāsi		<i>twelve</i>	dúbú		<i>thousand</i>
mblo		<i>twenty</i>	dúbú l gási		<i>two thousand</i>

Table 7.1 Numerals

There are two forms for the numbers ‘one’, ‘two’, and ‘three’. The first forms given are used when counting (i.e., 1, 2, 3, ...).¹ The second forms are used as a modifier, as in the next example where *pál* ‘one’ modifies *ló* ‘child’.

(1) *ā* *ka* *gōrəm* [*ro*
 3SG:M:CMPL find woman MOD:F
He found a woman that

(b) *ē* *fo* *wi* *n-ō* *wē* ***ló*** ***pál***_{RC}
 3PL:CMPL give:APPL husband 3SG:F-CMPL give.birth.to child one
they had married off and she gave birth to a child

The number *fénsī* ‘five’ is morphologically complex. It appears to be formed from *fé* ‘hand’ and *si* ‘body’ (i.e., hand of body). The intervening nasal has the form of the non-feminine modifying marker *n* (MOD:M/PL) which is used when a head noun is modified by the possessive, the non-specific marker, a modifying prepositional phrase, or a relative clause. Since the head noun (*fé* ‘hand’) is followed by another noun (*si* ‘body’), one would expect, based on the current grammar of the language, that the modifying marker used in the noun-noun construction (in this case, *sə* (NMOD:M)) would occur instead.

The form *fénsī* ‘five’ likely illustrates an archaic piece of grammar.

The number *féskótē* ‘six’ appears to build on the word for ‘five’, formed with *fé* ‘hand’, a linking element *s* (of undetermined origin), the comitative preposition *gó* ‘with’ (with the initial consonant devoiced), and a shortened form of *nté* ‘one’, the whole meaning literally ‘hand and one’. As seen in the

¹ Cf. Mahamat (2005:49, 50) for a list of similar forms.

table above, this shortened form of *nté* also appears in the formation of the numbers eleven, twenty one, etc.

The number *túlor* ‘seven’ is borrowed from Kanuri, as is *pyāskə* ‘thirty’. The number *ǫiligadē* ‘eight’ is built up from *gādē* ‘four’, though the exact meaning of the element *ǫili* is opaque.

The multiples of twenty (i.e., forty, sixty, eighty) are formed combining *mblo* ‘twenty’, the linking element *s*, and the appropriate multiplier (i.e., *gāsi* ‘two’, *gokúro* ‘three’, *gādē* ‘four’, with the initial consonant devoiced). In practice, for the multiples of ten from forty and up, the Shoa Arabic terms are used instead of the indigenous terms given, particularly in the market context.

The number *míá* ‘hundred’ is borrowed (possibly from Kanuri or Shoa Arabic), as is *dúbú* ‘thousand’ (possibly from Kanuri or Hausa or elsewhere). Multiples of both are formed using the noun-noun construction (discussed in section 6.2), as shown in the following example.

(2) *ā* *bo* *fā-e* ***míá*** ***l*** ***gokúro***
 3SG:M:CMPL have year-PL hundred NMOD:F three
He lived to be three hundred years old

(b) *sórāngí* *ā* *mādō*
 before 3SG:M:CMPL die
before he died

The expression *kán gó fénsi* ‘fifteen’ when modifying days refers to a two week period of time.

(3) *nondó* *ē* *bo* *do* ***nsê*** ***kán*** ***gó*** ***fénsi*** *k'ani* ...
 in.this.way 3PL:CMPL have MMR day:PL ten with five CONJ
They spent two weeks like that then ...

Descriptive adjectives (cf. section 6.1.2) can occur with or without the modifying marker (*ro* (MOD:F), *n* (MOD:M/PL)). With numerals, the modifying marker only occurs if the head noun is determined.

Compare the next two examples. The first example is the opening line to the narrative. In keeping with the function of the determiner to mark the referent of a noun as identifiable, no determiner is used since this is the first mention of the participants of the narrative.

Numeral modifies indefinite noun with no modifying marker

- (4) ftar da dəmo gó lé gokúro
 lion CONTR sheep with child:PL three
Lion, sheep and (her) three children

- (b) n-ō sī rə do wi-só-də
 3SG:F-CMPL take 3SG:M:DO as husband-LINK-3SG:F
she took him (i.e., the lion) as her husband

Only slightly further on in the story the three children are spoken of again. Since they are identifiable, the definite determiner is used. Since the determiner is used, the modifying marker also occurs.

Numeral modifies definite noun with modifying marker

- (5) mafi ā ndə dəmo gó lé n gokúro yó
 hyena 3SG:M:CMPL see sheep with child:PL MOD:PL three DET:PL
Hyena saw sheep and the three children

When numerals greater than one modify a noun, the noun is generally coded for plurality as shown in examples (4) and (5) for instance. There are, however, instances in the corpus where the noun remains in the singular, as shown in line (b) of the next example, where both the noun and the demonstrative determiner are in the singular.

- (6) we gə rə gí
 NEUT:2PL say 3SG:M:IO COMP
Tell him,

- (b) **bəskon** n **gāde** **nda** **só** ā ka lə aro ...
 horse MOD:M four DEM:M DET:M 3SG:M:CMPL find PRO CONJ
“Those four horses, if he finds them then ...”

Further on in the story the same phrase is used but this time the head noun is in the plural (as is the demonstrative determiner).

- (7) a gə gí
 NEUT:2PL say COMP
He said,

- (b) **bəskór-ē** n **gāde** **nde** **yó** g-ō ka lə aro ...
 horse-PL MOD:PL four DEM:PL DET:PL 2SG:CMPL find PRO CONJ
“Those four horses, if you find them then ...”

In each of the examples to this point, the head noun has been expressed. This need not be. In some cases it is in pre-subject position, in others it is understood by context. In this next example, the head noun is in pre-subject position and marked with the contrastive focus marker *da*. The modifying numeral occurs in the canonical direct object position, functioning pronominally, referring back to the noun phrase in pre-subject position.

Head noun is in pre-subject position

- (8) **lé** **n-gə-mo** **yó** **da** m sī **pál**
 child:PL MOD:PL-POSS-1PL:INCL DET:PL CONTR NEUT:1PL:INCL take one
Our children, let's take one

In the next example, the ‘head noun’ is recoverable by context. The context is that a jackal has been captured by some hunters who tie him to a tree. They plan to continue their hunt and return to get the

jackal later on. A hyena comes along and asks the jackal why he's tied to a tree. The jackal explains that he's the imam for the people of a nearby village. He leads them in their prayers and in exchange they feed him a goat each day. The hyena then asks what the people of the village would do for him if he were the village imam. The jackal replies that they would feed him two goats a day.

Head noun is understood by context

- (9) kən só m-í la kən **gāsi**
 2SG:M:IND DET:M IRR-3PL kill 2SG:M:IO two
You, they'll kill two (goats) for you

When the numeral *gāsi* 'two' is the object of the preposition *do* 'as', the prepositional phrase indicates that the action expressed in the clause happens for a second time.

- (10) gáko dó ē bó marágə **do** **gāsi** k'ani ...
 front DET:F 3PL:CMPL pierce RECIP as two CONJ
Next, they began to fight for a second time and ...

Numerals can be (fully) reduplicated. The meaning of the reduplication is that the action expressed in the clause is distributed to each of the referents referred to by the head noun, as shown in the next example.

- (11) a n-fé lé n-gə-n yó
 NEUT:3SG:M PL-put child:PL MOD:PL-POSS-3SG:M DET:PL
He called his children

- (b) a n-ďó dan gēre **pál** **pál**
 NEUT:3SG:M PL-put 3PL:IO commission one one
and gave each of them a task (to do)

Numerals can function as the complement in non-verbal predication, as in the next example where the numeral is the complement in the juxtaposition construction (cf. section 21.1). Note in this next example that it is possible to pluralize numerals.

- (12) [álge [n ē dží tən]_{RC} yó]_{VCS} **dúbú-é**]_{VCC}
 person:PL MOD:PL 3PL:CMPL remain ground DET:PL thousand-PL
The (number of) people who died was in the thousands

Numerals can also function as a complement of verbal predication as well. In this next example, the numeral *pál* ‘one’ occurs after the locative particle, which is the typical position for adverbs.

- (13) **A:** ā dží he **garo**
 3SG:M:CMPL remain L.P. how many
“How many remain?”
- (b) **B:** a gə rə gí ā dží he **pál**
 NEUT:3SG:M say 3SG:M:IO COMP 3SG:M:CMPL remain L.P. one
He said to him, “(Only) one remains”

7.2 Ordinal numbers

The ordinal number *gay* ‘first’ can occur as the modifying noun in the noun-noun construction.

- (14) **A:** [no 1 **gay dó**]_{VCS} [no le]_{VCC}
 3SG:F NMOD:F first DET:F 3SG:F what
What’s the first one?
- (b) **B:** no 1 **gay dó** jímū n-gé-də do ...
 3SG:F NMOD:F first DET:F name MOD:M-POSS-3SG:F as
The first one, it’s name is ...

It can also occur as the object of a preposition, indicating what is to be done first.

- (15) don da la n a gay sórāngí la rə
 1SG:IND CONTR IMP:2SG kill 1SG:DO PREP first before IMP:2SG:kill 3SG:M:DO
Kill me first before killing him

The construction of all other ordinal numbers is done by placing the cardinal number in a relative clause construction with the verb *hən* ‘do, make’, as shown in the next example.

- (16) blō [n a hən gokúro]_{RC} só de
 man MOD:M NEUT:3SG:M do three DET:M S.R.
The third man

- (b) ā hó də fasó ho
 3SG:M:CMPL put 3SG:F:IO air L.P.
raised her back to life

When the head noun is an indication of time, like *sé* ‘day’, this same construction can be used to give the temporal framework for the succeeding action.

- (17) sé [ro əl hən gāsi]_{RC} k^lani ...
 day MOD:F NEUT:3SG:F do two CONJ
The next day ...

7.3 Non-numeral quantifiers

A small group of modifying elements that generally indicate a quantity of the referent of the head noun behave somewhat differently from descriptive adjectives. These include *fogé* ‘all’, *kádǎgé* ‘a lot’, *k^lǎjǐ* ‘small, few’, and *lāke* ‘each, every’ among others. While adjectives are coded for plurality when the noun they modify is plural, these elements aren’t coded for plurality. Consider the next two examples containing *kádǎgé* ‘a lot’. In the first, the head noun is singular. In the second it is plural. Unlike adjectives, the form of the quantifier does not change with a plural head noun.

kádǎǎǎ ‘a lot’ modifying singular head noun

- (18) gúr̥sə ro **kádǎǎǎ** ro dó
 money MOD:F a.lot DEM:F DET:F
this large amount of money

kádǎǎǎ ‘a lot’ modifying plural head noun

- (19) mēywe n **kádǎǎǎ** nde yó
 males MOD:PL a.lot DEM:PL DET:PL
this large number of men

As noted in section 6.1.6, the demonstrative determiner and the definite determiner do not normally co-occur in the same noun phrase. This next example is exceptional in that the quantifier *fogǎ* ‘all’ modifies the head noun, but it follows the demonstrative determiner and precedes the definite determiner.

- (20) ló n-g-u wa **nde** yó **fogǎ** yó ...
 child MOD:M thing:CONC:PL DEM:PL DET:PL all DET:PL
My son, all these things ...

A similar pattern is shown below with the adverb *kál* ‘exactly’ functioning as a noun phrase modifier.

In this case, the definite determiner occurs twice – once before and once after *kál* ‘exactly’.

- (21) **nāme** yó **kál** yó we dár he
 rope DET:PL exactly DET:PL NEUT:2PL loosen L.P.
At least loosen the rope

Quantifiers can modify an argument of the clause but can occur clause finally, the typical position for adverbs. In this next example the noun phrase in pre-subject position is modified by the quantifier which occurs clause finally.

- (22) nəmân dó ē đji ho **fogó**
 money DET:F 3PL:CMPL remove L.P. all
They removed all the money

Quantifiers can also function as clause-level modifiers. In this next example, the term *k'ájí* 'small, few' occurs clause finally functioning adverbially.

- (23) a dǎ ga ts'e **k'ájí**
 NEUT:3SG:M put mouth outside little
He put his mouth outside a little

Like numerals, quantifiers can act like pronominal arguments of the clause, referring to a noun phrase in pre-subject position or to a referent that is understood by context.

- (24) nde yó ā n-sí **fogó**
 DEM:PL DET:PL 3SG:M:CMPL PL-take all
Those (things), he took all (of them)

Also like numerals, quantifiers can be (fully) reduplicated. In this case, the reduplication intensifies the quantity indicated.

- (25) ē gē **fogó fogó**
 3PL:CMPL be.finished all all
They were completely gone

Quantifiers can also function as complements in non-verbal predication, as below where the quantifier *kádǎgó* 'a lot' is the complement in the juxtaposition construction.

- (26) [amsó n-gə-n]_{VCS} [kádǎgó]_{VCC}
 word MOD:M-POSS-3SG:M a.lot
He talks a lot (lit. his words a lot)

7.4 Summary

In this section, I have presented the properties of numerals and non-numeral quantifiers. Numerals can modify a head noun. When the head noun is indefinite, no modifying marker is used between the head noun and the numeral. However, when the head noun is definite, the modifying marker always occurs.

Numerals can fill an argument position of the clause, acting pronominally, and referring to a previously mentioned or understood noun phrase. Numerals can be reduplicated, often indicating that the action of the clause is carried out distributively over the referents of the noun phrase that the numeral refers to.

Numerals can function as complements in verbal and non-verbal predication as well. Quantifiers exhibit similar properties to numerals. Unlike descriptive adjectives, quantifiers do not code for the plurality of the head noun. They can function as modifiers both within the noun phrase and at the clause-level. Like numerals, they can fill an argument position of the clause, acting pronominally, and referring to a previously mentioned or understood noun phrase. They can also be reduplicated, which intensifies the quantity indicated. Quantifiers can also function as complements in non-verbal predication.

8 Asymmetric coordination

In this chapter I present the phenomenon of asymmetric coordination in Makary Kotoko. This is also referred to as ‘pronoun elaboration’ by Dixon (2010b:207-2010) and ‘inclusory pronominals’ by Lichtenberk (2000). As yet, the function of this type of coordination for Makary Kotoko in contrast to symmetric coordination is unclear. I use the expression ‘asymmetric coordination’ to refer to instances in the corpus where the human referent of the NP object of the comitative preposition *gó* ‘with’ has already been included in a previous (pronominal) plural reference within the clause. The plural pronominal reference can be any of the four possibilities: 1PL:INCL, 1PL:EXCL, 2PL, or 3PL. In the Makary Kotoko data, the plural pronominal reference always precedes the NP object of the comitative preposition *gó* ‘with’. Consider the following example. I have bolded the two noun phrases that occur in pre-subject position and are conjoined with the comitative preposition *gó* ‘with’. The first is the 1PL:INCL independent pronoun. By context, it is understood that one of referents of this pronoun is also referred to by the 2SG:F independent pronoun *tó*. As such, the referent of the object of the comitative preposition is mentioned twice, once as one of the referents of the 1PL:INCL independent pronoun, and again as the object of the comitative preposition. That is why this is referred to as ‘asymmetric coordination’. Dixon’s term of ‘pronoun elaboration’ also seems appropriate as the NP object of the comitative preposition elaborates on one of the references of the plural pronoun.

Asymmetric coordination: conjoined NPs, co-referential with the subject marker

- (1) **mo** **gó** **tó** mō gē
 1PL:INCL:IND with 2SG:F:IND 1PL:INCL:CMPL be.finished
You and I are through (i.e., I divorce you)
(lit. Us with you we're finished)

Asymmetric coordination is seen in four patterns in the language, all involving the comitative preposition *gó* ‘with’: (i) two noun phrases (the first with (pronominal) plural reference, the second with singular human reference) in pre-subject position are conjoined with the comitative preposition and are co-referential with the subject marker of the clause (as in example (1) above, and (2) below), (ii) the subject marker has plural reference and the comitative preposition and its singular (human) object come after the verb, (iii) the direct object pronoun with plural reference is followed by the comitative preposition and its singular (human) object, and (iv) an argument of the clause has a plural possessor which is followed by the comitative preposition and its singular (human) object. I illustrate each type below.

8.1 Asymmetric coordination with conjoined noun phrases

In the next example, the asymmetric coordination occurs at the beginning of line (b) (bolded).

The 3PL independent pronoun (bolded) is conjoined to the possessed noun *sabâ* ‘friend’.

Asymmetric coordination: conjoined NPs, co-referential with the subject marker

- (2) **lūdō** ro so dāmá
 yesterday MOD:F NONSPEC:F ADVERS
Just the day before yesterday

- (b) **dén** **gó** **sabâ** **n-gə-n** ē la náskū ē fá
 3PL:IND with friend MOD:M-POSS-3SG:M 3PL:CMPL kill soul 3PL:CMPL bury
he and his friend killed someone and buried (him)
(lit. they and his friend ...)

One could ask how it is known that the referents of the 3PL independent pronoun actually include the referent of the object of the comitative preposition. Could it not be, for instance, that the referents of the 3PL independent pronoun are distinct from the referent of the object of the comitative preposition? Such cases are indeed possible and present within the corpus. However, there are also cases in the corpus where, at the point when plural reference is made, there is only one relevant referent in the context. The plural reference is not ‘saturated’ until the object of the comitative preposition is given.

Contrast the preceding example with the following one which comes from an earlier portion of the same text. As above, there are two conjoined noun phrases. Each noun phrase has a distinct (singular) referent. As such the coordination is ‘symmetric’.

Symmetric coordination: conjoined NPs, co-referential with the subject marker

- (3) k'ani **dan** **gó** **sabâ** **n-gə-n** e i bərkô marága
 CONJ 3SG:M:IND with friend MOD:M-POSS-3SG:M 3PL:CMPL snatch crafty RECIP
Then he and his friend came up with a devious plan

8.2 Asymmetric coordination with plural subject

The asymmetric coordination pattern can be used with a plural subject marker and a comitative preposition argument after the verb. The comitative preposition argument is co-referential with one of the referents referred to by the plural subject marker. This can be seen in line (b) of the next example.

Note in the first line that speaker A addresses a singular referent, but speaker B (in line (b)) replies in the plural.

Asymmetric coordination: subject of clause

(4) **A:** g-ō lū sό le
 2SG-CMPL come day what
 When did you come?

(b) **B:** nē lū gό lό m sό
 1PL:EXCL:CMPL come with child MOD:M:POSS:2SG:F DET:M
 I came with your son
 (lit. we came with your son)

8.3 Asymmetric coordination with plural direct object

The asymmetric coordination pattern occurs with a plural direct object pronoun and a following comitative preposition argument which is co-referential with one of the referents referred to by the plural direct object pronoun. This can be seen in line (b) of the next example.

Asymmetric coordination: direct object of clause

(5) k'ani w-ō ka gōlk'ə a hó aro
 CONJ 1SG-CMPL find old:M PREP house CONJ
 If I find an old man at (his) home then

(b) m-ú la **dán** **gό** **lό** **sό** fogό
 IRR-1SG kill 3PL:DO with son DET:M all
 I'll kill both him and his son
 (lit. I'll kill them with the son all)

8.4 Asymmetric coordination with plural possessor

The asymmetric coordination pattern can also occur with a plural possessor and a following comitative preposition argument which is co-referential with one of the referents referred to by the

plural possessive determiner. This can be seen in the next example which is an instance of the juxtaposition construction.

Asymmetric coordination: possessor of NP

- (6) [ndo dó]_{VCS} [no-gó-**ne** **gó** **sabâ** **ro-g-u**]_{VCC}
 DEM:F DET:F 3SG:F-POSS-1PL:EXCL with friend MOD:F-POSS-1SG
That one is mine and my friend's
(lit. That one ours and my friend)

The next example, without asymmetric coordination, occurs just a little earlier in the text in which example (6) above occurs. Note that the two are of identical structure with the exception of the asymmetric coordination pattern used in (6) and the symmetric coordination pattern used in (7).

Symmetric coordination: possessor of NP

- (7) [ndo dó]_{VCS} [no-g-**u** **gó** **saba** **ro-g-u**]_{VCC}
 DEM:F DET:F 3SG:F-POSS-1SG with friend MOD:F-POSS-1SG
That one is mine and my friend's

The paired examples (3) and (2), and (7) and (6) (occurring in that order in the corresponding texts), where the first makes use of symmetric coordination and the second makes use of asymmetric coordination, might suggest that the asymmetric coordination pattern is used when the referents have been previously mentioned/established in the discourse. That this is not in fact a requirement on the use of the asymmetric coordination pattern can be seen in line (b) of the next example which occurs as the first line of the story and makes use of the asymmetric coordination pattern. This is another instance of type (ii) above (i.e., the subject marker has plural reference and the comitative preposition and its singular (human) object come after the verb).

Asymmetric coordination at the beginning of a story

- (8) [mā ro so]_{CS} gó [ngwən dāmo]_{CC} da
 woman MOD:F NONSPEC:F with stomach big CONTR

A very pregnant woman

- (b) ndá-y dā gē-i gúlo gó kéymí ro-gó-də
 INCMPL:3PL go mouth-NMOD:PL river with co-wife MOD:F-POSS-3SG:F

went to the river with her co-wife

(lit. they went to the river with her co-wife)

The aspect/mode of the clause has no bearing on the use/non-use of the asymmetric coordination pattern as can be seen from examples (2), (5), and (8) which have completive aspect, irrealis mode, and incomplete aspect, respectively.

8.5 Summary

In this chapter I have presented asymmetric coordination in Makary Kotoko. Though the function of this construction in contrast to symmetric coordination is as yet unclear, I have shown that it occurs in four particular patterns in the language: (i) with conjoined noun phrases in pre-subject position, (ii) with a plural subject, (iii) with a plural direct object, and (iv) with a plural possessor.

9 Thing

There are two highly frequent words in Makary Kotoko which would be translated by the word ‘thing’ in English: *ɕi* and *nyi*. The plural of *ɕi* is the suppletive form *wa*, while the plural of *nyi* is regularly formed with the plural suffix /-e/: *nyie*. These can be used anaphorically to refer to something previously mentioned in the discourse, or to refer to something that has not been mentioned in the discourse. I propose that the function of *ɕi* is to refer to concrete entities while the function of *nyi* is to refer to abstract entities. I present the evidence in support of these proposed functions and then examine whether this basic ontological distinction in Makary Kotoko could be subsumed under a distinction proposed in Frajzyngier (1991) between the domain of reality (domain *de re*) and the domain of speech (domain *de dicto*).

9.1 Concrete thing

In the corpus, the word *ɕi* (and its plural form *wa*) can refer to physical objects such as bowls, containers, pots, money, possessions, bean ash, food, edible things, menstruating fluids, sauce, puss, grain, whipping lash, medication, etc. In this next example, it refers to a water pot. The water pot is mentioned in the first line. The word *ɕi* occurs in line (b), and it is understood that it refers to the previously mentioned water pot.

- (1) ā bō ts'e k'ani ndó lówó a gə gí há
 3SG:M:CMPL pierce outside CONJ PRES clay.jar NEUT:3SG:M say COMP INTERJ
He burst outside and (saw that) it was a clay jar. He said, “Ha!

- (b) **ɕi** ró da n-ō ga g-u lé n-g-u
 thing:CONC DEM:F CONTR 3SG:F-CMPL finish PREP-1SG child:PL MOD:PL-POSS-1SG
Is it that thing that took my children

- (c) gó gōrəm ro-g-u wo
 with woman MOD:F-POSS-1SG POL
and wife from me?"

The term *ɕi* is also used frequently to refer to animals (living or dead) (e.g. horse, ram, gazelle, crocodile, squirrel, sheep, monitor lizard, antelope, rabbit, cow, wild game). In this next example *ɕi* refers to the sultan's ram. The ram has been mentioned earlier in the text.

- (2) [**ɕi** ró]_{CS} ndó [sam n-gə me só]_{CC} da
 thing:CONC DEM:F PRES ram MOD:M-POSS sultan DET:M CONTR
This thing is the sultan's ram that

- (b) w-ō sī héy-sən
 1SG-CMPL take thief-NOM
I stole

Certain living beings (e.g. monster, baby, slave boy, a voice from the grave) are also referred to with *ɕi*. In this example, *ɕi* refers to an unborn child. The child wasn't specifically mentioned before this point in the text, but his pregnant mother was.

- (3) **ɕi** ro a ngwən dó əl gə gí íya
 thing:CONC MOD:F PREP stomach DET:F NEUT:3SG:F say COMP mother
The fetus inside said, "Mommy"

In some cases, it is not clear what exactly *ɕi* refers to, but it is, nonetheless, understood as some physical object. In this next example the referent of the subject marker hits the referent of the

indirect object pronoun with something. It is not known what that ‘something’ is. This is the first mention of the thing in the text.

- (4) aro a kə də **ɕi** gəb
 CONJ NEUT:3SG:M hit 3SG:F:IO thing:CONC IDEO
Then he hit her with something pow!

The term *ɕi* can refer to speech. In almost all cases when it does, it is used in an interrogative context, questioning what was said.

- (5) abá n-gə-ne só
 father MOD:M-POSS-1PL:EXCL DET:M
My father_i,

- (b) ā gə to gí **ɕi** le
 3SG:M:CMPL say 2SG:F:IO COMP thing:CONC what
what did he_i say to you?

However, it is not exclusively used in an interrogative context in reference to speech. In this next example, the plural of *ɕi* (*wa*) refers to the words of an incantation that are spoken and which are able to send the speaker into the underworld.

- (6) ā hən **wa** n-gə-dan [n nde lə
 3SG:M:CMPL do thing:CONC:PL MOD:PL-POSS-3PL MOD:PL be.at:PL PRO
He did their things (i.e., incantations)

- (b) ndá-y hən aro sərāngí i bo do tən]_{RC} yó
 INCMPL:3PL do CONJ before NEUT:3PL pierce MMR ground DET:PL
that they do before they enter the underworld

In the next example *ɕi* refers not to speech per se but to the pronunciation of a particular word. The context of this example is that a lion is making a series of girls say a word – actually a nonsensical sequence of sounds (*haiyehelungutʃ'o*) – so he can get a look at the inside of their mouths in order to determine which of them has a lion's tooth (and will thus become his wife). The term *ɕi* in line (b) refers back to the sequence of sounds given in the first line.

(7) əl lū haiyehelungutʃ'o
 NEUT:3SG:F come haiyehelungutʃ'o
She came (and said) "haiyehelungutʃ'o"

(b) aro yá **ɕi** ró tó dó gə sən
 CONJ INTERJ thing:CONC DEM:F 2SG:F:IND DET:F NEUT:2SG know
Then, "Ha! You know this thing (i.e., expression)"

Although the large majority of examples indicate that *ɕi* refers to a concrete entity, there are two examples in the corpus where *ɕi* refers to elements that we might categorize as abstract: 'suffering' and 'trouble'. These are illustrated below. In both instances the word *ɕi* is part of the complement of a non-verbal predication. The element that *ɕi* refers to is the subject of the non-verbal predication. Both terms are borrowings from Kanuri.

The word *ngənəbu* 'suffering' referred to as *ɕi* (in line (c))

(8) blō [n a ʃin gə
 man MOD:M NEUT:3SG:M hear PREP
The man who doesn't listen to

(b) amsə n-gə abá n-gə-dan wa]_{RC} só
 word MOD:M-POSS father MOD:M-POSS-3PL NEG DET:M
the advice of his father,

- (c) [ngánābu da]_{CS} ndó [ɕi ro-gə-n]_{CC}
 suffering CONTR PRES thing:CONC MOD:F-POSS-3SG:M
suffering is his portion

The word *fitāna* ‘trouble’ (borrowed from Arabic via Kanuri) referred to as *ɕi* (in line (b))

- (9) n-ō bo mbársē wa
 3SG:F-CMPL have trust NEG
You can't trust her
(i.e., an older, unmarried woman)

- (b) [fitāna dó]_{VCS} [ɕi ro-gó-dan]_{VCC} haɕáala-e yó
 trouble DET:F thing:CONC MOD:F-POSS-3PL old.unmarried.woman-PL DET:PL
Trouble is their thing, old unmarried women

9.2 Abstract thing

The word *nyi* refers to abstract entities. It can, for instance, refer to a situation. In this next example, the speaker is not referring to some physical thing that might be found, but to events that might occur. What exactly *nyi* refers to is not mentioned in the text.

- (10) **nyi** ro nē ka lə aro mǎ-ne gə kən
 thing:ABSTR MOD:F 1PL:EXCL:CMPL find PRO CONJ IRR-1PL:EXCL say 2SG:M:IO
What (news) we find we'll tell you

- (b) aro mǎ-g dǎ ní gə gə dan
 CONJ IRR-2SG go L.P. NEUT:2SG say 3PL:IO
then you'll go tell them

The term *nyi* can refer to actions as well. In this next example, *nyi* refers back to a previously mentioned good act that the addressee performed for the speaker.

- (11) yá-w básə kən **nyi** [ro g-ō hən]_{RC} dó
 VOL-1SG pay.back 2SG:M:IO thing:ABSTR MOD:F 2SG-CMPL do DET:F
I want to pay you back for what you did (for me)

The word *nyi* refers to an action/behavior in this next example. In this case the action/behavior has not been mentioned at this point in the narrative.

- (12) **nyi** [ro a yá gó-də wa]_{RC} dó
 thing:ABSTR MOD:F NEUT:3SG:M want PREP-3SG:F NEG DET:F
What he doesn't want (others to do to him)

- (b) a kō ho gí m ʃin gó
 NEUT:3SG:M tell L.P. COMP NEUT:1PL:INCL hear PREP
he should tell (us)

Since it refers to abstract entities, *nyi* can be used to refer to the means/manner/reason for the clause in which it occurs. The coding of means/manner/reason using the marker *do* in non-interrogative contexts is described in section 19.2. The literal translation of the next example would be something like “I’ll put you by a thing that you’ll find by it your head”. What *nyi* refers to (i.e., what means the speaker would suggest) is not given at this point in the narrative.

- (13) m-ú d̄ə kən gē-i **nyi** [ro
 IRR-1SG put 2SG:M:IO mouth-NMOD:PL thing:ABSTR MOD:F
I’ll let you know of a way by which

- (b) má-g ka do gó ro-ngó]_{RC} wá
 IRR-2SG find MMR head MOD:F-POSS:2SG:M TAG
you can save yourself

In this next example *nyi* in line (b) refers to the reason why the speaker prevented the addressees from doing something. That reason is given in the first line.

- (14) wē sī gə ngō ró aro má-we k'ō lə
 2PL:CMPL take PREP place DEM:F CONJ IRR-2PL fall PRO
If you pass by here, you'll fall into them (i.e., holes)

- (b) ndó nyi ró da w-ō ha re yó go
 PRES thing:ABSTR DEM:F CONTR 1SG-CMPL forbid 2PL:IO L.P. PREP
That's why I forbade you

Like *ɕi*, *nyi* can also refer to speech. When *nyi* refers to speech, however, it seems to refer more to the meaning of what was said as opposed to what was actually said (i.e., the words produced) as appears to be the case for *ɕi*. In this next example the speaker is telling the addressee that the warning the addressee's father had given him has come to pass.

- (15) nyi [ro abá n ā gə kən]_{RC} dó
 thing:ABSTR MOD:F father MOD:M:POSS:2PL 3SG:M:CMPL say 2SG:M:IO DET:F
What your father said to you

- (b) da n-ō lū wá
 CONTR 3SG:F-CMPL come TAG
has come to pass, hasn't it?

When *ɕi* and *nyi* refer to speech, the basic distinction in their use appears to follow along Saussurean lines. That is, *ɕi* refers to the *signifiant*, while *nyi* refers to the *signifié*.

This final example is from the same text as example (6) above. Both *wa* (the plural of *ɕi*) in (6) and *nyi* in the next example refer to the incantations that are used in order to enter the underworld. If my proposal for the distinction between *ɕi* and *nyi* is accurate, then the use of *wa* in (6) would refer to the actual words said, while the use of *nyi* below would refer to the meaning that was produced by saying the words, giving the woman access to the underworld.

(16) dǎ de n-ō gə gara **nyi** ro-gə-n dǎ
 3SG:F:IND S.R. 3SG:F-CMPL say like thing:ABSTR MOD:F-POSS-3SG:M DET:F
As for her, she said like what he said

(b) k'ani n-ō bo tǎn n-ō kadǎ rə
 CONJ 3SG:F-CMPL pierce ground 3SG:F-CMPL follow 3SG:M:DO
then she entered the underworld and followed him

9.3 Domain *de dicto* and domain *de re*

Frajzyngier (1991, 1997) proposes that some languages make a formal distinction between the domain of reality (which he refers to as the domain *de re*) and the domain of speech (called the domain *de dicto*). If I understand correctly, anaphoric markers would be in the domain *de dicto* since they refer to something previously mentioned within speech, while deictic markers would be in the domain *de re*, pointing to things in the real world. Two areas in which this distinction is claimed to exist are in (i) the marking of embedded clauses, and in (ii) the system of reference. Frajzyngier (1991) proposes that by recognizing a domain *de dicto* in language “one can explain functional syncretisms and provide an explanation for the similarity of various morphemes considered hitherto as unrelated” (Frajzyngier 1991:220). For instance, he notes that in many languages there is a “partial or complete overlap in the forms that function as complementizers, definite markers, and relative clause markers” (ibid:236). The proposed reason for the overlap would be because these markers actually code the same *de dicto* domain, but in different areas of the grammar. At issue here is whether the lexical distinction *ǝi/nyi* of Makary Kotoko could be an instantiation of the *de re/de dicto* distinction that Frajzyngier (1991) proposes. For that to be the case, it would seem that one of the terms would need to be used exclusively

when referring to something that has already been mentioned in the narrative, while the other would only be used to refer to entities in the real world. If both terms were used for both previously mentioned entities and for entities in the real world that had not been mentioned in speech, then this would give evidence against the *ɕi/nyi* distinction being an instantiation of the *de re/de dicto* distinction. In the examples given above, I have consistently noted whether the entity that *ɕi* or *nyi* refers to had been mentioned earlier in the text or not. For both terms there were instances where the entity referred to by *ɕi/nyi* was mentioned previously in the text (cf. example (1) for *ɕi* and example (11) for *nyi*), as well as instances where the entity referred to by *ɕi/nyi* was a real world entity that had not been mentioned in the narrative (cf. example (4) for *ɕi* and example (10) for *nyi*). This would strongly suggest that the *ɕi/nyi* distinction of Makary Kotoko cannot be subsumed under the *de re/de dicto* distinction that Frajzyngier (1991, 1997) proposes.

9.4 Summary

In this section I have presented two nouns in Makary Kotoko which give evidence of a basic distinction coded in the language between concrete entities (marked with *ɕi*) and abstract entities (marked with *nyi*). Concrete entities included, physical objects, animals, living beings, and speech. Abstract entities included situations, events, actions, means, reason, and speech as well. Though both terms can refer to speech, the proposed distinction was that *ɕi* refers to what was said, and *nyi* refers to the meaning of what was said. Finally, it was shown that the *ɕi/nyi* distinction of Makary Kotoko does not represent an instantiation of the broader *de re/de dicto* distinction proposed by Frajzyngier (1991).

10 Adverbs and Ideophones

In this chapter I present adverbs and ideophones. Adverbs and ideophones have no inherent features (like gender for nouns, or argument structure for verbs) and take no morphology (like the plural suffix /-e/ for nouns and adjectives, or the infinitive suffix /-n/ for verbs). What sets adverbs and ideophones apart is their position within the clause and their function as clause-level modifiers, generally contributing temporal, epistemic, and manner information. In what follows I describe in turn: (i) temporal adverbs, (ii) epistemic adverbs, (iii) manner adverbs, and (iv) ideophones. Prepositions and locative specifiers which can contribute locative information to the clause are described in chapter 11. Local adverbial demonstratives, which situate an entity at a relative location, are described in chapter 12. Adverbs which provide temporal or epistemic information to the clause generally occur clause-initially. Adverbs which contribute information about the manner in which the situation of the clause is carried out generally occur clause-finally. Ideophones usually occur in the same position as manner adverbs, but are distinguished from them by a number of properties.

10.1 Temporal adverbs

Clause initial position is where temporal adverbs most commonly occur. Temporal adverbs set the time frame for the situation of the clause in which they occur. These can refer to a time period (*tíā* ‘olden times’, *fā* ‘year’, *tédē* ‘month’, *mákə* ‘week’, *sé* ‘day’) as shown below, where the temporal reference is to a non-specific day.

- (1) **só** **ro** **so** **ē** **ts'āga** **gí** **i** **dīē**
 day MOD:F NONSPEC:F 3PL:CMPL stand.up COMP NEUT:3PL travel
One day they got ready to go on a trip

Temporal references to a day can take the moment of speech as the point of reference (today (*aséro*), yesterday (*lūdò*), tomorrow (*gīsu*)), or any given day (one day, the day before, the day after).

Note in this next example that the noun phrase in pre-subject position precedes the temporal adverb, though the other order is also possible.

- (2) **kasúgu-e** **dē** **a-só-ró** **i** **ḍalá** **a** **mpadē**
 market-PL S.R. PREP-day-DEM:F NEUT:3PL not.exist PREP Makary
As for (weekly) markets, today, there aren't any at Makary

When referring to a day, the temporal reference can be part of the day in question (morning (*askísu*), afternoon (*ázar*), evening (*fadē*)). Note in this case that the pre-subject noun phrase follows the temporal adverb.

- (3) **fade** **gómnárū** **só** **ā** **lū** **k'ani** ...
 night lover DET:M 3SG:M:CMPL come CONJ
Night fell and her lover came then ...

More than one temporal reference can be made. Generally the subsequent reference provides additional temporal precision to the first, as shown in the next example.

- (4) **lūdò** **áftə** **nda** **só** **w-ō** **lū** **n** **ho**
 yesterday time DEM:M DET:M 1SG-CMPL come PREP:2PL L.P.
Yesterday at this time, I came to you all

The temporal adverb can precede or follow sequential markers (glossed CONJ below). In this next example it follows the sequential marker *k'ani*.

- (5) k'ani **na** **dó** kída ro-gó-dan n-ō gē
 CONJ now DET:F work MOD:F-POSS-3PL 3SG:F-CMPL be.finished
Now their work is finished

In the following example, the temporal adverb precedes the sequential marker *k'ani*. There is a clear prosodic break between the first and second line, giving evidence that the temporal adverb is not part of the preceding clause. The function of sequential markers is described in section 29.2.

- (6) ē lū ē sā tón
 3PL:CMPL come 3PL:CMPL sit ground
They came and sat down
- (b) **fadē** k'ani n-ō só fən só
 night CONJ 3PL:CMPL enter hut DET:M
Night (fell) then she entered the hut

Though rare in the corpus, temporal adverbs can occur clause finally, as illustrated in the next example.

- (7) k'ani maʃi ā dē gó-də ho **ázar**
 CONJ hyena 3SG:M:CMPL go PREP-3SG:F L.P. afternoon
Then hyena went to (see) her in the afternoon

Some temporal adverbs indicate that the situation of the clause is subsequent to another situation (generally the one mentioned in the previous clause, though not always). Terms used for this include *gáko dó* ‘next’ and *adégēn dó* ‘afterward’.

- (8) ē dē wo ro-gó-dan dó
 3PL:CMPL go village MOD:F-POSS-3PL DET:F
They went to their village

- (b) **gáko dó** ā i də fən kak
 front DET:F 3SG:M:CMPL put 3SG:F:IO hut IDEO
then he locked her in the hut

In this next example the sequential marker *aro* is followed by the temporal adverb *adágēn dó*.

- (9) g-ō fəlá **aro adágēn dó** we te hé ...
 2SG-CMPL dance CONJ next DET:F NEUT:2PL return L.P.
You've danced, now turn around ...

As just mentioned, the temporal adverbs *gáko dó* 'next' and *adágēn dó* 'afterward' indicate that the situation of the clause in which they occur is subsequent to another situation. Though the situation that it is subsequent to is generally the one described in the immediately preceding clause, it may be the situation described in the following clause depending on how the clauses are combined. Consider the next example. Line (b) contains the temporal adverb *adágēn dó* 'afterward' but the situation described in that clause is understood as being after the subsequent clause. How this is done is through the use of the non-sequential marker *dó* (instead of the sequential markers *k'ani* or *aro*) which occurs at the end of line (b). The marker *dó* occurs clause finally. Its proposed function, described in section 29.3, is to indicate that the clauses linked with *dó* are not in temporal succession within the narrative. That is, *dó* indicates that the situation of the first clause does not temporally precede the situation of the second. With the use of *adágēn dó* at the beginning of the clause in line (b), the addressee interprets the situation of that clause as subsequent to the situation described in the clause in line (c).

- (10) nía ro-gé-də gí əl hōn nzónā wa
 intention MOD:F-POSS-3SG:F COMP NEUT:3SG:F do adultery NEG
She didn't want to commit adultery but

(b) *ɗamá adógēn dō n-ō gə rə amsó nda só dō*
 ADVERS next DET:F 3SG:F-CMPL say 3SG:M:IO word DEM:M DET:M CONJ
before she told him that

(c) *dén gó blō n si ē ba gə marágə*
 3PL:IND with man MOD:M NONSPEC:M 3PL:CMPL tie PREP RECIP
she and a(nother) man had come up with a plan

10.2 Epistemic adverbs

Epistemic adverbs give the speaker's degree of certainty regarding the situation described in the clause. Like temporal adverbs, they occur in clause initial position. The epistemic adverbs *wánke* (or *wánte*) 'perhaps' (borrowed from Kanuri) and *sarakí* 'maybe' both express the speaker's doubt about the situation described in the clause. There does not appear to be any notable difference in the degree of doubtfulness between the two.

(11) *aro don só wánte mó-we fo n nəmân*
 CONJ 1SG:IND DET:M perhaps IRR-2PL give:APPL 1SG:IO money
Then maybe you'll give me (some) money

(12) *wo ró-n dō sarakí wa n si*
 village MOD:F-POSS:2PL DET:F maybe thing:CONC:PL MOD:PL NONSPEC:PL
In your village, are there, perchance,

(b) *gó mts¹afú-é sársár nondó yó nde læ wo*
 with tail-PL thin in.this.way DET:PL be.at:PL PRO POL
animals with long tails there?

Interestingly, to express the speaker's certainty about the situation of the clause, *sarakí* 'maybe' is followed by the concessive marker *yahe* 'even'. In section 29.8, I propose that the function of the concessive marker is to indicate that despite the information given in the concessive clause, the situation

of the matrix clause still holds true. When applied to the epistemic adverb *sarakí* ‘maybe’, *yahe* ‘even’ indicates that despite the expression of doubt, the situation of the clause still holds true.

- (13) dekóma ā hó gwá gí
 town.crier 3SG:M:CMPL put cry COMP
The town crier announced,

- (b) **sarakí** **yahe** hóngwó n-gə me ē sī héy-sən
 maybe even goat MOD:M-POSS sultan 3PL:CMPL take thief-NOM
“Let it be known that the sultan’s goat has been stolen”

10.3 Manner adverbs

Manner adverbs most commonly occur in clause final position. They convey some aspect of the way in which the action of the clause was carried out. Admittedly, this is a fairly broad notion. There are only about twenty manner adverbs that occur with any frequency within the corpus. These generally provide modification at the clause level though some can also function adjectivally, occurring as modifiers within the noun phrase. Manner adverbs precede the interrogative marker, the tag question marker, and the negative marker when any of these are present. The next two examples provide evidence of the clause final position of manner adverbs. In the first example, the adverb *lan* ‘completely’ occurs at the end of the first clause preceding the sequential marker *k’ani*.

- (14) ā mban **lán** k’ani ā so gwáne n-gə-n
 3SG:M:CMPL wash completely CONJ 3SG:M:CMPL wear clothes MOD:PL-POSS-3SG:M
He bathed thoroughly then put on his clothes

This next example contains two adverbs, *yô* ‘already’ which occurs before the sequential marker *aro* at the end of the first line, and *yígó* ‘only’ which is followed by the tag question marker at the end of line

(b).

- (15) tíā má blō só ā yā hádī **yô** aro
 olden.times FOC man DET:M 3SG:M:CMPL become thief already CONJ
Every time, a man that has already become a thief

- (b) wāla ē la rə wāla ā só dangáya **yígó** wá
 DISJ 3PL:CMPL kill 3SG:M:DO DISJ 3SG:M:CMPL enter prison only TAG
either they kill him or they put him in prison, right?

10.3.1 Reduplication to code for intensity

A small group of manner adverbs can be (fully) reduplicated as a means of intensifying the meaning of the adverb. This function of reduplication was also noted for quantifiers discussed in chapter 7. The manner adverbs that are reduplicated in the corpus are: *kál* ‘exactly’ (likely borrowed from Kanuri or another language), *tám* ‘quickly’, and *dén* ‘fully, completely’. The next two examples provide illustration.

Reduplication of *kál* ‘exactly’

- (16) w-ō ɕjárābu kʼani n-ō lū **kál** **kál**
 1SG-CMPL try CONJ 3SG:F-CMPL come exactly exactly
I tested out (his advice) and it came out just as he said

Reduplication of *tám* ‘quickly’

- (17) ā ɕji hálbō n-gə-n só tsʼe **tám** **tám**
 3SG:M:CMPL remove shoe(s) MOD:M-POSS-3SG:M DET:M outside quickly quickly
He took off his shoes really quickly

10.3.2 Modifying manner adverbs with intensifying adverbs

There are a number of intensifying adverbs in Makary Kotoko and a subset of these can be used to modify manner adverbs. The pairings appear to be lexically specified such that a given intensifying adverb will only modify a particular manner adverb. As with all instances of modification in the language, the modifier follows the element it modifies. In the corpus, those intensifying adverbs that can modify manner adverbs are: *tí* ‘just’, *dōtē* (INTENS), and *kadā* (INTENS). They modify the following adverbs respectively: *yígá* ‘only’, *lán* ‘completely’ and *nondó* ‘in this way’. The next two examples provide illustration.

- (18) *ā* *yā* *kəskê* *gə* *madí* *he* ***yígá*** ***ti***
 3SG:M:CMPL become near PREP death L.P. only just
All he was doing was drawing closer to death

In this next example, the intensifying adverb and the adverb it modifies occur in the first clause.

- (19) *ā* *də* *ní* ***lán*** ***dōtē*** *dó*
 3SG:M:CMPL go L.P. completely completely CONJ
He left for good and

- (b) *ā* *lū* *wa* *ngā*
 3SG:M:CMPL come NEG INTENS
never came back

The intensifying adverbs don’t only occur as modifiers of manner adverbs. They can also occur clause finally to intensify the action expressed by the verb, as seen in line (c) of the following example with the adverb *tí* ‘just’.

(20) kán gə dō kárná gə dē he
 2SG:M:IND NEUT:2SG bring calf NEUT:2SG put L.P.
You brought a calf, you stored it (away),

(b) gə k'əma gə-ne dó
 NEUT:2SG hide PREP-1PL:EXCL CONJ
you hid it from us

(c) ndówe nē la ti wá
 DEM:F 1PL:EXCL:CMPL kill just TAG
that's all that we killed, eh?

10.3.3 Intensifying negation: *ngâ*, *dəge*

Line (b) of example (19) above contains the adverb *ngâ* (INTENS) which follows the negative marker and serves to intensify the negation. This term may be derived from *ngâ* ‘whole, healthy’, which is probably borrowed from Kanuri (*ngâ* ‘healthy, clever’). The intensifying adverb *dəge* (INTENS) is also used to intensify negation. I address both of these in section 22.7.

10.3.4 Notable adverbs

I finish this section on manner adverbs with a presentation of a handful of adverbs which show some interesting properties.

The adverbs *bələm* ‘again’ and *k'o* ‘still/anymore’ exhibit similar functions and occur in comparable contexts. The discussion to follow presents their similarities and differences.

10.3.4.1 *bələm* ‘again’

The adverb *bələm* ‘again’ indicates that a situation happens again. It only occurs in positive contexts in the corpus. Either (i) the action expressed by the clause has previously happened and it happens again or (ii) the action expressed in the clause results in being in a (previously

mentioned/understood) state again. This next example is an instance of the former. Hyena and his wife are wrestling. His wife throws him to the ground, but Hyena stops the wrestling match because he says she surprised him. Then he says they should start to wrestle again.

- (21) tó g-ō ɕi n fən m gá **bələm**
 2SG:F:IND 2SG-CMPL surprise 1SG:IO hut NEUT:1PL:INCL wrestle again
You surprised me. Let's wrestle again.

This next example illustrates the use of *bələm* to indicate that the action expressed by the clause results in being in the same state again. This quite often occurs with verbs of motion. A man and a woman were in a village, took a trip, then returned to the village where they started from. The sentence does not mean that this was the second time they returned to the village but that this was their second time of being in the village (in the context of the story).

- (22) ē tə wo ro-gá-dan **bələm** k'ani ...
 3PL:CMPL return village MOD:F-POSS-3PL again CONJ
They went back to their village then ...

10.3.4.2 *k'o* 'still/anymore'

The adverb *k'o* 'still/anymore' indicates that the situation that it modifies is in addition to another situation previously mentioned. If the previous situation is the same as the situation of the clause in which *k'o* occurs, then *k'o* appears to have a similar function to *bələm*, described directly above. This is illustrated in the next example where Hyena has previously called Jackal to come to him, and now calls him again.

- (23) k'ani ā fé rə k'o a gə rə gí ...
 CONJ 3SG:M:CMPL call 3SG:M:DO still NEUT:3SG:M say 3SG:M:IO COMP
Then he called him again and said ...

While *bələm* only occurs in positive contexts in the corpus, *k'o* can occur in positive and negative contexts. In this next example, the wife has made a visit to a home but refuses to go back there again.

- (24) don hó dó m-ú də lə k'o wa
 1SG:IND house DET:F IRR-1SG go PRO still NEG
Me, the house, I won't go there anymore

I have proposed that *k'o* 'still/anymore' indicates that the situation that it modifies is in addition to another situation previously mentioned. Unlike *bələm*, the situation modified by *k'o* need not be the same as the first. This is clearly illustrated in the next example. In this story, Heron has played a trick on Squirrel which resulted in Squirrel burning up his own bean crop. Squirrel attempts to get back at Heron with his own ruse but it backfires when Heron plays another trick on him, and Squirrel ends up getting killed. The modifier *k'o* in line (b) of this next example doesn't indicate that Squirrel was slaughtered again, but that this situation occurred in addition to what had already happened to Squirrel (when Heron tricked him into burning up his own bean crop). What the two situations have in common is that by both of them Heron tricked Squirrel.

- (25) ē k'o gə kənéri só
 3PL:CMPL catch PREP squirrel DET:M
They caught Squirrel (and)

- (b) ē le gə-n wa yó k'o
 3PL:CMPL cut PREP-3SG:M neck L.P. still
they slit his throat as well

Evidence that *k'o* and *bələm* have distinct functions can be seen in the next two examples where both occur side by side. They can appear in either order. In this first example *k'o* precedes *bələm*.

- (26) k'ani ā tɔ-l də he **k'o** **bələm** gí ...
 CONJ 3SG:M:CMPL return-CAUS 3SG:F:IO L.P. still again COMP
Then he called her back yet again, saying ...

In the next example *bələm* precedes *k'o*.

- (27) k'ani n-ō sī dēy só **bələm** **k'o** gí ...
 CONJ 3SG:F:CMPL take pestle DET:M again still COMP
Then she took the pestle yet again, so that ...

10.3.4.3 *yô* 'already'

The adverb *yô* 'already' indicates that the element to which it applies is viewed as completed or existing. In example (15) above it modifies the situation described by the verbal predication. The element that it modifies need not be a clause, however. In this next example it modifies a noun functioning as a proposition. There is a clear prosodic break after the first occurrence of the 3SG:M direct object pronoun.

- (28) i la rə **gəlk'ə** **yô** aro m-í la rə yígé
 NEUT:3PL kill 3SG:M:DO old:M already CONJ IRR-3PL kill 3SG:M:DO only
They should kill him. (If someone is) already old then all they'll do is kill him

10.3.4.4 *mádǝ* 'for nothing'

The adverb *mádǝ* indicates that the situation to which it applies was 'for naught, served no purpose, cost nothing'.

- (29) i fo mo **mádǎ** wo
 NEUT:3PL give:APPL 1PL:INCL:IO for.nothing POL
Are they going to to give (it) to us for free?
(i.e., without our paying for it)

It can co-occur with other adverbs, as below where it is followed by *k'ó* ‘still/anymore’, described above.

- (30) i fo ne **mádǎ** **k'ó** wa
 NEUT:3PL give:APPL 1PL:EXCL:IO for.nothing still NEG
They wouldn't give (it) to us for free anymore

It can also function as the complement in non-verbal predication. In the next example, it is the complement of the juxtaposition construction (described in section 21.1).

- (31) [ságwá [ro séló dó n-ō sī]_{RC} dó]_{VCS} [**mádǎ**]_{VCC} wa
 hat MOD:F bird DET:F 3SG:F-CMPL take DET:F for.nothing NEG
The bird didn't take the hat for no good reason
(i.e., the fact that the bird took the hat is symbolic of something)

10.3.4.5 Durative adverb *nondó*

Makary Kotoko has an adverb, *nondó* that I've glossed ‘in this way’. It appears to have a few related functions, the most frequent of which is to indicate the durativity of a state of affairs previously mentioned. Interestingly, the final vowel of the adverb is quite often lengthened in these instances ([*nondó:*]), iconically depicting the durative aspect expressed. Depending upon the context, *nondó* can be understood to indicate (i) that the state which resulted from the action continues, or (ii) the action is ongoing, or (iii) that the action is repeated. Each of these possibilities is illustrated below. In this first example, the state of affairs that results from the action continues until another event occurs.

- (32) ā sī dó **nondó** k'ani ...
 3SG:M:CMPL take 3SG:F:DO in.this.way CONJ
He married her (and life went on like this) then ...

In this next example, the nature of the action expressed by the verb is such that the adverb is understood to convey that the action continues for a certain length of time.

- (33) me só ā ndə gó-n he **nondó** k'ani ...
 sultan DET:M 3SG:M:CMPL see PREP-3SG:M L.P. in.this.way CONJ
The sultan stared at him for a long time, then ...

The context of this next example is that a lion has taken the skirts of a group of girls that are in the river bathing. When they come out, he makes them each say a word made up of a sequence of nonsensical sounds so he can see inside their mouths (and find the one with a lion's tooth). As each girl comes forward and says the word (revealing that she doesn't have a lion's tooth), he hands her skirt back to her until only two are left. The use of *nondó* in this context is a way to indicate that the process of a girl coming forward, saying the word, having the lion examine the inside of her mouth, then having her skirt returned is repeated for each girl.

- (34) aro a sī a fo də **nondó** dó
 CONJ NEUT:3SG:M take NEUT:3SG:M give:APPL 3SG:F:IO in.this.way CONJ
Then he took (it) and gave it to her and so on until

- (b) ē ɕʒí he dén gāsi
 3PL:CMPL remain L.P. 3PL:IND two
only two were left

The durative adverb *nondó* can also occur clause-initially. In the next example there is a clear prosodic break after the first line. This example is another illustration of the adverb *nondó* used to indicate that an action is repeated.

- (35) fli a lū a i gó-də
 monkey NEUT:3SG:M come NEUT:3SG:M snatch PREP-3SG:F
Monkeys came and snatched (her food) from her

- (b) **nondó** ē bo do nsê kán gó jénsī
 in.this.way 3PL:CMPL have MMR day:PL ten with five
Things continued like this for two weeks

In examples (34) and (35) above, *nondó* is used to indicate a repetition of a previously described sequence of events. Since it conveys the repetition of the events, it helps to avoid reiterating the sequence of events. Another function of *nondó* appears to exploit this aspect further. In these cases, *nondó* functions like a pro-form, usually standing in for a clause. Consider this next example. The context of this story is again the lion who is making a group of girls say a particular word. He gives them two options – they either each say the word by themselves (and get their skirts back) or they don't say the word and are killed. The adverb *nondó* is used as a pro-form to avoid the repetition of known/understood information.

- (36) mé-g gə ts'ā to lábā **nondó** wa aro m-ú la tó
 IRR-2SG say only 2SG:F or in.this.way NEG CONJ IRR-1SG kill 2SG:F:DO
You'll say (it) yourself, if not, then I'll kill you

In this function, *nondó* is quite often intensified by *kadá*. In this example, a man has found a woman trapped in a tree and reports it to the sultan. The identification of the tree is not essential to the story so the speaker makes use of *nondó*.

- (39) w-ō ka dǎ a gó-l sí n nondó kadá
 1SG-CMPL find 3SG:F:DO PREP head-NMOD:F tree MOD:M in.this.way INTENS
I found her on such and such a tree

10.4 Ideophones

Ideophones are similar to manner adverb in that they generally convey the manner in which an action was carried, or the sound produced in carrying out the action.¹ What primarily distinguishes ideophones from manner adverbs is their exceptional phonology, their propensity to be reduplicated, and their highly context-specific meaning. In this section I present the following properties of ideophones: (i) exceptional phonology, (ii) clause final position, (iii) clause initial position, (iv) conveying sounds used in communicating with animals, and (v) modification of color adjectives.

10.4.1 Exceptional phonology

For all other word classes, only sonorants can occur as syllable codas. For ideophones, however, stops and fricatives occur in syllable coda position, as shown in the following table.

Coda	Ideophone	Meaning
p	tʃip	sound of being hit on the head
t	gəfət gəfət	sound of a big bird taking to flight
k	ɓúlúk	sound of something dropping into the mouth
b	k'əb k'əb k'əb	sound of someone's upset stomach
d	tʃəbəd	describes hiding something completely from sight

¹ Cf. Mahamat (2005:115) for a brief discussion of ideophones.

Coda	Ideophone	Meaning
g	kəg kəg	sound of hitting something (i.e. wall) with something
f	tʃof	sound of someone diving into water
s	gəs gəs gəs	sound made by the contents of a bowl carried in the arms
ʃ	kaʃ	sound of hitting something with a stick

Table 10.1 Exceptional syllable codas in ideophones

Makary Kotoko doesn't contrast long and short vowels, though lengthened vowels are used in some ideophones, generally conveying a continuation of the manner in which the action of the clause was carried out.

Ideophone	Meaning
fu:	sound of a strong wind blowing through the trees
ga:	describes a wafting bad smell
u:	sound of many things flying

Table 10.2 Long vowels in ideophones

Full reduplication is very frequent with ideophones, a property shared with numerals, quantifiers, and a handful of manner adverbs. As noted in section 10.3.1, reduplication of manner adverbs generally conveys an increase in the intensity with which the action described in the clause was carried out. For ideophones, reduplication generally conveys the durativity of the action described in the clause. The examples below also illustrate the highly context-specific meanings that many ideophones express.

Ideophone	Meaning
bán bán bán	sound made by the contents of a bowl carried on the head
brow brow brow	sound of gossip being passed along
ból ból ból	sound of pouring something from a narrow necked container
gələm gələm	sound of a big fire blazing
gəɖʒi gəɖʒi	describes people celebrating a special events

Ideophone	Meaning
gəs gəs gəs	sound made by the contents of a bowl carried in the arms
k'és k'és k'és	describes how someone walks carrying something heavy
k'um k'um	describes people speaking quietly together
wits'i wits'i	sound of a snake slithering
wəm wəm wəm	sound of someone stuffing food in their mouth

Table 10.3 Reduplicating ideophones

A number of ideophones have a common meaning which is to indicate the sound of many animates running, chasing after each other, or fighting. They also have comparable syllable structures – generally CVr.CV or CV.CrV. These are quite often fully reduplicated two or three times to express the ongoing nature of the action of the clause. The following list provides illustration.

Syllable structure	Ideophone	Meaning
CVr.CV	bərta bərta	sound of a fight in progress
	gərta gərta gərta	sounds of a chase/fight going on
	kərta kərta kərta	sound of fighting, of horses running
	kərta kərta kərta	sound of running away
	kərtə kərtə	sound of running away
	partʃa partʃa partʃa	describes fighting in knee-high water
CVl.CV	bəlk'a bəlk'a bəlk'a	describes two people rolling around on the ground in a fight
CV.CrV	gatra gatra gatra	sound of fighting
	batra batra batra	describes how old people shuffle their feet while walking
	bətra bətra bətra	describes taking someone somewhere by force
CrV.V	gria gria gria	describes people walking quickly

Table 10.4 Ideophones expressing running, chasing, fighting

Unlike other word classes where tones can vary from one syllable to the next, ideophones are generally realized either with H tone throughout or L tone throughout. In a few cases, a change from one tone to the other changes the rapidity with which the action of the clause is carried out. When

contrasted, H tone generally conveys the action is done quickly, L tone that the action is done slowly or for a long period of time.

Ideophone	Meaning
tʃór / tʃòr	sound of water falling quickly (H), slowly/for a long time (L)
d(ə́l)ók / d(ə̀l)ók	sound of water dripping quickly (H), slowly (L)

Table 10.5 Tonal changes on ideophones

10.4.2 Ideophones in clause final position

Like manner adverbs, ideophones usually occur in clause-final position, as shown in the next two examples.

- (40) gáko dó blō só ā fā hé **wib** k'ani ...
 front DET:F man DET:M 3SG:M:CMPL bend.down L.P. IDEO CONJ
Then the man bent down quickly and ...

- (41) k'ani méyna só ā lū **tólák** **tólák**
 CONJ prince DET:M 3SG:M:CMPL come IDEO IDEO
Then the prince came (along) nonchalantly

10.4.3 Ideophones in clause initial position

Though less frequent, ideophones can also occur in clause-initial position. The next two examples provide illustration. Note that the ideophone follows the sequential marker in this next example.

- (42) k'ani **wəbəm** ē hən bádī ē k'ō tən k'ani ...
 CONJ IDEO 3PL:CMPL do beginning 3PL:CMPL fall ground CONJ
Then, lightning fast, they started again. They jumped to the ground then ...

Note in this next example that the ideophone follows the noun phrase in pre-subject position.

- (43) k^lani nte dó ðe **bón** **bón** **bón**
 CONJ DEM:DIST:F DET:F S.R. IDEO IDEO IDEO
Then that one, with the bowl of meat bouncing on her head,

- (b) n-ō ðā gē-i ho-l-me
 3SG:F-CMPL go mouth-NMOD:PL house-NMOD:F-sultan
went to the sultanate

10.4.4 Communicating with animals

Most ideophones describe the sound made in carrying out an action or the manner in which the action was carried out. A small group of ideophones indicate the sound made to communicate something to an animal, either to chase an animal away, call an animal to the speaker, or give the animal an instruction to follow. I treat these as ideophones since they show properties of ideophones (e.g. having non-sonorant codas, being readily reduplicated, bearing either H or L tone, etc.).

Ideophone	Meaning
ʈʈák ʈʈák ʈʈák	sound produced to chase goats away
gwe gwe gwe gwe	sound produced to chase wild animals away
sórúk sórúk sórúk	sound produced to chase chickens away
ʈʈúr	sound produced to call a cat
kút kút	sound produced to call a chicken
ʈʈók ʈʈók ʈʈók	sound produced to signal a dog to hunt something

Table 10.6 Communicating with animals

10.4.5 Modification of color adjectives

A small group of ideophones are used to modify color adjectives, generally to intensify the color in question. Each ideophone is specific to a particular color.

Ideophone	Meaning
his	‘ish’ – used for red and white
tél	very (white (of light))

Ideophone	Meaning
pók	very (white) (bw. Ka.)
pít	very (red) (bw. Ka.)
pát	very (black) (bw. Ka.)

Table 10.7 Ideophones modifying color terms

The next two examples provide illustration from the corpus.

- (44) gə hāmo gə mē hé **ngaba** **pók** nondó
 NEUT:2SG be.wrong NEUT:2SG remain L.P. white IDEO in.this.way
Why are you all pale like that?

- (45) k'ani sá da a ndə **ngamsi** **pít** k'ani ...
 CONJ eye CONTR NEUT:3SG:M see red IDEO CONJ
Then he saw the deep red eyes (of the lion) ...

10.5 Summary

This chapter presented adverbs and ideophones. I described in turn: (i) temporal adverbs, (ii) epistemic adverbs, (iii) manner adverbs, and (iv) ideophones. Temporal adverbs set the temporal scene for the clause in which they occur. Epistemic adverbs express the degree of certainty that the speaker has about the situation presented in the clause. Both temporal and epistemic adverbs generally occur clause-initially. Manner adverbs indicate the way in which the action of the clause was carried out. They can be reduplicated to intensify the meaning of the adverb. Ideophones can express the way the action was carried out or describe the sound made in carrying out the action. They can be reduplicated to convey the durativity of the action in the clause. Both manner adverbs and ideophones usually occur clause finally.

11 Prepositions and locative specifiers

There are about ten markers in Makary Kotoko that I present here which are prepositional in at least some of their uses. Functioning as prepositions, they are followed by a noun phrase. Their role is to indicate the function of that noun phrase within the clause. Six of the markers are always followed by their (nominal/pronominal) object. I refer to these transitive prepositions. This is in keeping with the way I define transitivity for verbs (cf. section 17.2) where a transitive verb is one which requires the expression of its object in the canonical direct object position. Two markers have one form when their object follows them but have a slightly different form if their object is in pre-subject position or is understood from context. I call these ambitransitive prepositions by analogy with ambitransitive verbs. Two more markers are followed by their object when the object is realized nominally. When the object is realized pronominally, it precedes the marker and the marker itself takes a different form. I refer to these locative specifiers.¹

11.1 Transitive prepositions

There are six transitive prepositions in Makary Kotoko. The following table lists the transitive prepositions and gives a basic meaning/function for each. Each of these is discussed in turn below.

¹ Frajzyngier (2008a) and Frajzyngier and Shay (2002) refer to forms with a similar function in other Chadic languages as ‘spatial specifiers’.

Preposition	Function
gó	<i>comitative</i> ('with')
dəban / balál	<i>'without'</i>
gara	<i>'like'</i>
do	<i>'as'</i>
a	<i>locative</i>
(a) ngō-l	<i>'at, in'</i>

Table 11.1 Transitive prepositions

11.1.1 Comitative gó

The basic function of the comitative preposition *gó* 'with' is to indicate that its argument is with some other entity. What it means to be 'with' another entity depends on context. It can be used in a variety of syntactic constructions. Some of these are addressed elsewhere. I will make passing mention of those first. The comitative can conjoin two noun phrases forming one of the non-verbal predication constructions. I call this the 'comitative copula construction' and discuss this in section 21.3.

- (1) m to gí [**kón** só]_{CS} gó [**amân**]_{CC}
 NEUT:1PL:INCL return.home COMP 2SG:M:IND DET:M with trust
Let's go home because you have shown yourself to be trustworthy

The comitative and its following argument can also function as a nominal modifier. To function in this way, the prepositional phrase is introduced by the modifying marker (*ro* (MOD:F) or *n* (MOD:M/PL)). An example is given below. I have bolded the prepositional phrase which is modifying the noun *ǝi* (thing:CONC), the whole of which constitutes the direct object (square bracketed and subscripted) of the clause.

- (2) a ka [ɕi ro **gó nəmân dó**]_{DO} wa
 NEUT:3SG:M find thing:CONC MOD:F with money DET:F NEG
He couldn't find anything with the money (in it)

Within the corpus, the comitative can conjoin two noun phrases. These can be co-referential with the subject marker of the clause, or can function as the direct object, object of a prepositional verb, possessor, or temporal reference. These are illustrated in turn below.

Conjoined NPs co-referential to subject marker

- (3) **tán** **gó wō** da ndá-y ka marágə
 ground with summit CONTR INCMPL-3PL find RECIP
The ground and the sky are coming together

Conjoined NPs function as direct object

- (4) ā ka [**use gó bli**]_{DO} de ā ɕí go
 3SG:M:CMPL find food with sauce S.R. 3SG:M:CMPL refuse PREP
He found food with sauce but he refused (to eat it)

In this next example, there is a conjoined noun phrase in pre-subject position which is co-referential with the resumptive pronoun (bolded) in the canonical position for the object of a prepositional verb.

Conjoined NPs function as object of prepositional verb

- (5) **ngúrdúkí** **gó mapú** ē man gə-**dan** wo dó
 paralysed.person with blind.person 3PL:CMPL leave PREP-3PL village DET:F
They left the village to the paralysed man and the blind man

Conjoined NPs function as possessor

- (6) w-ō ndə kída ro-gə **kálēw gó básū**
 1SG-CMPL see work MOD:F-POSS dog with chicken
I saw the work of dog and chicken

Conjoined NPs provide temporal reference

- (7) **sá** [ro əl hān gokúro]_{RC}
 day MOD:F NEUT:3SG:F do three
The third

- (b) **gó** [no əl hān gāde]_{RC} **dó** ...
 with 3SG:F NEUT:3SG:F do three DET:F
and fourth day, ...

The comitative with its following noun phrase can follow the verb phrase. Depending upon the nature (humanness, animacy, etc.) of the referent of object of the preposition, and the meaning of the clause, the prepositional phrase formed with the comitative preposition and its object can convey such notions as accompaniment, instrument/means, and location. These are presented in turn below.

Animate accompaniment

- (8) **ló** ro **dó** əl **dā** fən **só** **gó** **mo**
 child DEM:F DET:F NEUT:3SG:F lie.down hut DET:M with 1PL:INCL
This child is going to sleep in the room with us,

- (b) əl hāmo
 NEUT:3SG:F be.wrong
what's wrong with her?

Inanimate accompaniment

- (9) **ā** ká **gá-də** sá ts'e **ā** dē ní **gó** **lə**
 3SG:M:CMPL pluck PREP-3SG:F eye outside 3SG:M:CMPL go L.P. with PRO
He plucked out her eye and went away with it

Instrument/Means

- (10) **wa** yó yá-m **dówo**
 thing:CONC:PL DET:PL VOL-1PL:INCL buy
The food, we need to buy (it)

- (b) **gó nəmân ro-gó-mo** wá
 with money MOD:F-POSS-1PL:INCL TAG
with our money, right?

Location

- (11) **ā nká-fǎ si he gó lāla dó** ...
 3SG:M:CMPL PL-change REFL L.P. with field DET:F
He walked around (and around) in the bush ...

The comitative is also used in the formation of numerals. This is discussed more in section 7.1.

- (12) **n-ō bo ēman mblo-s-kadē gó kán a gə amé he**
 3SG:F-CMPL have year twenty-LINK-four with ten PREP PREP water L.P.
She spent ninety years in the water

11.1.2 *dəban* / *balál* ‘without’

Both of these terms convey the same privative notion ‘without’, and both are most probably borrowed, with Arabic as the likely original source. It is possible to substitute one for the other in the different examples that occur in the corpus with no perceived change in meaning. Neither occur as nominal modifiers in the corpus.

dəban ‘without’

- (13) **tá la rə dəban don wa**
 PROH:3SG:M kill 3SG:M:DO without 1SG NEG
Don’t kill him without me (being there)

balál ‘without’

- (14) **ē ts'am balál táǰə ro-gə me só**
 3PL:CMPL agree without awareness MOD:F-POSS sultan DET:M
They agreed (to his conditions) without informing the sultan

11.1.3 *gara* ‘like’

The preposition *gara* ‘like’ indicates that the referent of its object is similar to some other element in the context. In the next example, the prepositional phrase functions as a nominal modifier as seen by the modifying marker which precedes it.

- (15) aro ʃú n **gara nda** **só** ...
 CONJ meat MOD:M like DEM:M DET:M
Meat like that ...

In this next example, the prepositional phrase follows the verb phrase. The object of the preposition (*nyi* (thing:ABSTR)) is modified by a relative clause. The context of the story is that a man is telling one of his wives that she’ll be able to marry someone else (once he is dead or in prison because of something he stole) which was what her co-wife had already told her.

- (16) mǎ-g sī wi **gara nyi** [ro **dó**
 IRR-2SG take husband like thing:ABSTR MOD:F 3SG:F:IND
You’ll marry (another man) just like what

- (b) **n-ō** **gə**]_{RC} **dó** yígá wá
 3SG-CMPL say DET:F only TAG
she said, eh?

11.1.4 *do* ‘as’

The marker *do* ‘as’ functions primarily as a preposition within the corpus, being followed by a noun phrase. It does, however, have other functions which I discuss in this section as well. It is similar in meaning to *gara* ‘like’, but does not function as a nominal modifier in the corpus. Its primary function is to indicate that the referent of the following noun phrase is in an identity relation with some

other element in the context. This is illustrated in the next three examples. In the first example it follows the verb phrase.

- (17) n-ō sī rə **do** **wi-só** **də**
 3SG:F-CMPL take 3SG:M:DO as husband-LINK 3SG:F
She took him as her husband

In this next example the preposition *do* and its object follow another prepositional phrase (containing the comitative preposition *gó* ‘with’) coming after the verb phrase.

- (18) blō só ā lū ts'e gó mʃâr n-gə-n
 man DET:M 3SG:M:CMPL come outside with axe MOD:M-POSS-3SG:M
The man came out (of the bush) with his axe

- (b) **do** **blō** [n **nda** **də** **lāla** **ro-gə-n**]_{RC}
 as man MOD:M INCMPL:3SG:M go field MOD:F-POSS-3SG:M
as one going to his fields

In the following example the prepositional phrase follows the locative copula construction.

- (19) gáko dó [dan da]_{CS} nda [lə]_{CC} **do** **me**
 front DET:M 3SG:M:IND CONTR be.at:M PRO as sultan
Then he was the one who was there as sultan

The object of the preposition *do* can be a proper name, in which case it is used as a way of giving someone’s name or of naming someone. This can be done within different syntactic constructions. In the first example, the prepositional phrase follows a verbal predication containing the verb *lé* ‘call’, as a way of indicating someone’s name.

- (20) *ló dó i fé dś do Madilgayo*
 child DET:F NEUT:3PL call 3SG:F:DO as Madilgayo
The child's name was Madilgayo

In the next example, *do* and its following proper name object are preceded by the possessed noun *ǰímū* ‘name’. In this case it would be possible to analyze the construction as a type of non-verbal predication, with *do* as a copula, linking the copula subject to its complement.

- (21) [*ǰímū n-gə-n*]_{CS} do [*Barká*]_{CC}
 name MOD:M-POSS-3SG:M as Barka
His name was Barka

In this next example the verb *dś* ‘put’ is followed by the prepositional phrase as a way of naming someone.

- (22) **A:** *ndəwe w-ō wē ló sə mēywe ...*
 DEM:F 1SG-CMPL give.birth.to child NMOD:M males
“Here, I’ve given birth to a son ...”

- (b) **B:** *iyo əl mbîn dś do Alífa*
 okay NEUT:3SG:F be.good put as Alifa
“Okay, that’s good. Name (him) Alifa.”

The term *do* is also used with the numeral *gāsi* ‘two’ following it to convey that an action occurred twice.

- (23) *gáko dó ē bó marágə do gāsi*
 front DET:F 3PL:CMPL start.fighting together as two
Then they starting fighting each other a second time

The preposition *do*, with the noun *ǰírê* ‘truth’ as its object, conveys that the previous statement is true.

- (24) \bar{e} $d\bar{a}$ $n\acute{i}$ \bar{e} ka $d\acute{o}$ $n-\bar{o}$ $m\bar{a}d\bar{a}$ **do** **ɔ̄jirê**
 3PL:CMPL go L.P. 3PL:CMPL find 3SG:F:DO 3SG:F-CMPL die as truth
They went and found her and she really had died

The next example contains an instance of both *do* ‘as’ and *gara* ‘like’ within the same clause. Both prepositional phrases are bolded, square bracketed, and subscripted with a numeral.

- (25) $m-\acute{u}$ $f\bar{a}$ si he [**do kólēw**]₁ [**gara nyi** **ro-g-u**]
 IRR-1SG change REFL L.P. as dog like thing:ABSTR MOD:F-POSS-1SG
I’ll turn myself into a dog like how I was

- (b) [**ro** **w-ō** **lū** **do**]_{RC} **dó**]₂ $kan\acute{a}$ $ka d\acute{o}$ n
 MOD:F 1SG-CMPL come MMR DET:F therefore follow 1SG:DO
when I came (before), then follow me

The marker *do* can also function as a complementizer, but only with the verb *ndə* ‘see’.

- (26) don $s\acute{o}$ u **ndə do**
 1SG:IND DET:M NEUT:1SG see as
I see that
- (b) **ts’āle** **n-g-u** **ā** **gē**
 strength MOD:M-POSS-1SG 3SG:M:CMPL be.finished
my strength is finished (i.e., I’m about to die)

11.1.5 Locative *a*

The primary function of the preposition *a* (PREP) is to indicate that the referent of the following noun phrase is to be understood as a location. That location can be expressed with a common noun, a proper name, or the pronoun *lə* (PRO) referring to a previously mentioned location. Each of these is illustrated in turn.

Location expressed by a common noun

- (27) dan dē ā lū **a** **lāla** k'ani ...
 3SG:M:IND S.R. 3SG:M:CMPL come PREP field CONJ
 Then he came from his fields and ...

Location expressed by a proper name

- (28) ē wē n **a** **Maladí**
 3PL:CMPL give.birth.to 1SG:DO PREP Maladi
 I was born in (the village of) Maladi

In this next example the pronoun *lə* refers back to the market of Marte (bolded).

Location expressed by pronoun *lə*

- (29) ā dō **kasúgu** sō **Marte** so ā sā tén **a** **lə**
 3SG:M:CMPL go market NMOD:M Marte DET:M 3SG:M:CMPL sit L.P. PREP PRO
 He went to the market (in the town) of Marte and sat down there

The location can be abstract, as well, as illustrated in the next example.

- (30) k'ani a gə **a** **ánkal** **n-gə-n** gí ...
 CONJ NEUT:3SG:M say PREP mind MOD:M-POSS-3SG:M COMP
 Then he said to himself (lit. in his mind)

Less commonly, the object of the preposition can be a temporal reference. This is illustrated in

line (b) of the following example.

- (31) we do n hó ro-gə
 NEUT:2PL take.to 1SG house MOD:F-POSS
 Take me to the house of
- (b) blō [n a mban **a** **ázar**]_{RC}
 man MOD:M NEUT:3SG:M bathe PREP late.afternoon
 the man who bathes in the late afternoon

The preposition *a* and its following noun phrase can function as a nominal modifier. To function in this way, the prepositional phrase is introduced by the modifying marker. An example is given below.

Prepositional phrase modifies a noun

- (32) mēgə n a wo ro dó
 people MOD:PL PREP village DEM:F DET:F
The people of this village

11.1.6 (a) *ngō-l* ‘at, in’

The preposition *ngō-l* (place-NMOD:F) is morphologically complex, composed of *ngō* ‘place’ and the feminine form of the marker used in the noun-noun construction. In keeping with its lexical source, a common function of this preposition is to convey that the situation expressed by the predicate occurs at or amongst the referent(s) of the object of the preposition. The preposition *a* can combine with the preposition *ngō-l* to form a complex preposition. The presence or absence of the preposition *a* depends upon how integrated the prepositional phrase is within the argument structure of the verbal or non-verbal predication. If the prepositional phrase is part of the argument structure of the verb (e.g. object of the verb, locative complement) or a component part of a non-verbal predication type (e.g. copula complement), then the preposition *a* does not occur. This is illustrated in the next two examples. In the first, the prepositional phrase is the obligatory locative complement of the verb *dā* ‘go’. As explained in section 17.3.1, *dā* ‘go’ is a motion verb which requires the expression of location as part of its argument structure.

Prepositional phrase as locative complement of *dā* ‘go’

- (33) ndá-w dā ngō-l jáfū só
 INCMPL-1SG go place-NMOD:F grass DET:M
I’m going (in) among the grass

In the following example, the prepositional phrase is the copula complement in the locative copula construction. Note that the location is understood abstractly.

Prepositional phrase as copula complement of locative copula construction

- (34) [fartaʃó dó]_{CS} ndwa [ngō-l mpadə]_{CC}
 fartaʃo DET:F be.at:F place-NMOD:F Makary Kotoko
'Fartasho' is not (a word) in Makary Kotoko

- (b) gí ne sən dó wa
 COMP NEUT:1PL:EXCL know 3SG:F:DO NEG
that we would know it

If the preposition *ngō-l* and its following noun phrase argument are not part of the argument structure of the predication, then the preposition *a* generally precedes it. This is illustrated in the next two examples.

In the first, the complex prepositional phrase follows the ambitransitive verb *gə* 'say'. The prepositional phrase is not part of the argument structure of the verb as can be seen by the presence of the complementizer *gí* at the end which introduces the directly reported speech of the verb of saying.

Prepositional phrase following ambitransitive verb *gə* 'say'

- (35) kənérī ā gə a ngō-l waháre yó gí ...
 squirrel 3SG:M:CMPL say PREP place-NMOD:F wood:PL DET:PL COMP
Squirrel said from within the (pile of) wood that ...

In the next example, the prepositional phrase follows the intransitive verb *mādə* 'die'. Since it is not part of the verb's argument structure, the preposition *a* is used. Note in passing that the prepositional phrase gives the temporal framework for the situation expressed in the clause.

Prepositional phrase following intransitive verb *mādē* ‘die’

- (36) n-ō mādē a ngō-l nsê nde yó
 3SG:F-CMPL die PREP place-NMOD:F day:PL DEM:PL DET:PL
She died within these (past few) days

The argumentation for the use and non-use of the preposition *a* preceding another preposition also applies to the other prepositions in the language.

11.2 Ambitransitive prepositions

Ambitransitive prepositions, like ambitransitive verbs, can occur with or without a following argument. The ambitransitive prepositions have distinct forms when used transitively (i.e., with a following argument) and intransitively (i.e., without a following argument). The following table lists the ambitransitive prepositions with their transitive and intransitive forms, and gives a basic meaning/function for each. Each of these is discussed in turn below.

Transitive form	Intransitive form	Function
(a) gə NP	(a) gó	<i>general</i>
(a) gə NP ho	(a) gó ho	‘at’
(a) gə NP he	(a) gó he	‘by’
ts ^l ā	ts ^l āgē	‘only’

Table 11.2 Ambitransitive prepositions

11.2.1 General preposition *gə*

The preposition *gə* occurs in a variety of contexts. I have been unable to come up with an overarching function for this preposition and thus call it a ‘general’ preposition. It appears to cover the domains that the other prepositions don’t cover. It can be used to express that the action of the clause was done to the detriment of the referent of the object of the preposition (i.e., malefactive). This is

discussed in section 19.1. It is used with prepositional verbs – verbs that require that their object be introduced with the preposition *gə*. This is described in section 17.5. It can be used to introduce a locative complement within the verb phrase. I describe this function in section 19.4. I have proposed that the preposition *gə* is also used in the formation of the possessive determiners and pronouns. This is described in section 6.1.1. If the object of the preposition *gə* is a location, the prepositional phrase indicates the source of the situation expressed by the predicate.

- (37) *ngō* *dó* *ē* *ke* *he* ***gə*** ***ts'e***
 place DET:F 3PL:CMPL close L.P. PREP outside
The closed the place from the outside

If a temporal reference follows the preposition *gə*, the prepositional phrase expresses the length of time the situation expressed by the predicate lasted.

- (38) *ē* *fē* ***gə*** ***nsê*** ***kán*** ***gó*** ***ǰénsi***
 3PL:CMPL fight PREP day:PL ten with five
They fought for fifteen days

With a language name after the preposition *gə*, the prepositional phrase indicates the language that was spoken.

- (39) ... *a* *sō* *ngó* ***gə*** ***ngwalgwe***
 NEUT:3SG:M insult PREP:2SG:M PREP Goulfey.Kotoko
He'll insult you (speaking) in Goulfey Kotoko

It is also used in some idiomatic expressions, as in the following, which has *ərfu* ‘heart’ as the object of the preposition.

- (40) ... i fō ní a lə gó dó **gə** ɔ̄rfu **n-gə-dan**
 NEUT:3PL run L.P. PREP PRO head DET:F PREP heart MOD:M-POSS-3PL
they drive on it without a care in the world (lit. from their hearts)

The prepositions *a* and *gə* can combine to form a complex preposition *a gə*. Again, what the resulting prepositional phrase conveys depends upon the nature of the object of the complex preposition and the predicate of the clause, though it generally provides locative information.

- (41) k'ani maʃi da ē ka rə a **gə** sí **dó**
 CONJ hyena CONTR 3PL:CMPL find 3SG:M:DO PREP PREP tree DET:F
Then it was a hyena that they found (tied) against the tree

As with the simple preposition *a*, the complex preposition *a gə* and its following object can function as a nominal modifier. As such, it must be preceded by the modifying marker, as shown in this next example.

- (42) marge **ro** a **gə** **ʃé** **n-gə-n** ro **dó**
 ring MOD:F PREP PREP hand MOD:M-POSS-3SG:M DEM:F DET:F
That ring on his finger

If the object of the preposition *gə* is in pre-subject position or understood by context, the preposition *gə* takes the form *gó* (what I've called its 'Intransitive form' in table 11.2 above). This is seen in this next example. I have bolded the pre-subject noun phrase and the complex preposition.

- (43) **nyi-e** n **gāsi** **nde** **yó**
 thing:ABSTR-PL MOD:PL two DEM:PL DET:PL
These two things

- (b) sá ro g-ō hān pál a **gó** aro ...
 day MOD:F 2SG-CMPL do one PREP PREP CONJ
if you do one of them, then ...

11.2.2 Preposition *gə* with locative particle *ho* ‘at’

The preposition *gə* and the locative particle *ho* can occur on either side of the object of the preposition. In keeping with the proposed function of the locative particle *ho*, indicating action toward the deictic center (described in section 16.2.2), the meaning of the construction as a whole is that the situation described by the verb of the clause is oriented toward the referent of the object of the preposition. This is seen in the next two examples. In the first, the preposition has a nominal object, in the second, pronominal.

- (44) k'ani ā dā **gə** **abáná** **n-gə-dan** **ho**
 CONJ 3SG:M:CMPL go PREP younger.brother.of.father MOD:M-POSS-3PL L.P.
Then he went to (see) his uncle

- (45) nəmân garo yahe dā **gə-n** **ho**
 money how.much even put PREP-3SG:M L.P.
However much money (you'd like to charge him) put (that) on him

The preposition *a* can combine with the preposition *gə* and the locative particle *ho* to form a complex preposition, as shown below.

- (46) n-ō sō he **a** **gə**
 3SG:F-CMPL arrive L.P. PREP PREP
She came to

- (b) **blō** [**n** **a** **mban** **a** **ázar**]_{RC} **ho**
 man MOD:M NEUT:3SG:M bathe PREP late.afternoon L.P.
the man who bathes in the late afternoon

11.2.3 Preposition *gə* with locative particle *he* ‘by’

In similar fashion, the preposition *gə* and the locative particle *he* can occur on either side of the object of the preposition. Again, in keeping with the proposed function of the locative particle *he*, indicating action downward to/from the deictic center (described in section 16.2.2), the meaning of the construction as a whole is that the situation described by the verb of the clause is oriented under, beside, by the object of the preposition. This is seen in the next two examples.

- (47) *ɗa* *amé* *ɗə* ***gə-n*** ***he***
 IMP:2SG:draw water IMP:2SG:put PREP-3SG:M L.P.
Draw water and put (it) beside him

This construction is also used in the following idiomatic expression conveying that the subject of the clause is close to death.

- (48) *ā* *yā* *kəskê* ***gə*** ***madí*** ***he***
 3SG:M:CMPL become near PREP death L.P.
He was about to die

The preposition *a* can combine with the preposition *gə* and the locative particle *he* to form a complex preposition, as shown below.

- (49) *kʼani* *ā* *lū* *ā* *ɗā* *he* ***a*** ***gə-n*** ***he***
 CONJ 3SG:M:CMPL come 3SG:M:CMPL lie.down L.P. PREP PREP-3SG:M L.P.
Then he_i came and lay down beside him_k

If the object of the preposition *gə* is in pre-subject position or understood by context, the preposition *gə* takes its intransitive form *gó*. In this next example, the noun phrase in pre-subject position

is not the object of the preposition. It corresponds with the direct object of the clause. The object of the preposition is understood by context to be *amefú* ‘gruel’, which is mentioned in the preceding context.

- (50) asám só n-ō gá rə gó he
 poison DET:M 3SG:F-CMPL put 3SG:M:IO PREP L.P.
The poison_i, she put (it_i) in (it_k) (i.e., the gruel) for him

11.2.4 *ts'ā* ‘alone’

The preposition *ts'ā* ‘alone’ and its object serve to modify a preceding noun phrase. It is used to indicate that the referent of that noun phrase was the only one involved in the situation in question.

When referring to a human referent, *ts'ā* is always followed by a personal pronoun which corresponds in person/gender/number with the antecedent of the pronoun. The preposition *ts'ā* generally comes at the end of the clause in which it occurs even though it can refer to an argument situated elsewhere in the clause. It can modify the subject in a verbal predication, as shown below. I have bolded the subject marker and the prepositional phrase.

- (51) mǎ-g gə **ts'ā** to
 IRR-2SG say alone 2SG:F
You'll say (it) alone
(i.e., with no one else's help)

It can modify the subject in a non-verbal predication. In the example below, it modifies the subject of the locative copula construction.

- (52) [**don** **só**]_{CS} nda [lə]_{CC} **ts'ā** n
 1SG:IND DET:M be.at:M PRO alone 1SG
I live by myself

It can modify the direct object of a clause. Note how it occurs at the end of the clause.

- (53) \bar{e} $\bar{d}\bar{e}$ $[\bar{r}\bar{e}]_{DO}$ $\bar{t}\bar{a}n$ $\bar{t}\bar{o}ng\bar{e}r$ a $m\bar{b}\bar{a}l\bar{a}$ $\bar{t}s'\bar{a}$ $\bar{r}\bar{e}$
 3PL:CMPL put 3SG:M:DO ground publicly PREP open.plot.of.land alone 3SG:M
He set him down out in the open all alone

However, when it modifies a noun phrase in pre-subject position, it comes directly after it.

- (54) **dan** **$\bar{t}s'\bar{a}$** **$\bar{r}\bar{e}$** \bar{a} $\bar{s}\bar{o}$ $k\bar{a}b\bar{a}r$ $\bar{d}\bar{o}$ $\bar{z}\bar{a}b\bar{u}$
 3SG:M:IND alone 3SG:M 3SG:M:CMPL enter grave DET:F deep
He alone went down into the grave

If the argument it modifies is non-human, the intransitive form of the preposition is used: $\bar{t}s'\bar{a}g\bar{e}$.

That is, whether $\bar{t}s'\bar{a}$ is used transitively or intransitively depends upon the humanness of the referent it modifies.

- (55) $m\bar{e}y$ $\bar{t}\bar{i}\bar{a}$ $\bar{d}\bar{e}$ \bar{e} $\bar{b}\bar{o}$ $\bar{y}a\bar{n}k\bar{e}$ $\bar{w}a$
 people.of olden.times S.R. 3PL:CMPL have pants NEG
People of olden times didn't wear pants

- (b) $\bar{n}\bar{d}\bar{o}$ **lugu** **$\bar{t}s'\bar{a}g\bar{e}$**
 PRES gandura alone
It was a gandura by itself (that they wore)

The function of the preposition $\bar{t}s'\bar{a}$ 'alone' with its following noun phrase is comparable to the function of the adverb $\bar{y}\bar{i}g\bar{e}$ 'only' when it occurs within a noun phrase, functioning as a modifier of the head noun, as illustrated in the following example.

- (56) **d\bar{a}m\bar{o}** **$\bar{y}\bar{i}g\bar{e}$** **da** $w-\bar{o}$ $\bar{g}\bar{a}$ $\bar{r}\bar{e}$ $\bar{g}\bar{i}$ a $\bar{d}\bar{o}$
 sheep only CONTR 1SG-CMPL say 3SG:M:IO COMP NEUT:3SG:M bring
It was just a sheep that I told him to bring

11.3. Locative specifiers

There are two other markers which have two forms. The form used depends upon the nominal/pronominal realization of the object of the markers. When the object is nominal it follows the markers. The markers are like prepositions in these cases. However, when the object is pronominal it directly precedes the markers, and the markers take a nominal form (being followed by the definite determiner). I call these markers ‘locative specifiers’ whether they act like prepositions (with a following nominal object) or have their nominal form (with a preceding pronominal object). The following table gives the form of the locative specifiers with a nominal and pronominal object, and indicates their basic function. Each of these is discussed in turn below.

Form with nominal object	Form with pronominal object	Function
(a) <i>gē-i</i>	<i>ga yó</i>	‘near’
(a) <i>gó-l</i>	<i>gó dó</i>	‘on’

Table 11.3 Locative specifiers

11.3.1 *gē-i* ‘in front of, next to, by, at, near’

The form of this locative specifier when a nominal object follows (*gē-i* (mouth-NMOD:PL)) is morphologically complex. It is composed of an allomorph of *ga* ‘mouth’ and the plural form of the marker used in the noun-noun construction (discussed in section 6.2). In keeping with its lexical source, a common function of this marker is to convey that the situation expressed by the predicate occurs in front of, next to, by, at the referent of the object of the locative specifier. This is clearly seen when the object of the locative specifier is a concrete location as in the next example.

- (57) **ā** **dǎ** **gē-i** **wāləm** **só**
 3SG:M:CMPL put mouth-NMOD:PL hole DET:M
He put (it) in front of the hole

The location may also be understood abstractly.

- (58) **ā** **dǎ** **də** **gē-i** **nəmân** **ro-gə-n** **dó**
 3SG:M:CMPL put 3SG:F:IO mouth-NMOD:PL money MOD:F-POSS-3SG:M DET:F
He_i told her where his_i money was (lit. he_i put her (at) mouth of his_i money)

The locative specifier *gē-i* can also express the reason for a situation, as illustrated below.

- (59) **ne** **k'ǎma** **si** **a** **lāla** **gē-i** **doktór-e** **yó**
 NEUT:1PL:EXCL hide REFL PREP field mouth-NMOD:PL doctor-PL DET:PL
We would hide in the fields because (we were afraid) of the doctors

When the object of the locative specifier is pronominal, the locative specifier has a nominal form. This form is composed of the word *ga* ‘mouth’ followed by the definite determiner (*yó* (DET:PL)). This is illustrated in the next example. The noun phrase in pre-subject position (bolded) is co-referential with the pronoun *lə* (PRO).

- (60) **wāləm** **dé** [bǎ só]_{CS} **nda** [**lə** **ga** **yó**]_{CC}
 hole S.R. man DET:M be.at:M PRO mouth DET:PL
The hole, the man was in front of it

The locative preposition *a* can precede the locative specifier *gē-i*, forming a complex preposition. This can express a concrete location, as in the next example, or be used to convey the reason for a situation as in example (62) below.

- (61) ndá-l ʃi dágwi-e a gē-i fəro n-gó-də
 INCMPL-3SG:F pour fruit.pit-PL PREP mouth-NMOD:PL hut MOD:M-POSS-3SG:F
She was splitting fruit pits in front of her hut

- (62) a gē-i nyi ró da ...
 PREP mouth-NMOD:PL thing:ABSTR DEM:F CONTR
Because of that ...

The locative preposition *a* can also combine with the locative specifier when it has a pronominal object, though this is used as an idiomatic expression: *a lə ga yó* ‘right away’.

11.3.2 *gó-l* ‘on, on top of’

The form of this locative specifier when a nominal object follows (*gó-l* (head-NMOD:F)) is also morphologically complex. It is composed of *gó* ‘head’ and the feminine form of the marker used in the noun-noun construction. In keeping with its lexical source, a common function of this marker is to convey that the situation expressed by the predicate occurs on, on top of the referent of the object of the locative specifier, as seen in this next example.

- (63) w-ō dē rə gó-l galǝjimo dó
 1SG-CMPL put 3SG:M:DO head-NMOD:F camel DET:F
I put him on the camel

The location may also be understood abstractly.

- (64) ā só gó-l aliábu n-gə
 3SG:M:CMPL enter head-NMOD:F turban MOD:M-POSS
He ascended the throne of

- (b) abá n-gó-dan só
 father MOD:M-POSS-3PL DET:M
his father

When the object of the locative specifier is pronominal, the locative specifier has a nominal form. This form is composed of the word *gó* ‘head’ followed by the definite determiner (*dó* (DET:F)). This is illustrated in the next example. In the first line, the object of the locative specifier is nominal (*sí dó* ‘the tree’). In line (b), the object of the locative specifier is pronominal and as such the locative specifier has its nominal form.

(65) *só gó-l sí dó gó bári ro-ngó dó*
 IMP:2SG:enter head-NMOD:F tree DET:F with gourd MOD:F-POSS:2SG:M DET:F
Climb up the tree with your gourd

(b) *k'ani ā só la gó dó*
 CONJ 3SG:M:CMPL enter PRO head DET:F
Then he climbed up it (i.e., the tree)

The locative preposition *a* can precede the locative specifier *gó-l*, forming a complex preposition. This can express a concrete location, as in the next example, or be used to convey the reason for a situation as in example (67) below.

(66) *w-ō ka dá a gó-l*
 1SG-CMPL find 3SG:F:DO PREP head-NMOD:F
I found her on top of

(b) *sí n nondó kadá*
 tree MOD:M in.this.way such.and.such
such and such tree

(67) *aro mé-g ndə a gó-l hêr*
 CONJ IRR-2SG see PREP head-NMOD:F good.thing
Then you'll see (what I'll do for you) because of the good thing

- (b) [ro g-ō ha n]_{RC} dó
 MOD:F 2SG-CMPL do:APPL 1SG:IO DET:F
that you did to me

11.4 Summary

In this section I have described the functions of prepositions and locative specifiers. I distinguished transitive prepositions (which are always followed by their object) from the ambitransitive preposition *gə* whose object may be placed in pre-subject position or understood by context. When the object does not follow the preposition, it has its intransitive form *gó*. Another ambitransitive preposition *ts'ā* 'alone' is followed by its object when the referent of the object is human. If the argument modified by *ts'ā* 'alone' is non-human, then the intransitive form *ts'āgē* is used. Two markers, which I have called locative specifiers, function like prepositions when they have a nominal object (which follows the marker). When the object of the locative specifier is realized pronominally, it precedes the locative specifier, and the locative specifier has a different form.

12 Local adverbial demonstratives

Makary Kotoko has two sets of demonstratives: (i) nominal demonstratives, and (ii) local adverbial demonstratives. In contrast to nominal demonstratives, which generally point to an entity relative to the speaker, local adverbial demonstratives point to the location of the entity relative to the speaker. Though they point to a location, the local adverbial demonstratives code for the gender/number of the entity at the location being pointed to. This is an important point. These forms don't just indicate that an entity is 'here' or 'there' based on the proximal/distal feature they code.¹ These forms also code the gender/number of the entity located 'here' or 'there'. The following table gives the forms of the local adverbial demonstratives.

Gender/Number	Proximal/Distal	Local adverbial
M	Proximal	ndaw(e) / nday
	Distal	nda te
F	Proximal	ndówe
	Distal	n-te
PL	Proximal	ndewe / ndey
	Dist	nde te

Table 12.1 Local adverbial demonstratives

The local adverbial demonstratives occur in three syntactic positions: (a) as the verbless clause complement in the juxtaposition construction (which is described in more detail in section 21.1), (b) within the noun phrase as a modifier of the head noun (but distinct in form and function from the

¹ To simply point to a location near or far from the speaker, Makary Kotoko uses the term *ngō* 'place' followed by somewhat exceptional realizations of the nominal demonstrative forms (*ngō ró* (place DEM:F) 'here', *ngō to ró* (place DIST DEM:F) 'there'. Note for the distal form that the distal marker is realized [to] instead of the expected *te* likely assimilating to the mid back vowel in the preceding and following word.

nominal demonstratives), and (c) in clause initial position, functioning adverbially. I provide illustrations of each of these functions below. I follow this with a discussion of a marker *ndá* which is formally similar to the local adverbial demonstratives but for which I have as yet been unable to determine a function.

12.1 Local adverbial demonstrative as verbless clause complement

When the complement of the juxtaposition construction is a noun (phrase), the construction is generally understood to convey identity (i.e., equating the subject and its complement). When the local adverbial demonstrative functions as a complement, the construction expresses the (relative) location of the subject. The examples below show the local adverbial demonstrative functioning as the verbless clause complement in the juxtaposition construction. The examples provided vary by gender/number and the proximal/distal feature. Note that the local adverbial demonstrative codes for the gender/number of the subject.

This next example is lengthy but valuable because it provides clear evidence that these forms of the demonstratives express locative information relative to the speaker. In the first four lines, the speaker is asking where a particular person is. Line (e) provides the answer, making use of the local adverbial demonstrative.²

² Lines (b)-(d) of this example are a postposed noun phrase which constitutes the copula subject of the locative copula in the first line of the example. As such, exceptionally, the copula complement precedes the copula subject.

Proximal local adverbial demonstrative referring to a masculine referent

- (1) a gə gí nda [he]_{CC}
 NEUT:3SG:M say COMP be.at:M what
He said, “Where
- (b) [blō_{RC1}[n ā tágə ʃá ro-g-u gí
 man MOD:M 3SG:M:CMPL eat cow MOD:F-POSS-1SG COMP
is the man that ate my cow because
- (c) m-á gá n amsó_{RC2}[n a dala
 IRR-3SG:M say 1SG:IO word MOD:M NEUT:3SG:M not.exist
he would (be able to) tell me something that doesn't exist
- (d) a gó ro-gə dunía]_{RC2}]_{RC1} só]_{CS}
 PREP head MOD:F-POSS world DET:M
on the face of the earth?”
- (e) k'ani ló só ā gə gí [don]_{VCS} [ndawe]_{VCC}
 CONJ child DET:M 3SG:M:CMPL say COMP 1SG:IND DEM:M
Then the boy said, “I'm (over) here”

In this next example the verbless clause subject refers to an action. As such, the location is understood abstractly.

Proximal local adverbial demonstrative referring to a feminine referent

- (2) [nyi [ro ló só ā hən]_{RC} da]_{VCS} [ndówe]_{VCC}
 thing:ABSTR MOD:F child DET:M 3SG:M:CMPL do CONTR DEM:F
Here is what the boy did

Proximal local adverbial demonstrative referring to a plural referent

- (3) we lū [sáne n yó]_{VCS} [ndey]_{VCC}
 NEUT:2PL come wrap.around.skirt MOD:PL:POSS:2PL DET:PL DEM:PL
Come, your wrap around skirts are here

Distal local adverbial demonstrative referring to a plural referent

- (4) aro [sam só]_{VCS} [nda te]_{VCC} a lə
 CONJ ram DET:M DEM:M DIST PREP PRO
The ram is there at it

12.2 Local adverbial demonstrative as noun modifier

The next group of examples show the local adverbial demonstrative as an element within the noun phrase which modifies the head noun. The examples vary by gender/number and the proximal/distal feature. Evidence that the local adverbial demonstrative is part of the noun phrase is two-fold: (i) it is preceded by the modifying marker (*ro* (MOD:F) or *n* (MOD:M/PL)), and (ii) the definite determiner occurs at the end of the noun phrase. In this next example, the local adverbial demonstrative occurs at the end of the first line, directly before the definite determiner.

Proximal local adverbial demonstrative with feminine head noun

- (5) n-ō gə n gí sare ro ndówe dó
 3SG:F-CMPL say 1SG:IO COMP cotton MOD:F DEM:F DET:F
She said to me, “The cotton here

- (b) u ná he lán ...
 NEUT:1SG remove.seed L.P. completely
I (must) completely remove the seeds (from it)”

Note in this next example that the local adverbial demonstrative precedes the color adjective *ngaba* ‘white’. Were this the nominal demonstrative it would follow the adjective.

Proximal local adverbial demonstrative with plural head noun

- (6) kúmdū-e n-gá-ne n ndewe ngaba yó ...
 beard-PL MOD:PL-POSS-1PL:EXCL MOD:PL DEM:PL white DET:PL
Our white beards here ...

Similarly, note in this example that the local adverbial demonstrative precedes the prepositional phrase.

Were this the nominal demonstrative it would follow the prepositional phrase. The prepositional phrase clarifies where ‘there’ is.

Distal local adverbial demonstrative with plural head noun

- (7) wre mēgə n nde te a dabú l lam yó
 2PL:IND people MOD:PL DEM:PL DIST PREP middle NMOD:F river DET:PL
You people there in the middle of the river,

- (b) we hāmo
 NEUT:2PL be.wrong
what’s wrong?

The proximal/distal distinction is highlighted in the next example. The proximal form is used in the first line, the distal form occurs in line (c). The context of this story is that a woman is telling a young boy which clay jar he should drink out of – the one in close proximity, not the one further away.

Proximal/Distal contrast for local adverbial demonstratives

- (8) amé yó yá-g sē aro dāgwe n ndawe n
 water DET:PL VOL-2SG drink CONJ clay.jar MOD:M DEM:M MOD:M
If you want to have a drink of water, then the clay jar here

- (b) a gə ka-ho só da sē waro
 PREP PREP find-house DET:M CONTR IMP:2G:drink DISJ
by the house, drink (from it), but

- (c) en nda te só tá-g de yó wa
 3SG:M DEM:M DIST DET:M PROH-2SG open L.P. NEG
the one (over) there, don’t open (it)

12.3 Local adverbial demonstrative in clause initial position

The local adverbial demonstratives also occur in clause initial position (following any sequential marker and pre-subject noun phrases). It provides relative locative information for one of the arguments of the clause or for the situation described by the clause. The next group of examples show the local adverbial demonstratives functionally adverbially in clause initial position. The examples vary by gender/number.

The context of this next story is that a man has had to leave his son behind to flee an attacker. When he returns, he goes looking for his son, and a woman lets him know that she has been taking care of the boy in his father's absence. The proximal local adverbial demonstrative occurs at the beginning of the direct speech in line (c).

Proximal local adverbial demonstrative with masculine gender referent

- (9) ... gə yá gə ngō [ro
 NEUT:2SG want PREP place MOD:F
 ... *you look for where*
- (b) [ló n-gó só]_{CS} nda [lə]_{CC}_{RC}
 child MOD:M-POSS:2SG:M DET:M be.at:M PRO
your son is
- (c) **ndawe** don da w-ō k'ō gá-n
 DEM:M 1SG:IND CONTR 1SG-CMPL catch PREP-3SG:M
 “*Here (he is), I'm the one that took care of him*”

The context of this next story is that a hyena thinks he has stolen lion's wife, a gazelle, and is taking it back to his wife so they can eat it. The local adverbial demonstrative occurs at the beginning of line (b).

Proximal local adverbial demonstrative with feminine gender referent

- (10) mā əl lé
 woman NMOD:F child:PL

Dear,

- (b) ndówe w-ō dō ɖi ro-gə-n dó
 DEM:F 1SG-CMPL bring thing:CONC MOD:F-POSS-3SG:M DET:F

Here (it is), I brought his thing (i.e., his wife)

In this next story, the narrator recounts how the colonizers came and took away the jobs of the commoners (by providing the same products the Kotoko produced but at cheaper prices), leaving them with no work to do.

Proximal local adverbial demonstrative with plural referent

- (11) kíða dó ... ē i gə məskír-e
 work DET:F 3PL:CMPL snatch PREP poor-PL

They took the work away from the poor people

- (b) ndewe i sən kíða [ro i hən]_{RC} wa
 DEM:PL NEUT:3PL know work MOD:F NEUT:3PL do NEG

Here (they are and) they don't know what work to do (anymore)

In this next example, the local adverbial demonstrative occurs at the beginning of speaker B's speech.

Distal local adverbial demonstrative with plural referent

- (12) **A:** mēy kábār-e i g-amsó la he
 people.of grave:PL NEUT:3PL say-word MMR what

“How could the deceased be talking?”

- (b) **B:** hâ nde te ndá-y g-amsó dó
 INTERJ DEM:PL DIST INCMPL-3PL say-word CONJ

“Ha! There, they're talking

- (c) **B:** ndá-g ʃĩn gó wá
 INCMPL-2SG hear PREP TAG
You hear (them), don't you?"

When referring to a situation, the relative location expressed by the local adverbial demonstrative is understood abstractly. In these cases, the feminine form of the local adverbial demonstrative is used. This is probably because the word *nyi* (thing:ABSTR), which is used to refer to situations and actions, is of feminine gender. In this next example, the local adverbial demonstrative comes at the beginning of the directly reported speech.

- (13) ā dǔ abá n-gó-dan gí
 3SG:M:CMPL greet father MOD:M-POSS-3SG:M COMP
He greeted his father,

- (b) **ndówe** w-ō lū gó māwru n-g-u
 DEM:F 1SG-CMPL come with guest MOD:M-POSS-1SG
"I've come with a guest"

12.4 Marker *ndá*

There is a marker *ndá* for which I have been unable to establish a clear function. In some cases, it seems to indicate that something unexpected/surprising has happened or is about to happen. In others, it seems to function like a presentational marker, comparable to the French expression 'voilà que ...'. Still, in others, it is unclear what contribution *ndá* makes to the clause. In discussing examples of *ndá* in the corpus with native speakers of the language, they indicated that the term can be removed with no apparent change in meaning. The marker *ndá* is similar to the local adverbial demonstratives in phonological shape, containing the prenasalized stop /nd-/. Also, the marker *ndá* occurs in clause initial

position – one of the syntactic positions in which the local adverbial demonstratives occur. In the next example it occurs between two clauses. There is a clear prosodic break before *ndá*.

- (14) *ā* *ka* *dó* ***ndá*** *n-ō* *hyû*
 3SG:M:CMPL find 3SG:F:DO ? 3SG:F-CMPL be.skinny
He found her. She had grown thin.

Like the local adverbial demonstratives, it can occur at the beginning of directly reported speech, as shown below.

- (15) *ā* *gə* *də* *gí* ***ndá*** *hó* *dó* *m* *dáwo* *do*
 3SG:M:CMPL say 3SG:F:IO COMP ? house DET:F NEUT:1PL:INCL buy PRO
He said to her, “Let’s sell the house”

Like local adverbial demonstratives, *ndá* follows sequential markers, as shown in line (c) below.

- (16) **A:** *n-ō* *ɕjí* *he* *garo*
 3SG:F-CMPL remain L.P. how.many
How many remain?

- (b) **B:** *n-ō* *ɕjí* *he* *gāsi*
 3SG:F-CMPL remain L.P. two
Two remain

- (c) **A:** *aro* ***ndá*** *dégā* *n* [*no* *əl* *hən* *gāsi*]_{RC} *dó*
 CONJ ? IMP:2SG:show 1SG:IO 3SG:F NEUT:3SG:F do two DET:F
Then show me the second one

Also, like the local adverbial demonstratives, *ndá* follows any pre-subject noun phrases, as shown in the next example where the pre-subject noun phrase is unmarked (cf. chapter 26 for a discussion of the pragmatic functions of placing noun phrases in pre-subject position).

- (17) abá n-gó-dan só **ndá** ā sā tón
 father MOD:M-POSS-3PL DET:M ? 3SG:M:CMPL sit ground
His father was sitting

- (b) a gó-l dógē
 PREP head-NMOD:F chair
on a chair

However, it is not at all clear that *ndá* has a deictic function as the local adverbial demonstratives do. Also, while the local adverbial demonstratives agree in gender/number with the entity being located relative to the speaker, the marker *ndá* remains unchanged regardless of the gender/number of the entities around it. Additional study is needed to establish a function for the marker *ndá*.

12.5 Summary

This chapter described the functions of the local adverbial demonstratives. Local adverbial demonstratives have a deictic function, pointing to a location at which an entity is situated relative to the speaker. The local adverbial demonstratives are coded for the gender/number of the entity at the indicated location. These demonstrative forms can function as the complement in non-verbal predication, as a modifier of a noun, and in clause initial position, functioning adverbially. I then discussed the marker *ndá* which phonologically and syntactically is similar to the local adverbial demonstratives in some respects, but for which I have been unable to establish a clear function.

13 Aspect/mode coding

Mahamat (2005) notes six auxiliaries as he calls them that distinguish different TAM information for the clause. The chart below summarizes the similarities and differences between his terms and mine (labeled SDA). Brief comments about the differences are made below.

Form	Mahamat 2005	SDA	Form
-ò	Perfective	Completive	-ō
ndá-	Progressive	Incompletive	ndá-
∅	Habitual	Neutral	∅
m´-	Future	Irrealis	m´-
yá-	Volitive	Volitive	yág-
tá-	Negative imperative	Prohibitive	tá-

Table 13.1 Comparing terms

Mahamat marks the tone on the completive suffix as L (2005: 85, 86). In my corpus it is realized as M (cf. section 13.1 below). This is an important distinction in the language since it differentiates some of the forms of the completive from those of the neutral forms which are identical except for their tonal realization (cf. section 2.5.7). For Mahamat (2005) (and Tourneux (2000a, 2009a)) this distinction is lost.

The forms with ndá- are analyzed as expressing progressive aspect by Mahamat. My analysis proposes a broader characterization of the function of this form (cf. section 13.2).

Mahamat analyzes the bare subject forms (the neutral form in my terminology) as an habitual marker. In my analysis, habituality is one possible interpretation of a sentence

containing the neutral form but it is not the function of the form itself (cf. section 13.6 for details).

The forms with m´- are analysed as future markers by Mahamat. In my analysis, these forms need not refer to a future event, though this is a possible (and common) interpretation (cf. section 13.3).

Mahamat considers the source of the volitive marker to be the verb *yá* ‘become’. In my corpus this word is marked with M tone (*yā*), a distinction that Mahamat doesn’t make. My analysis proposes that the volitive marker is derived from the prepositional verb *yá gó* ‘want, need, look for’ (cf. section 13.4 for the evidence to support this analysis, and section 17.5 regarding what I call prepositional verbs).

In my analysis, there are five morphologically marked paradigms of subject markers corresponding to five aspectual/modal distinctions that are made in the language: *completive*, *incompletive*, *irrealis*, *volitive*, and *prohibitive*.¹ The proposed function of the completive is to code the completed nature of the situation described in the clause. For the incompletive, the proposed function is to code the incompleted nature of the situation described in the clause. The proposed function of the irrealis is to code that the action of the clause in which the marker occurs is potentially unrealized. The function of the volitive is to code that the subject wishes/wants the situation of the clause to come about. Finally, the prohibitive codes a negative

¹ Cf. section 24.1 for a discussion of 2SG imperatives for which the verb occurs without any subject marker.

imperative. None of the markers code for tense so the temporal framework is provided by context (e.g. temporal adverbs). In addition to these morphologically marked paradigms, there is a sixth paradigm which does not appear to have any morphological marking other than the bare form of the subject markers. I refer to this sixth paradigm as the *neutral* aspect form of the language – neutral with respect to the coding of aspect/mode. Clauses which contain the neutral forms are pragmatically dependent for both their temporal and aspectual/modal framework.

Though I use the terms aspect and mode, I write them as aspect/mode to indicate that this represents a single coding domain for Makary Kotoko since the forms are all mutually exclusive. That is, only one form from any of the six paradigms can occur within a given verbal clause. As such, aspect and mode are not distinct coding domains in the language. There is one category in the language ‘aspect/mode’ which covers features that in other languages are coded by separate domains: aspect and mode. For lack of a term that encompasses both notions, I make reference to the coding domain ‘aspect/mode’. For each paradigm, I present the forms used, propose a function for each, provide evidence in support of the proposed function, and illustrate some syntactic contexts in which the forms of the paradigms are used. The following table gives the six aspect/mode paradigms of Makary Kotoko.²

	Subject	CMPL	INCMPL	IRR	VOL	PROH	NEUT
Person		-ō	ndá-	m’-	yá(g)-	tá-	∅
1SG	w	wō	ndáw	mú	yáw	táw	u

² Cf. Mahamat (2005:194-199) for a discussion and formalization of the attribution of tone on the aspect/mode/subject markers from the perspective of a two tone system for Makary Kotoko.

	Subject	CMPL	INCMP	IRR	VOL	PROH	NEUT
2SG	g	gō	ndág	móg	yág	tág	gə
3SG:M	a	ā	nda	má	yága	tá	a
3SG:F	l	nō	ndál	mól	yál	tál	əl
1PL:INCL	m	mō	ndám	ím	yám	tám	m
1PL:EXCL	ne	nē	ndáne	móne	yáne	táne	ne
2PL	we	wē	ndáwe	mówe	yágwe	táwe	we
3PL	y	(y)ē	ndáy	mí	yáy	táy	i

Table 13.2 Summary of forms of aspect/mode/subject markers

I write the subject markers (with their aspect/mode coding) separately from the following verb instead of as a prefix on the verb. Justification for this comes from the acceptable syllable types of the language. In section 2.3, I provide evidence for syllabic nasals in word initial position. If the subject markers were part of the verb, then when the verb was marked with the pluractional prefix /n'-/ (cf. section 14.3 for details) following a subject marker that ends with a consonant (e.g. *ndá-l* (IMPRF:3SG:F)), the outcome would have a syllabic nasal word internally – a violation of the acceptable syllable types of the language.

(1) **ndá-l-n-sí**

*[ndál.ŋ.sí]

IMPRF:3SG:F-PL-take

She was taking (it) (repeatedly)

13.1 Completive

The function of the completive aspect is to code the completed nature of the situation described in the clause. Formally, the completive paradigm is distinct from the other paradigms because: (i) it has a distinctive M tone for all persons, and (ii) the completive aspect marker /-ō/

is suffixed to the subject markers while all other aspect/mode codings are prefixes. Formally then there is a basic distinction between the suffixing of the completive aspect and the prefixing of the other aspect/mode codings.

Person	Subject	Completive
		-ō
1SG	w	wō
2SG	g	gō
3SG:M	a	ā
3SG:F	l	nō
1PL:INCL	m	mō
1PL:EXCL	ne	nē
2PL	we	wē
3PL	y	(y)ē

Table 13.3 Completive aspect subject markers

Of formal note is the apparent stem change from one sonorant to another ([l] to [n]) for the 3SG:F subject marker, and the fact that, when present, the vowel of the subject marker is maintained when the completive marker is added (though lowered for the third person plural). The 3PL:CMPL form is realized *yē* for some speakers, but *ē* for the majority of speakers. I consistently write it as *ē* in the examples.

As noted above, I propose that the function of the completive is to code the completed nature of the situation described in the clause. Since it codes a completed action, the situations of the clauses in which it occurs are often referring to past events, as past events are often presented as complete. However, this need not be. The completive can also be used to refer to

situations in the present or (potential) future as well. Its use is independent of the time frame of the event. This fact gives evidence against this marker being a past tense marker. The speaker uses the completive to indicate that he considers the situation of the clause to be complete. In this first example, a series of three situations are described. By context, it is understood that this is presented as an event in the past. Note that the completive is coded on each instance of the subject marker.

Past time frame:

- (2) **ā** sī mfo gāsi **ā** pó **ā** do rə
 3SG:M:CMPL take millet two 3SG:M:CMPL cook 3SG:M:CMPL take.to 3SG:M:IO
He₁ took two millet grains, cooked (them) and took (them) to him₂

The temporal adverb at the beginning of the first line of the next example places the situation of the clause in the present time frame yet the completive aspect is used. As such, it indicates that the subject has entered the state of being poor.

Present time frame:

- (3) na dó a-sé-ró ro-gə-n dó
 now DET:F PREP-day-DEM:F MOD:F-POSS-3SG:M DET:F
Now, such as he is today,

- (b) **ā** yā məskîn
 3SG:M:CMPL become poor
he has become poor

The completive is used in the protasis of the conditional construction in the next example. Using the completive indicates that if the action referred to is completed (at some potential future time), then some other situation will unfold.

Potential future time frame:

- (4) sá ro **g-ō** hān aro gúrsə dó mó-l gē
 day MOD:F 2SG-CMPL do CONJ money DET:F IRR-3SG:F be.finished
If you do (it) then your money will be finished

The completive can occur in other types of subordinate clauses as well. In the next example it occurs in the adverbial clause of reason introduced by the marker *gí*. The event of the adverbial clause of reason is presented as complete through the use of the completive aspect.

- (5) ē dē gó yo gí gālk'e ē gē
 3PL:CMPL disburse PREP L.P. COMP old:PL 3PL:CMPL be.finished
They disbursed because the elders were (all) dead

Likewise, the completive aspect can occur within relative clauses, portraying the completed nature of the situation of that clause.

- (6) ā kō rə nyi [ro **n-ō** gá si
 3SG:M:CMPL tell 3SG:M:IO thing:ABSTR MOD:F 3SG:F-CMPL put REFL
He_i told him_j what happened

- (b) gá-n ho]_{RC} dó ho
 PREP-3SG:M L.P. DET:F L.P.
to him_i

The completive also occurs in negative clauses. In this next example, the man's absence during his father's sickness is presented as complete through the use of the completive. That is, he wasn't present at all during the period of time that his father was sick.

- (7) **ā** bīā ʃārgū ro-gə abá
 3SG:M:CMPL attend sickness MOD:F-POSS father
He wasn't there when his father

- (b) n-gé-dan dó he wa
 MOD:M-POSS-3PL DET:F L.P. NEG
was sick (lit. he didn't attend his father's sickness)

The completive can occur with pluractional verbs. Pluractional verbs are verbs that express either the repetition of an action on a single object, or the occurrence of a single action on multiple objects, or the combination of the two – the repetition of an action on multiple objects. This is discussed in section 14.3. That fact that the completive can occur with pluractional verb forms does not contradict its proposed function. Though the action is presented as repeated, the repetition of the action is presented as completed.

- (8) nəmān dó **n-ō** n-dǔ
 money DET:F 3SG:F-CMPL PL-put
The money, she told

- (b) gómnárū n-gé-də lə ga yó
 lover MOD:M-POSS-3SG:F PRO mouth DET:PL
her lover where it (all) was

I have proposed that the function of the completive marker is to code the completed nature of the situation of the clause in which it occurs. I have demonstrated that it is not a past

tense marker by the fact that it can occur in non-past time frames. I have also shown that it can occur in subordinate clauses, negative clauses, and with a verb coded with the pluractional marker. None of these environments produces a change in the form or function of the completive marker.

13.2 Incompletive

The function of the incompletive is to code the incompleted nature of the situation described in the clause. The incompletive morpheme /ndá-/ is likely derived from the locative copula *nda* (be.at:M) which is used in the locative copula construction (cf. section 21.4).

Locative copula: *nda* (be.at:M)

- (9) [blō n si má]_{CS} **nda** [wo dó]_{CC} wa
 man MOD:M NONSPEC:M FOC be.at:M village DET:F NEG
No one was at the village

The incompletive marker is prefixed to the subject markers to produce the incompletive paradigm forms.

Person	Subject	Incompletive
		ndá-
1SG	w	ndáw
2SG	g	ndág
3SG:M	a	nda
3SG:F	l	ndál
1PL:INCL	m	ndám
1PL:EXCL	ne	ndáne
2PL	we	ndáwe
3PL	y	ndáy

Table 13.4 Incompletive aspect subject markers

The tone of the 3SG:M form is low instead of the expected high tone that occurs for all the other forms. I'm not sure why. The 1PL:EXCL and 2PL forms are often realized [ndénè] and [ndéwè], respectively. That is, the vowel of the incomplete marker is apparently fronted by the presence of the mid front vowel of the subject marker. In similar fashion, the 3PL form is often realized [ndéy] or even [ndí], presumably due to the presence of the following palatal glide.

I propose that the function of the incomplete is to code the incomplete nature of the situation described in the clause. Since it codes an incompleting action, the situations of the clauses in which it occurs can be understood as ongoing actions, habitual actions (which, because they are habitual, are portrayed as incomplete), and actions that are about to happen. Which of these notions is conveyed is determined by context. As such, a full understanding of a clause containing the incomplete aspect marker requires a consideration of the larger discourse context. Like the complete, the incomplete is not linked to any temporal point of reference so it can be used for a continuous or habitual event in any time frame (past, present, future). This fact gives evidence against this marker being a present tense marker. I begin by illustrating the use of the incomplete expressing an incomplete action which by context is understood as an ongoing action in the past, present, and future, respectively.

In this next example, the larger context places the situation in the past. The proposed function of the incomplete is to indicate that the situation it describes is incomplete. As such,

in this context, it is understood that the old woman is breaking up fruit when the man finds her.

That is, the action is understood as ongoing.

Past time frame:

- (10) ā dō wo ro so
 3SG:M:CMPL go village MOD:F NONSPEC:F
 He went to a village

- (b) k'ani ā ka gəlk'a ndá-1 ji dágwīe
 CONJ 3SG:M:CMPL find old:F INCMPL-3SG:F break fruit.pit
 He found an old woman. She was breaking up fruit pits

The context of the next example is the present (as evidenced by the temporal adverb at the beginning of the first line). The speaker is describing what he is doing at the point of speaking.

Present time frame:

- (11) k'ani na dó kída ro-gə-dan n-ō gē
 CONJ now DET:F work MOD:F-POSS-3PL 3SG:F-CMPL be.finished
 Now, their work is done (and)

- (b) ndá-w to
 INCMPL-1SG return.home
 I'm going home

In this next example the speaker is referring to an action that will potentially occur in the future. Using the incomplete, the action is presented as incomplete. By context, it is understood that the action of entering is ongoing. The speaker is giving the addressee advice on how to behave while entering the place in question.

Potential future time frame:

- (12) ngō ro **ndá-m** só lə
 place MOD:F INCMPL-1PL:INCL enter PRO
When we're going in

- (b) aro kangwade tá-l s̄ā kən wa
 CONJ fear PROH-3SG:F sit 2SG:M:IO NEG
don't be afraid
(lit. that fear not sit with you)

As noted above, because the function of the incomplete is to present the situation of the clause as incomplete, it can be used in contexts where the action of clause is understood as an habitual event. The context of this next example places the events in the past. The speaker is describing what would happen when the white men would come to the village. He is not referring to one particular incident but to what regularly happened at that time. The speaker makes use of the incomplete aspect to express the incomplete nature of the action. Context leads the addressee to understand that these are habitual events and not ongoing events in the past.

Past time frame:

- (13) aro nasaré **ndá-y** lū aro **ndá-ne** fō ní
 CONJ white.man:PL INCMPL-3PL come CONJ INCMPL-1PL:EXCL run L.P.
When the white men would come we would run away

The next example is situated by context at the moment of speech. The speaker uses the incomplete, thus expressing the incomplete nature of the action of the clause. Context is needed to understand whether the incompleting action is ongoing or habitual. That is, the

question could be used to ask ‘What work are you doing (at this moment)?’ or ‘What work do you do (regularly)?’ In this case, the speaker is not asking the addressee what work she is in the process of carrying out, but what work she generally does. This is only determined by context.

The contribution of the incomplete is to simply indicate that the action is incomplete.

Present time frame:

- (14) tó **ndá-g** hōn kídā wadí
 2SG:F:IND INCMPL-2SG do work what
What work do you do?

Clauses with the incomplete in them are most often interpreted by context as either ongoing or habitual. There are instances in the corpus, however, where the action of the clause is understood as something that is about to happen. Keep in mind that this is not a function of the incomplete. The incomplete simply expresses the incomplete nature of the action.

Context, however, can contribute the information necessary to understand that the action of the clause coded with the incomplete is about to happen. This is most often the case with verbs of motion, as shown below.

- (15) don só **ndá-w** dē ní dēge
 1SG:IND DET:M INCMPL-1SG go L.P. INTENS
I'm leaving / going to leave

When the incomplete is followed by other clauses, the whole of which represents a series of connected events, quite often the following clauses will be coded with neutral aspect.

This is unlike the case for the completive, where the subject marker of each clause was coded with the completive aspect marker.

- (16) **ndá-ne** dē ní **ne** kō ho a kábār dó
 INCMPL-1PL:EXCL go L.P. NEUT:1PL:EXCL lift L.P. PREP grave DET:F
We're going to raise (her) up from the grave

- (b) **ne** dō də ho
 NEUT:1PL:EXCL bring.to 3SG:F:IO house
and bring her home

Like the completive, the incompletive can occur in subordinate clauses. In this next example it occurs in an adverbial clause of reason. By context, it is understood that the action of the clause is about to happen.

- (17) sáḃē g-u gí **ndá-w** dē gá-də ho
 wait PREP-1SG COMP INCMPL-1SG go PREP-3SG:F L.P.
Wait for me because I'm going to (get) her

It can occur in relative clauses, expressing the incomplete nature of the situation of that clause.

By context, it is understood here as an ongoing action.

- (18) yayá n [n
 older.sibling MOD:M:POSS:2PL MOD:M
Your older brother

- (b) **nda** sā tón mádǎ]_{RC} só ...
 INCMPL:3SG:M sit ground for.nothing DET:M
who is not currently occupied ...

Also like the completive, the incompletive can occur in negative clauses.

- (19) **nda** dū gó də wa
 INCMPL:3SG:M walk with 3SG:F NEG
He's not having sex with her
(lit. he's not walking with her)

The incomplete also occurs with pluractional verbs. In the following example a single action performed by multiple people occurs on multiple objects. The larger context enables the addressee to understand that the incomplete action (by the coding of the incomplete) is an habitual event in the past.

- (20) **nda-y** m-bó dan nówé n-gó-dan yó
 INCMPL-3PL PL-enter 3PL:IO finger:PL MOD:PL-POSS-3PL DET:PL
They₁ would prick their₂ fingers.

A common way to pass on a greeting to someone who is absent is to use the incomplete aspect. This would be in keeping with the proposed function of the incomplete as coding the incomplete nature of the action of the clause since at the time of requesting that the greeting be passed on, the action is incomplete.

- (21) gə abáná n maʃi gí
 IMP:2SG:tell uncle MOD:M:POSS:2PL hyena COMP
tell your uncle Hyena that

- (b) **nda-w** dē rə
 INCMPL-1SG greet 3SG:M:DO
I greet him

I have proposed that the function of the incomplete marker is to code the incomplete nature of the situation of the clause in which it occurs. I have demonstrated that it is not a

present tense marker by the fact that it can occur in non-present time frames. Though the incompletive only codes the incomplete nature of the situation of the clause, such clauses can be understood as expressing an ongoing action, an habitual action, or an action that is about to happen depending upon the larger context. I have also shown that the incompletive can occur in subordinate clauses, negative clauses, and with a verb coded with the pluractional marker. None of these environments produces a change in the form or function of the incompletive marker.

13.3 Irrealis

The function of the paradigm of forms which I have called the irrealis is to code that the action of the clause in which the marker occurs is presented as potentially unrealized. The source of the irrealis morpheme /m'-/ is unknown. Like the incompletive marker, it is prefixed to the subject markers.

Person	Subject	Irrealis
		m'-
1SG	w	mú
2SG	g	móg
3SG:M	a	má
3SG:F	l	mól
1PL:INCL	m	ím
1PL:EXCL	ne	móne
2PL	we	mówe
3PL	y	mí

Table 13.5 Irrealis mode subject markers

The 1SG and 3PL subject markers are vocalized when the irrealis marker is prefixed. An epenthetic vowel is added between the irrealis marker and the subject marker for the 2SG, 3SG:F,

1PL:EXCL, and 2PL forms. Quite often the 1PL:EXCL and 2PL forms are shortened to [nê:] and [wê:], respectively.

The proposed function of the irrealis forms is to code that the action of the clause is potentially unrealized. By context, this is often understood to refer to a future event, whether it be a future event relative to speech time or to some other temporal point of reference. Keep in mind that the irrealis does not code futurity, but that the event of the clause is presented as potentially unrealized. The effect of context can considerably vary how the use of the irrealis is understood. In this next example, the irrealis occurs in a clause which is understood by context to refer to a point in the future relative to the time of speech.

- (22) **m-ú** fə si he do kálēw
 IRR-1SG change REFL L.P. as dog
I'll change (myself) into a dog

For this next example, the action of the clause containing the irrealis is understood as happening in the future relative to some past time point of reference. The contribution of the irrealis marker is simply to mark the action as potentially unrealized.

- (23) w-ō ka rə aro **m-ú** la rə
 1SG-CMPL find 3SG:M:DO CONJ IRR-1SG kill 3SG:M:DO
If I had found him I would have killed him

- (b) đamá w-ō ka rə wa
 ADVERS 1SG-CMPL find 3SG:M:DO NEG
but I didn't find him

The irrealis also occurs in contexts where the action of the clause is understood as a probability or possibility. This is not contrary to the proposed function of the irrealis to present the action of the clause as potentially unrealized. If an event probably happened it is still possible that it didn't and so using the irrealis marker would be appropriate. In this next example, context contributes to the understanding that the event of the clause containing the irrealis marker probably happened.

(24) ɕi ro so n-ō bó n ga
 thing:CONC MOD:F NONSPEC:F 3SG:F-CMPL enter 1SG:IO mouth
The thing that entered my mouth

(b) púlút dó **m-í** yā fá só
 IDEO CONJ IRR-3SG:F become cow DET:M
in that manner must have been the cow

The irrealis occurs in clauses which by context are understood to refer to a generic event in the past. I propose that this is still in keeping with the function of the irrealis of coding a potentially unrealized event since a particular event is not presented as having actually happened. These types of clauses seem similar in function to the use the incompletive to refer to habitual past events. This next example describes the time period during the colonial era when health centers were being set up in the Kotoko area.

(25) **m-í** la kən wakítā mádǎ
 IRR-3PL write 2SG:M:IO letter for.nothing
They would only write a letter (of prescription) for you

- (b) aro **má-g** dǎ parmasîn **má-g** dówo kurkûn
 CONJ IRR-2SG go pharmacy IRR-2SG buy medicine
then you would go the pharmacy and buy medicine

Notice in line (b) of the preceding example that the 2SG is used to refer to a generic person (and not the addressee) that would have gone through the situations described in the past.

When the irrealis is followed by other clauses, the whole of which represents a series of connected events, the following clauses may be coded with irrealis marking (as in (25) above) or with neutral aspect, as shown below. The presence or absence of the irrealis marker on subsequent subject markers may depend on whether those clauses constitute separate sentences or clauses of a single sentence. In the example below, the situations described in the three clauses are presented as one complex event.

- (26) **m-ú** dǎ ní u sī u dǎ mo
 IRR-1SG go L.P. NEUT:1SG take NEUT:1SG bring.to 1PL:INCL:IO
I'll go get (it and) bring (it) for us

The irrealis can occur in subordinate clauses, as shown in the next two examples where it is in an adverbial clause of reason and a relative clause, respectively. In this first example, context indicates that the action of the clause containing the irrealis marker happens in the future relative to speech time.

- (27) tá-we gə wa gí **m-í** la n
 PROH-2PL say NEG COMP IRR-3PL kill 1SG:DO
Don't tell (anyone) because (if you do) they'll kill me

- (28) wa [n **m-í** dē gwá]_{RC} lāke yó ...
 thing:CONC:PL MOD:PL IRR-3PL throw cry each DET:PL
Each of the things that might cause diarrhea ...

The irrealis also occurs in negative clauses.

- (29) ló l swá-é dó **mó-l** sā ne ga wa
 child NMOD:F arab-PL DET:F IRR-3SG:F sit 1PL:EXCL:IO mouth NEG
An Arab lady won't reign over us

Like the completive and the incompleted, the irrealis occurs with pluractional verbs.

- (30) **m-á** n-dǒ gə-ne ensé ho
 IRR-3SG:M PL-put PREP-1PL:EXCL foot:PL L.P.
He'll step all over us

I have proposed that the function of the irrealis marker is to code the potentially unrealized nature of the situation of the clause in which it occurs. It typically occurs in clauses which, by context, are understood to happen in the future relative to an established point of reference. It also occurs in contexts where the situation of the clause is understood to be probable/possible, or a generic event in the past. I have also shown that the irrealis can occur in subordinate clauses, negative clauses, and with a verb coded with the pluractional marker. None of these environments produces a change in the form or function of the irrealis marker.

13.4 Volitive

The function of the paradigm of forms which I have called the volitive is to code that the subject wishes/wants the situation of the clause to come about. The source of the volitive morpheme /yá(g)-/ is most probably the prepositional verb *yá gə* 'want, need, look for'. This

verb is always followed by the general preposition *gə*. When the object of the preposition follows, it has its ‘transitive’ form *gə*, as shown below.

- (31) i **yá** **gə** blō [n a dō dan skən]_{RC}
 3PL:NEUT want PREP man MOD:M 3SG:M:NEUT bring.to 3PL:IO dry.land
 They were looking for someone to take them to dry land

When the object of the preposition is in pre-subject position, the preposition has its ‘intransitive’ form *gó*, as shown below. I have bolded the object in pre-subject position.

- (32) don só **keyjí** **da** u **yá** **gó**
 1SG:IND DET:M fat CONTR 1SG:NEUT want PREP
 What I want is fat

Like the incomplete and irrealis markers, the volitive marker is prefixed to the subject markers.

Person	Subject	Volitive
		yá(g)-
1SG	w	yáw
2SG	g	yág
3SG:M	a	yága
3SG:F	l	yál
1PL:INCL	m	yám
1PL:EXCL	ne	yáne
2PL	we	yágwe
3PL	y	yáy

Table 13.6 Volitive mode subject markers

Segmental evidence for *yá gə* ‘want, need, search, look for’ as the source for this marker can be seen in the 3SG:M and 2PL forms which both contain the voiced velar stop, which

I propose, is a remnant of the preposition which follows this verb. For all other persons, the preposition would have been lost through the process of grammaticalization. The 1PL:EXCL and 2PL forms are often realized [yé̀nè] and [yé̀wè]. That is, like the incompletive markers described above, the vowel of the volitive marker is apparently fronted by the presence of the mid front vowel of the subject marker. In similar fashion, the 3PL form is often realized [yé̀y] (or even reduced to [í]), presumably due to the presence of the following palatal glide.

As noted above, the proposed function of the volitive is to code that the subject wishes/wants the situation of the clause to come about, as shown in the next example.

- (33) **yá-w** sán dó gə dunía
 VOL-1SG know 3SG:F:DO PREP world
I really want to know what it (hunger) is like

Context can convey the idea that the situation of the clause is a prospective event, particularly with a 3SG/PL subject, as shown below.

- (34) ngō ro fārgū dó **yá-l** fóra rə ...
 place MOD:F sickness DET:F VOL-3SG:F surpass 3SG:M:DO
When the sickness was about to overcome him ...

When the volitive is followed by other clauses, the whole of which represents a series of connected events, the following clause is generally coded with neutral aspect. This is a feature that the volitive has in common with both the incompletive and the irrealis.

- (35) **yá-g-a** dō ní **a** ts'a lam ho ...
 VOL-LINK-3SG:M go L.P. NEUT:3SG:M cut river L.P.
He wanted to / was about to go cross through the river ...

The volitive can occur in subordinate clauses, as shown below where it is in an adverbial clause of reason.

- (36) ndá-y dō rə gí **yá-y** la rə
 INCMPL-3PL bring 3SG:M:DO COMP VOL-3PL kill 3SG:M:DO
They were bringing him because they were going to kill him

There are no examples of the volitive mode in relative clauses, negative clauses, or with pluractional verbs in the corpus. Whether these are systematic restrictions needs to be explored.

I have proposed that the function of the volitive marker is to code that the subject wishes/wants the situation of the clause to come about. Context can convey the idea that the situation of the clause in which the volitive marker occurs is a prospective event.

13.5 Prohibitive

The function of the prohibitive is to code a negative imperative. The source of the prohibitive marker /tá-/ is unknown. Like the incompletive, irrealis and volitive, the prohibitive marker is prefixed to the subject markers.

Person	Subject	Prohibitive
		tá-
1SG	w	táw
2SG	g	tág
3SG:M	a	tá
3SG:F	l	tál

Person	Subject	Prohibitive
1PL:INCL	m	tám
1PL:EXCL	ne	táne
2PL	we	táwe
3PL	y	táy

Table 13.7 Prohibitive subject markers

The 1PL:EXCL and 2PL forms are often realized [ténè] and [téwè], respectively. That is, the vowel of the prohibitive marker is apparently fronted by the presence of the mid front vowel of the subject marker. In similar fashion, the 3PL form is often realized [téy] (or simply [tí]), presumably due to the presence of the following palatal glide.

The clause in which the prohibitive marker occurs always ends with the negative marker *wa*.

- (37) **tá-g** de yó **wa**
 PROH-2SG open L.P. NEG
Don't open (it)

The 1SG form is used to report a command given to the speaker. The example below indirectly reports the negative imperative of example (37) directly above from the perspective of the one having received the original command.

- (38) [wa he n-gá-də]_{CS} nde [lə]_{CC}
 thing:CONC:PL what MOD:PL-POSS-3SG:F be.at:PL PRO
What does she have (in) there

- (b) gí **tá-w** de yó **wa**
 COMP PROH-1SG open L.P. NEG
that I'm not allowed to open (it)?

With the 3SG/PL subject markers, the prohibitive can be understood by context to apply generally.

- (39) blō pāl má tá dē ts'e a wo dó wa
 man one FOC PROH:3SG:M go out PREP village DET:F NEG
No one is allowed to leave the village

- (40) don só tá-y do g-u bərbâr ho wa
 1SG:IND DET:M PROH-3PL take.to PREP-1SG dust L.P. NEG
I don't want people to stir up dust around me
(lit. that they not stir dust up around me)

The 3SG/PL forms can also be used to report a command given to a third party.

- (41) ā ha yó go gí tá-y ká rə sāw wa
 3SG:M:CMPL forbid L.P. PREP COMP PROH-3PL hit 3SG:M:IO stick NEG
He₁ forbade (them) to hit him₂ with a stick

I have indicated that the function of the prohibitive is to code a negative imperative. In this next example, the context is such that the clause containing the negative imperative is understood rhetorically. The context of the story is that the woman who is speaking has planted the shoe of a man at the home of the addressee. She knows that when the addressee goes to look for the shoe he'll find it. She literally tells him 'Go to your home and don't find his shoe there'. By context, it is understood that she's not really telling him not to find the shoe but more the idea that surely he will find the shoe. This example brings out the point that context needs to be accounted for in combination with the function of the aspect/mode markers in order to understand the meaning conveyed by the clause as a whole.

- (42) *dā* *hó* *ro-ngó* *dó* *so*
 IMP:2SG:go house MOD:F-POSS:2SG:M DET:F IMP:CONJ
Go to your house and

- (b) *tá-g* *ka* *hálbō* *n-gə-n* *só* *a* *lə* *wa*
 PROH-2SG find shoe MOD:M-POSS-3SG:M DET:M PREP PRO NEG
(see if you) don't find his shoe there

When the negative imperative is followed by another clause, and the negative marker *wa* comes after the second clause, the subject marker of the second clause is not coded with the prohibitive marker but instead has its neutral form. Note in passing that the verb of the first clause has a pluractional prefix.

- (43) *enfé* *yó* *tá-we* *ngə-nga* *he* *we* *jí* *yo* *wa*
 bone:PL DET:PL PROH-2PL PL-break L.P. NEUT:2PL throw L.P. NEG
Don't break apart and throw away the bones

The prohibitive can occur in subordinate clauses. In example (38) above, it occurs with an adverbial clause of reason. In the example below, it occurs in a complement clause within a relative clause.

- (44) *hāl* [*ro* *a* *yá* *gó* *gí*
 act MOD:F NEUT:3SG:M want PREP COMP
What he doesn't want

- (b) *tá-y* *ha* *rə* *wa*_{RC} *dó* *a* *kō* *ho*
 PROH-3PL do:APPL 3SG:M:IO NEG DET:F NEUT:3SG:M tell L.P.
others to do to him, he should say

I have proposed that the function of the prohibitive marker is to code a negative imperative. These can be used for directly and indirectly reported commands, depending upon

the person feature of the subject marker. I have also shown that it can occur in subordinate clauses, and with a verb coded with the pluractional marker. Neither of these environments produces a change in the form or function of the prohibitive marker.

13.6 Neutral

The neutral aspect forms appear to be the realization of the subject markers with no additional morphological marking.

Person	Subject	Neutral
		∅
1SG	w	u
2SG	g	gə
3SG:M	a	a
3SG:F	l	əl
1PL:INCL	m	m
1PL:EXCL	ne	ne
2PL	we	we
3PL	y	i

Table 13.8 Neutral aspect subject markers

The 1SG and 3PL forms are the vocalizations of the underlying glides. The 2SG and 3SG:F forms have epenthetic vowels inserted to fit the phonotactic constraints of the language. I propose that the bare forms of the neutral aspect paradigm are a reflection of their function. That is, the presence of the bare subject markers does not contribute aspect/mode information to the clause as the marked paradigms do. Context would be the primary factor in such cases in determining what aspect/mode is understood. Clauses which contain the neutral forms are pragmatically dependent for both their temporal and aspectual/modal framework. I believe

compelling evidence for this approach comes from the examples presented above where a clause coded with either the incompletive (cf. example (16)), or irrealis (cf. example (26)), or volitive (cf. example (35)), or prohibitive marker (cf. example (43)) is followed by other clauses, the whole of which represents a series of connected events, but the subsequent clauses are in the neutral form. The clauses with the neutral form are understood by context to be in the same aspectual/modal framework as the initial clause. The following example illustrates this with irrealis in the first clause of both lines, and the neutral forms in the second clause of both lines. Context places the situation of the clauses with the neutral forms in the same temporal/aspectual/modal framework as the clauses which precede them. In this instance, the irrealis is understood by context to refer to a future event.

(45) A: **m-ú** dā wō **u** dā lə gó re
 IRR-1SG go summit NEUT:1SG lie.down PRO with 2PL
“I’ll go up and lie down with you.”

(b) B: **mó-g** bó gó **gə** dā wō wa dəge
 IRR-2SG be.able PREP NEUT:2SG go summit NEG INTENS
“You won’t be able to up at all.”

Certain intransitive verbs, expressing property concepts, only occur with the subject markers in neutral form.

Verb	Meaning
<i>bāse</i>	be bad (person, thing)
<i>hāmo</i>	be wrong (in interrogative context)
<i>ká yo</i>	be bad (situation)
<i>lē</i>	be pleasing, well

Verb	Meaning
<i>mbîn</i>	be good
<i>sānī</i>	be like, resemble
<i>wālə</i>	be painful, expensive

Table 13.9 Neutral aspect verbs

The temporal framework of the clauses in which these forms occur is determined by context. In

this next example, the context conveys a situation in the past.

bāse ‘be bad’ (person, thing)

- (46) *kūro* [n ndá-y dō]_{RC} só da a **bāse**
 salt MOD:M INCMPL-3PL bring DET:M CONTR NEUT:3SG:M be.bad
it was the salt that they gave that was bad

In this next example, the context places the situation at the moment of speech.

sani ‘be like, resemble’

- (47) *dó* əl **sānī** la he
 3SG:F:IND NEUT:3SG:F be.like MMR what
What is it (hunger) like?

Not only is the temporal framework determined by context for the neutral forms, but so is the aspectual/modal framework. In this next example, the first clause of the first line is in the incomplete. In keeping with the proposed function of this marker, this indicates that the situation of that clause is incomplete. By context it is understood to be an ongoing action in the past. The second clause of the first line is an adverbial clause of reason. It is in the neutral form, providing the reason why the sun was going. The next two clauses (line (b)) are in the neutral aspect. These are interpreted within the same aspectual/modal framework as the incomplete in the first line – that is, the action of the clauses in line (b) are understood as ongoing as well.

- (48) sá **ndá-l** dā ní gí **əl** bō hé
 sun INCMPL-3SG:F go L.P. COMP NEUT:3SG:F dive L.P.
The sun was going down
(lit. the sun was going that it go down)

- (b) a kadó dó a kadó dó
 NEUT:3SG:M follow 3SG:F:DO NEUT:3SG:M follow 3SG:F:DO
he followed it, he followed it

In this next example, the first clause of the first line is in the completive. In keeping with the proposed function of this marker, this indicates that the situation of that clause is completed. By context it is understood to be situated in the past. The quantifier *lāke* ‘each’ at the end of line (b) adds to the interpretation of the context that there was more than one instance of the situation described in the first line. That is the mother’s coming to give her children milk was a repeated event. Line (b) is an adverbial clause of reason in the neutral form, explaining why the mother came. The clause of line (c) is in the neutral aspect. By my proposal, the aspect/mode of this clause would be determined by the established aspectual/modal framework. This is indeed the case as this clause is understood to express an habitual event – that of the rabbit drinking the mother’s milk each time she came.

- (49) yá dó **n-ō** lū
 mother DET:F 3SG:F-CMPL come
Each time the mother came

- (b) gí **əl** fo dan ēni **lāke**
 COMP NEUT3SG:F give:APPL 3PL:IO milk each
to give them milk

- (c) msəlwo dó əl sē gó dan
 rabbit DET:F NEUT:3SG:F drink with 3PL
the rabbit would drink with them

The neutral form can occur in subordinate clauses. In the last two examples it occurred in adverbial clauses of reason. In the next example it occurs in a relative clause.

- (50) blō [n a mban a ázar]_{RC} só
 man MOD:M NEUT:3SG:M bathe PREP early.evening DET:M
The man who bathes in the early evening

- (b) kaságó kál dó mó-l k'ō gə-n
 cold just DET:F IRR-3SG:F catch PREP-3SG:M
will at the very least catch a cold

The neutral forms can occur in negative contexts as well.

- (51) ngō ro ndwa lə má u sən wa
 place MOD:F be.at:F PRO FOC NEUT:1SG know NEG
Where she is even, I don't know

The neutral forms can occur with pluractional verbs.

- (52) k'ani a n-fé lé n-gə-n yó
 CONJ NEUT:3SG:M PL-call child:PL MOD:PL-POSS-3SG:M DET:PL
Then he called (each of) his children and

- (b) a n-dó dan gēre
 NEUT:3SG:M PL-put 3PL:IO commission
sent them on errands

I have proposed that the clauses which contain the neutral forms are pragmatically dependent for their temporal and aspectual/modal interpretation. I have presented evidence of

this, showing that clauses in the neutral form following clauses with other aspectual/modal codings are interpreted in light of those codings. I have also shown that the neutral forms can occur in subordinate clauses, negative clauses, and with a verb coded with the pluractional marker.

13.7 Summary

The forms of the six aspect/mode paradigms are given again in the following table.

	Subject	CMPL	INCMPL	IRR	VOL	PROH	NEUT
Person		-ō	ndá-	m'-	yá(g)-	tá-	∅
1SG	w	wō	ndáw	mú	yáw	táw	u
2SG	g	gō	ndág	móg	yág	tág	gə
3SG:M	a	ā	nda	má	yága	tá	a
3SG:F	l	nō	ndál	mól	yál	tál	əl
1PL:INCL	m	mō	ndám	ím	yám	tám	m
1PL:EXCL	ne	nē	ndáne	méne	yáne	táne	ne
2PL	we	wē	ndáwe	mówe	yágwe	táwe	we
3PL	y	(y)ē	ndáy	mí	yáy	táy	i

Table 13.10 Summary of forms of aspect/mode/subject markers

The proposed functions of the six aspect/mode paradigms are summarized in the table below.

Aspect/Mode	Function
Completive	completed situation
Incompletive	incomplete situation
Irrealis	potentially unrealized situation
Volitive	wish/want of subject regarding the situation
Prohibitive	negative imperative
Neutral	determined by context

Table 13.11 Summary of functions of aspect/mode markers

14 Verb morphology

Makary Kotoko has a very limited amount of verbal morphology. In this section I present the forms of the different grammatical morphemes that can be added to the verb root, propose functions for each form, and provide evidence in support of the proposed functions. The morphemes in question are: (i) the applicative suffix /-a/, (ii) the causative suffix /-l/, and (iii) the pluractional prefix /n'-/. The first is unproductive, applying to about a dozen verbs in the corpus. I analyze the suffix /-a/ as a type of applicative, but also consider a different proposal, suggested in Frajzyngier 2005, and Frajzyngier & Munkaila 2004 for other Chadic languages that /-a/ would be a 'goal' marker. The second grammatical morpheme, /-l/, generally applies to intransitive verbs and locative complement taking verbs, creating transitive counterparts.¹ The third morpheme, the pluractional marker /n'-/, is widely productive. It codes the plurality of action expressed by the verb.

14.1 Applicative suffix /-a/

The suffix /-a/ (generally with L tone) replaces the vowel of the verb root. This first table gives a list of ambitransitive verbs which can take the applicative marker.

Root	Meaning	Applicative	Meaning
fī	<i>give (sth)</i>	fo	<i>give (sth) to s.o.</i>
fyū	<i>smoke (food)</i>	fya	<i>smoke (food) for s.o.</i>
hōn	<i>do, make (sth)</i>	ha	<i>do, make (sth) swh/for s.o.</i>
sē	<i>prepare (food)</i>	sa	<i>prepare (food) for s.o.</i>
wē	<i>give birth to (s.o.)</i>	wa	<i>give birth to (s.o.) swh/for s.o.</i>

Table 14.1 Ambitransitive verbs that take the applicative suffix /-a/

¹ See chapter 17 regarding verb argument structure.

The following table gives the list of the intransitive verbs in the corpus which can take the applicative marker.

Root	Meaning	Applicative	Meaning
bī	<i>have a hole (i.e., be pierced)</i>	bo	<i>pierce</i>
fāḑe	<i>shine</i>	fāḑa (ho)	<i>light (fire)</i>
fī:	<i>give off an odour</i>	fīo	<i>give off an odour toward s.o.</i>
gē	<i>be finished</i>	ga (yó)	<i>finish</i>
k'we	<i>be dry</i>	gwó ²	<i>dry</i>
ngé ³	<i>be broken</i>	ngá (hé)	<i>break</i>
ts'ē	<i>be torn</i>	ts'a (yó)	<i>tear</i>
swē	<i>cry</i>	swa (gə)	<i>cry at s.o.</i>

Table 14.2 Intransitive verbs that take the applicative suffix /-a/

Note the [-o] realization of the applicative for the verbs whose root vowel is /i/. I propose that the function of the applicative morpheme /-a/ is to increase the argument structure of the verbs in question, allowing for one more argument than the root form of the verb allows. That is, for transitive verbs, this would mean the expression of the indirect object, the location, or a prepositional object. For intransitive verbs, this would typically mean the expression of the direct object (though it is possible for the indirect object to be expressed depending on the meaning of the verb). I provide evidence for this proposed function and then consider an alternate analysis suggested in Frajzyngier 2005, and Frajzyngier & Munkaila 2004 for a similar morpheme in other Chadic languages. I must first address my use of the term 'applicative'. A typical definition of an applicative is 'when an oblique argument is promoted to an object' (Matthews 1997:22). If a transitive verb is marked with an applicative marker, the original

² Note the idiosyncratic change in the root in this particular case. Also note the idiosyncratic tonal behavior between the pairs.

³ Note the exceptional H tone for both forms of verb in this case.

object may be maintained (creating a double object construction), or demoted, or omitted. If an intransitive verb is marked with the applicative, the verb becomes transitive.

My use of the term applicative is slightly different. With respect to transitive verbs, the expression of the indirect object or the location produces no change to the expression of the direct object. The direct object is not demoted (though it may be unexpressed), and the indirect object, location, or prepositional object is not realized as a direct object. The indirect object is realized in its canonical position (following the verb and preceding the direct object (when present)) and the location is realized in its canonical position following the direct object (if present) (unless the location is expressed pronominally and the direct object is expressed nominally, in which case the expression of location precedes the direct object, as described in section 19.3). When the indirect object is realized pronominally, its tonal realization distinguishes it from the direct object as well. My use of the term ‘applicative’ is comparable to Newman’s (2000:634-636) who describes a similar suffix /-a/ with a similar function in Hausa. With respect to intransitive verbs, it is possible to distinguish causative constructions (where the S of the intransitive becomes the O of the corresponding transitive) from applicatives (where the S of the intransitive becomes the A of the corresponding transitive) (cf. Dixon 2010:165-171). I maintain the term ‘applicative’ for all the verbs regardless of their transitivity since the same form /-a/ is used for all, and the same function – increasing the argument structure of the verb – applies to all.

For each of the verbs above, it is not possible to express an additional argument without the applicative suffix being applied to the verb. Consider the following example which contains two instances of the verb *fī* ‘give’. The derived form of the verb occurs in the first line followed by the indirect object and the direct object. The root form of the verb occurs in line (b) within a relative clause, the head of which is the direct object of the verb. I have square bracketed and subscripted the direct and indirect objects.

(1) *Jetíma* *Guskro* *ā* **fo** [ne]_{IO} [wási]_{DO}
shetima *Guskro* 3SG:M:CMPL give:APPL 1PL:EXCL:IO advice
*Shetima*⁴ *Guskro* gave us some advice

(b) [wási]_{DO} [n *ā* **fī**]_{RC} *só* ...
 advice MOD:M 3SG:M:CMPL give DET:M
The advice that he gave ...

For the first instance of the verb above, the root form of the verb is not grammatical when the additional argument is present.

(2) * *ā* **fī** [ne]_{IO} [wási]_{DO}
 3SG:M:CMPL give 1PL:EXCL:IO advice
He gave us some advice

Likewise, the derived form of the verb is not possible without the additional argument.

(3) * *ā* **fo** [wási]_{DO}
 3SG:M:CMPL give:APPL advice
He gave some advice

⁴ *Shetíma* is a title given to an Islamic erudite.

That is, the verb cannot be in the derived form without the expression of the additional argument, and the additional argument cannot appear without the use of the derived form of the verb.

The nominal/pronominal realization of the additional argument has no bearing on this requirement. This next example has a nominal realization of the indirect object.

- (4) *ā* **fo** [ló n-gə-n]_{IO} [wási]_{DO}
 3SG:F-CMPL give:APPL child MOD:M-POSS-3SG:M advice
He gave his son some advice

The direct object need not be expressed, yet the verb will have the derived form when an additional argument is expressed.

- (5) *k'ani* *ā* *dō* *ní* *ā* **fo** [ló dó]_{IO}
 CONJ 3SG:F-CMPL go L.P. 3SG:F-CMPL give:APPL child DET:F
Then he went and gave (it) to the girl

The additional argument can be a location. In this next example, the verb *wē* 'give birth to' is in its derived form. There is a noun phrase in pre-subject position (which is modified by a relative clause). That noun phrase refers to a location. There is a resumptive pronoun (*lə*) following the verb. Since the expression of location is realized pronominally after the verb and the direct object is realized nominally, the expression of location precedes the direct object.

- (6) *karágā* [ro nda *dō* *ní* a *sēm* wa
 woods MOD:F INCMPL:3SG:M go L.P. NEUT:3SG:M eat thing:CONC:PL
The woods where he went to eat

- (b) a *lə*_{RC} *dó* *msəlwo* *n-ō* **wa** [*lə*]_{LOC} [*lé*]_{DO}
 PREP PRO DET:F rabbit 3SG:F-CMPL give.birth.to:APPL PRO child:PL
at it, a rabbit had given birth to (her) children there

As is noted in section 19.3, the expression of location within the verb phrase precedes the direct object only when the location is expressed pronominally and the direct object is expressed nominally, as in the above example. Otherwise, the direct object precedes the expression of location. The following elicited sentence, based on the one above, illustrates the use of the derived form of the verb when both a nominal direct object and nominal reference to location follow. Note in this instance that the direct object directly follows the verb, yet the verb takes the derived form because of the presence of the additional argument (in this case, the location).

- (7) msəlwo n-ō **wa** [lé]_{DO} [karágā]_{LOC}
 rabbit 3SG:F-CMPL give.birth.to:APPL child:PL woods
A rabbit gave birth to her children in the woods

The additional argument can also be a prepositional object. In this next example, both the direct object and the object of the preposition are understood by context, occurring in the preceding clauses. The ambitransitive preposition *gə* has its intransitive form *gó*, and the verb has the derived form because there is an additional (prepositional) argument.

- (8) ē dāgə mfo dó fogó ē kə
 3PL:CMPL thresh millet DET:F all 3PL:CMPL crush
They threshed all the millet and ground (it)
- (b) k'ani ā la hóngwó ē **sa** gó
 CONJ 3SG:M:CMPL kill goat 3PL:CMPL prepare:APPL PREP
Then he killed a goat and they prepared (the millet) with (it)

The following elicited example based on the example directly above places the direct object and the object of the preposition in their canonical positions after the verb. Note that the direct object directly

follows the verb, yet the verb takes the derived form because of the presence of the additional (prepositional) argument.

- (9) \bar{e} **sa** [mfo]_{DO} gə hóngwó
 3PL:CMPL prepare:APPL millet PREP goat
They prepared the millet with a goat

I have provided evidence for the function of the applicative marker from the verbs in table 14.1 above. The presence of the applicative increased the argument structure of the verbs and allowed for the expression of one more argument than the root form of the verb allowed. The same marker is used with the intransitive verbs in table 14.2 to add an additional argument to the argument structure of those verbs as well. The next pair of examples comes from the same text. The root form of the verb is used in the first example, the derived form in the second. The S of the intransitive in example (10) is semantically an undergoer. As such, when the derived form of the verb is used in example (11), the original S of the intransitive becomes the O of the corresponding transitive. Because of that, this could be considered a causative (cf. Dixon 2010:165-171). I refer to it as an instance of the applicative since the same grammatical morpheme is used.

- (10) nondó dó lé yó \bar{e} **gē**
 in.this.way CONJ child:PL DET:PL 3PL:CMPL be.finished
In this way the children were finished off

Note that in the example with the derived form below the subject of the example above (the reference to the children) is now the direct object (and occurs in pre-subject position in this instance).

- (11) [lé n-g-u]_{DO} dè w-ō **ga** yó ták
 child:PL MOD:PL-POSS-1SG S.R. 1SG-CMPL be.finished:APPL L.P. IDEO
I finished off my children completely

- (b) gó gārəm ro-g-u fogó
 with woman MOD:F-POSS-1SG all
along with my wife

Consider as well the next example with the root verb *fī*: ‘smell, give off an odour’.

- (12) kón [n gə **fī**]_{RC} nda só ...
 2SG:M:IND MOD:M NEUT:2SG smell DEM:M DET:M
You who smell (bad)

In the derived form below, the additional argument is an indirect object (as can be determined by the tone).

- (13) kíé yó gó jú só ndá-y **fio** rə
 fish:PL DET:PL with meat DET:M INCMPL-3PL smell:APPL 3SG:M:IO
(The smell of) fish and meat wafted toward him

Having presented my proposed analysis for the marker /-a/, I now turn to an analysis proposed in Frajzyngier (2005) and Frajzyngier & Munkaila (2004) for a similar marker in some other Chadic languages. Looking at similar data primarily in Hausa, but also in Pero, Hdi, Gidar, and Mina, these authors propose that the corresponding markers in those languages give evidence for the grammatical category ‘goal’. “The goal marker is used to indicate that the proposition has a goal, but the goal itself either is not overtly coded in the clause or occurs in a position where its syntactic function is not marked” (Frajzyngier & Munkaila 2004:43). From this statement, it’s unclear to me how to determine which argument is the goal. However, one testable claim the authors make is that “the fundamental

prerequisite of the goal marker is that even if the goal occurs in a clause, it does not directly follow the verb” (ibid). I believe that examples (6) and (7) (the relevant portions of which are repeated below as (14) and (15)) provide evidence against the suffix /-a/ functioning as a goal marker in Makary Kotoko. In (14), the location directly follows the verb and the verb has its derived form. In (15), the direct object directly follows the verb and the verb still has its derived form. If either of those two arguments were the goal then in one or the other of the examples, the verb should not have its derived form. If the claim was made that some other (unmentioned and unknown) argument were the goal, then this renders the approach untestable since there appears to be no objective way to evaluate what the goal is. If the claim is then made that the goal does not need to be known, then one would wonder what the value is in having a marker which indicates that a proposition has a goal but that what the goal actually was could not be determined.

(14) msəlwo n-ō **wa** [lə]_{LOC} [lé]_{DO}
 rabbit 3SG:F-CMPL give.birth.to:APPL PRO child:PL
rabbit had given birth to (her) children there

(15) msəlwo n-ō **wa** [lé]_{DO} [karágā]_{LOC}
 rabbit 3SG:F-CMPL give.birth.to:APPL child:PL woods
A rabbit gave birth to her children in the woods

An additional argument against the suffix /-a/ being a goal marker in Makary Kotoko comes from the following statement that Frajzyngier (2005) makes when arguing against the applicative analysis for the similar marker in Hausa: “rien dans la structure du verbe ne pourrait empêcher l’ajout ou la suppression d’un argument” (nothing in the structure of the verb would prevent the addition or

deletion of an argument) (Frajzyngier 2005:217). I demonstrated above with the ungrammatical sentences in examples (2) and (3) that for Makary Kotoko this statement is not valid. For this group of verbs, for an additional argument to be expressed, the derived form of the verb is required. Conversely, the derived form of the verb cannot be used without the expression of an additional argument. The fact that the verb must undergo a formal change in order for an additional argument to be expressed gives evidence that verbs have an argument structure.

Frajzyngier & Munkaila (2004) propose that the “category ‘applicative’ [in Hausa] shares the semantic properties of the category ‘goal’ ... and is fully subsumed in the category ‘goal’”(2004:41). As such, it is possible that this is also true for the marker /-a/ in Makary Kotoko, but in a way that is still unclear to me.⁵

14.2 Causative suffix /-l/

A somewhat larger group of verbs can take a /-l/ suffix (with (generally) no tonal change to the verb root). This morpheme applies to intransitive verbs and locative complement taking verbs. The following table provides a list of intransitive verbs in the language which can take the causative suffix.

Root	Meaning	Derivation	Meaning
dē	<i>be softened (by soaking in water)</i>	dēl	<i>soften (by soaking in water)</i>
k'wāŋī	<i>be full</i>	k'wāŋīl	<i>fill</i>
k'we	<i>be dry</i>	k'wel	<i>dry</i>
swē	<i>be played (instrument)</i>	swél ⁶	<i>play (instrument)</i>

⁵ Frajzyngier (1985) describes a morpheme in some Chadic languages which has some similarities to the function I propose for the /-a/ suffix in Makary Kotoko. The morpheme in question, however, is more similar in form to the causative suffix /-l/ described in section 14.2.

⁶ Note that there are idiosyncratic tonal changes for a few of the derived forms.

Root	Meaning	Derivation	Meaning
wi	<i>be lost</i>	wil	<i>lose, get rid of</i>

Table 14.3 Intransitive verbs that take the causative suffix /-l/

The following table provides a list of locative complement taking verbs in the language which can take the causative suffix.

Root	Meaning	Derivation	Meaning
dō (he)	<i>be immersed</i>	dōl (he)	<i>immerse</i>
ʃē (he)	<i>melt (intr.)</i>	ʃēl (he)	<i>melt (tr.)</i>
bō (ho)	<i>germinate, be discovered</i>	bōl (ho)	<i>discover</i>
bō (he)	<i>dive, set (of sun)</i>	bōl (he)	<i>immerse, sink</i>
dā (he)	<i>lie down</i>	dāl (he)	<i>lay sth down</i>
sō (he)	<i>arrive</i>	sōl (he)	<i>welcome</i>
tə (he)	<i>return</i>	təl (he)	<i>send s.o. back</i>

Table 14.4 Locative complement taking verbs that take the causative suffix /-l/

The two examples that follow contrast the use/non-use of the causative suffix with the locative complement taking verb *bō ho* ‘be discovered’. The first example contains the root form of the verb in both clauses.

(16) **A:** yayá nəmân dó n-ō **bō** ho
 older.sibling money DET:F 3SG:F-CMPL be.discovered L.P.
“Brother, the money has been discovered”

(b) **B:** nəmân dó n-ō **bō** ho la he
 money DET:F 3SG:F-CMPL be.discovered L.P. MMR what
“How has the money been discovered?”

This next example comes from the same story. In this case the causative suffix is applied to the verb root. What was the subject of the example above (*nəmân* ‘money’) is now the object of the derived verb form.

- (17) aro mǎ-l **bō-l** nəmân ro-ngó dó ho
 CONJ IRR-3SG:F be.discovered-CAUS money MOD:F-POSS:2SG:M DET:F L.P.
Then she'll find your money

Makary Kotoko makes regular use of placing noun phrases in pre-subject position for pragmatic reasons (as described in chapter 26). When the object of the derived verb form is in pre-subject position, a pronominal element obligatorily occurs in the canonical object position. This is seen in line (b) of the next example, also drawn from the same text. I have bolded the pronominal element in the canonical direct object position and the corresponding noun phrase in pre-subject position (which is modified by a relative clause).

- (18) **nəmân** ro-gə-n [ro n-ō wi]_{RC} dó
 money MOD:F-POSS-3SG:M MOD:F 3SG:F-CMPL be.lost DET:F
His money that is lost, you're the one

- (b) tó da mǎ-g **bō-l** do ho
 2SG:F:IND CONTR IRR-2SG be.discovered-CAUS PRO L.P.
that will find it

The next two examples contrast the use/non-use of the causative suffix with the intransitive verb *wi* ‘be lost’. The first example has the root form of the verb.

- (19) já n-gə abá n-gó-ne ā wi
 cow MOD:M-POSS father MOD:M-POSS-1PL:EXCL 3SG:M:CMPL be.lost
My father's cow was lost

This second example has the derived form of the verb (cf. line (b)). The object of the derived verb is given in the first line of the example (*álgə* ‘person’). Since it is unexpressed in the clause, the pronoun *do* occurs in the object position.

(20) we fo n álgə só
 NEUT:2PL give:APPL 1SG:IO person DET:M
 Give me the corpse

(b) gí don m-ú **wi-l** **do**
 COMP 1SG:IND IRR-1SG be.lost-CAUS PRO
 so I get rid of it

There are two other verbs which can take the causative suffix: *dəwo* ‘buy’ and *həne* (which appears to be a variant form of the verb *hən* ‘do’). These two are set apart from the other verbs for two reasons. First, they are ambitransitive. What I mean by ambitransitive is that they have an agentive subject and may or may not have an expressed object (i.e., S=A ambitransitive). Applying the causative suffix to these verbs produces a change in the meaning of the verbs such that *dəwo* ‘buy’ with the causative suffix means ‘sell’, and *həne* with the causative suffix expresses something like ‘cause to do’. Second, when the nominal object of the derived verb form is not expressed after the verb, the pronoun *do* occurs as expected in the canonical direct object position, but the /-l/ suffix no longer appears on the verb. Why this is so is not clear, unless this is a way of marking that their root forms are from a different verb class than those given in the two tables above.

In this next example, the verb *dáwo* ‘buy’ is marked with the causative suffix and the direct object follows (enclosed in square brackets and subscripted).

- (21) m-ú há gə-n fú ho gí a **dáwo-l** [há dó]_{DO}
 IRR-1SG put PREP-3SG:M fire L.P. COMP NEUT:3SG:M buy-CAUS house DET:F
I'll hassle him so that he sells the house

This next example is from the same text as the example above. The verb is followed by the pronoun *do* referring to an unexpressed antecedent (the house mentioned in the example above). Note in this case the absence of the causative suffix on the verb. The verb formally looks like the root form, but due to the presence of the pronoun *do* (along with the contribution that context makes) the meaning ‘sell’ as opposed to ‘buy’ is understood. Note in passing that there is an instance of the root verb form in line (b).

- (22) sá ro yá-g-a **dáwo** **do**
 day MOD:F VOL-LINK-3SG:M buy PRO
When he goes to sell (it)

- (b) aro gə sī msále yahe álu **dáwo**
 CONJ NEUT:2SG take debt even IMP:2SG:come IMP:2SG:buy
then, even if you have to take out a loan, come buy (it)

The next example contains two instances of *həne*. The first (in the first line) has the causative marker and a following nominal argument. The second (in line (c)) is followed by the pronoun *do*. The antecedent of this pronoun is the bolded argument in line (b). Note again the absence of the causative marker when the pronoun *do* occurs.

(23) ārfu só a **həne-l** ʃimé n-gə-n yó
 elephant DET:M NEUT:3SG:M do-CAUS ear:PL MOD:PL-POSS-3SG:M DET:PL
The elephant shook his ears

(b) k'ani dǎ dɛ **en-gó-də** n ʃáme yó
 CONJ 3SG:F:IND S.R. 3PL-POSS-3SG:F MOD:PL small:PL DET:PL
Then, she, her small ones as well

(c) əl **həne do**
 NEUT:3SG:F do PRO
she shook them

In the lexicon, there is the verb form *fədɛl* ‘herd’ which may be an instance of the causative suffix /-l/ occurring on the noun *fɛdɛ* ‘pasture’. In this case, the suffix would function as a verbalizer.

14.3 Pluractional prefix /n’-/

The pluractional prefix /n’-/ is very productive, applying to most verbs in the language. I propose that the function of the pluractional prefix is to code plurality of the action expressed by the verb. The primary way of deriving the pluractional form of verbs involves two aspects: (i) the addition of a nasal prefix to the verb root, and (ii) replacing the tone of the verb root with H tone. The nasal assimilates to the place of articulation of a following bilabial, alveolar or velar stop, as shown below.⁷

Root	Gloss	Pluractional	Gloss
bo	<i>pierce</i>	mbó	<i>pierce repeatedly</i>
dǎ	<i>put, place</i>	ndǎ	<i>put repeatedly</i>
kē	<i>ask</i>	nké [ŋké]	<i>ask repeatedly</i>

Table 14.5a Pluractional verbs

⁷ Cf. Mahamat (2005:122-126) for a formal representation of the assimilatory processes that the pluractional prefix undergoes.

Preceding a fricative, the pluractional prefix is realized with a velar place of articulation [ŋ]. If the preceding subject marker ends with a vowel, the pluractional prefix functions as the coda of the preceding syllable, as shown in the second line of interlinearization of the next example

- (24) **a** **n-fé** lé n-gə-n yó
 [àŋ.fé]
 NEUT:3SG:M PL-call child:PL MOD:PL-POSS-3SG:M DET:PL
He called (each of) his children

If the preceding subject marker ends in a consonant, the pluractional prefix functions as a syllabic nasal, as shown below.

- (25) **ndá-l** **n-fé** lé n-gə-də yó
 [ndál.ŋ.fé]
 IMPRF:3SG:F PL-call child:PL MOD:PL-POSS-3SG:F DET:PL
She was calling (each of) her children

Other verbs that behave in this way include those in the following table.

Root	Gloss	Pluractional	Gloss
fī	<i>give</i>	nǎí	<i>give repeatedly</i>
sī	<i>take</i>	nsí	<i>take repeatedly</i>

Table 14.5b Pluractional verbs

When the prefix attaches to the vowel initial verb *i* ‘snatch’, the prefix functions as the onset of the verb: *ní* ‘snatch repeatedly’. With the frequent verb *la* ‘hit’, the pluractional prefix replaces the initial (sonorant) consonant of the root: *ná* ‘hit repeatedly’. For a small group of CV verbs with a fricative in the C slot and /ə/ in the V slot, the pluractional prefix has the form *ngá-/nká-*. For the first example below note that /h/ is realized [d] following the pluractional prefix. For the third verb listed below, note

that in section 2.4.1, it was mentioned that there is a neutralization of /i/ and /ə/ word finally after palatal consonants, which explains the presence of the high front vowel before the palatal fricative, and why I treat this as comparable to the first two.⁸

	Root	Gloss	Pluractional	Gloss
(1)	hɛ́	<i>put</i>	ngáɗə / nkáɗə	<i>put repeatedly</i>
(2)	fɛ́	<i>change</i>	nkáfə	<i>change repeatedly</i>
(3)	ʃí	<i>pour</i>	nkáʃi	<i>pour repeatedly</i>

Table 14.6 Irregular pluractional verbs

A few verbs have pluractional forms which show evidence of a process of partial reduplication (which is no longer productive) where the pluractional prefix and the onset of the verb root is reduplicated and placed as a prefix to the derived form of the verb, giving the form: nCə-nCV. The second example below seems to show assimilation of the high mid vowel of the prefix to a high front vowel in the verb root.

Root	Gloss	Pluractional	Gloss
ngá (he)	<i>break</i>	ngóngá (he)	<i>break in pieces</i>
tī	<i>swell (intr)</i>	ntínti	<i>swell repeatedly</i>
ts'ē	<i>be torn</i>	nts'ónts'e	<i>be torn up</i>

Table 14.7 Reduplicated pluractional verbs

I have proposed above that the function of the pluractional prefix is to code the plurality of the action expressed by the verb. Evidence for this comes from comparing the use and non-use of the pluractional prefix on the same verb, as shown in the following pair of examples with the verb *ngá (he)* 'break'. Both examples have a singular subject and an understood singular object which make them

⁸ Cf. Mahamat 2005:77-81 for a similar analysis though he doesn't address instances of the pluractional marker like those in Table 14.6.

quite comparable. If there is a change in meaning between the two clauses, it is reasonable to attribute the change in meaning to the presence/absence of the pluractional prefix. In the first example, the understood object is a special power that a ring possesses. One thing is described as being able to break that special power. The root form of the verb is used in this example. There is no specification on how the breaking is carried out with the root form of the verb.

- (26) *dámá* [nyi pá] _{CS} *ndwa* [lə] _{CC} əl **ngá** he
 ADVERS thing:ABSTR one be.at:F PRO NEUT:3SG:F break:APPL L.P.
But there is one thing that will break (the power of the ring)

In the second example, the object is in pre-subject position (*dǝgwe* ‘clay jar’). The pluractional form of the same verb is used, indicating that the action occurs repeatedly. As such, the jar is not just broken, but broken up into pieces.

- (27) *gáko* *dó* *dǝgwe* *só* *ā* **ngǝ-nga** he
 front DET:F clay.jar DET:M 3SG:M:CMPL PL-break:APPL L.P.
Then he broke the jar to pieces

The same effect of the pluractional marker can be seen with a plural object as well. The next pair of examples has the same verb *fě* ‘call’. As well, both have a singular subject and a plural object (in canonical direct object position in both cases). In this first example the referent of the subject marker is calling the referents of the 3PL direct object pronoun. Again, there is no specification on how the calling occurs when the root form of the verb is used.

- (28) *n-ō* **fě** *dán* *ē* *lū* *gǝ-də* ho
 3SG:F-CMPL call 3PL:DO 3PL:CMPL come PREP-3SG:F L.P.
She called them and they came to her

In the second example, the referent of the subject marker is calling his children. The pluractional form of the same verb is used, indicating that the action occurs repeatedly. With a plural referent for the direct object this is generally understood to mean that he didn't call all his children at once, but each one, one at a time. That is, the action occurs distributively on the referents of the plural object. This is further reinforced by the reduplicated use of the numeral *pál* 'one' at the end of the second line of the example in connection with another instance of the pluractional form of a verb.

- (29) a **n-fé** lé n-gə-n yó
 NEUT:3SG:M PL-call child:PL MOD:PL-POSS-3SG:M DET:PL
He called his children

- (b) a **n-dó** dan gēre páł páł
 NEUT:3SG:M PL-put 3PL:IO commission one one
and gave them each a task (to do)

The use of the pluractional form of a verb does not preclude a plural subject, as shown in the next two examples. In the first, the object is singular. In the second, it is plural.

- (30) i **n-dǎ** gwá
 NEUT:3PL PL-draw cry
They cried out repeatedly

- (31) walámē yó ē **n-ké** he gó dódō dón dón
 hole:PL DET:PL 3PL:CMPL PL-close L.P. with thorn IDEO IDEO
They completely filled the holes with thorns

The examples in this section not only provide evidence for the proposed function of the pluractional prefix – to code the plurality of the action of the verb – but they also demonstrate that for

Makary Kotoko the plurality of the verb is independent of the plurality of either the subject or the object of the verb.

I demonstrated in chapter 13, which addresses aspect/mode coding, that the pluractional verb forms can occur with subject markers coded for different aspect/mode markings. The pluractional marker can also occur on a derived form of the verb. In this next example it occurs on the applicative form of the verb *fī* ‘give’.

- (32) k^lani ā **n-fó** gāram n-gə-n yó fú
 CONJ 3SG:M:CMPL PL-give:APPL woman:PL MOD:PL-POSS-3SG:M DET:PL meat
Then he gave his wives meat

14.4 Summary

In this chapter I have presented the limited verb morphology of Makary Kotoko. There were three morphemes presented. First was the applicative suffix /-a/ whose function is to increase the argument structure of the verb, allowing for the expression of an additional argument. For transitive verbs, the additional argument can be the indirect object, the expression of location, or a prepositional argument. For intransitive verbs, the additional argument is generally the direct object though may be the indirect object depending upon the meaning of the verb. Second was the causative suffix /-l/ which generally applies to intransitive verbs and locative complement taking verbs, though I showed that it can also apply to two ambitransitive verbs, producing a change in the meaning of the verbs. Both the applicative and causative suffix provide evidence for the fact that verbs have argument structure and that modification of that argument structure is carried out by making a morphological change to the

form of the verb root. The third morpheme was the pluractional prefix /n'-/ which codes the plurality of the action expressed by the verb.

15 Non-human/locative pronoun *lə*

Mahamat (2005) includes the description of the pronoun *lə* with his discussion of the locative particles (verb particles in his terminology). For him, *lə* is “un pronom complément de lieu. Son association au verbe est indispensable si le sens de ce dernier est vague et difficile à cerner” (a locative pronoun. Its association with the verb is indispensable if the meaning the verb is vague and difficult to establish) (2005:105). My analysis of *lə*, given below, includes its use to refer to non-human referents as well as locations. Unlike the locative particles which do contribute to the meaning of the action expressed by the verb in the context in which they are used, the pronoun *lə* provides no contribution to the meaning of the action expressed by the verb. It (generally) refers to an understood or previously mentioned entity of the discourse.

The function of the pronoun *lə* (PRO) is generally anaphoric.¹ It points back to an antecedent within the text which generally has a non-human referent or refers to a location. Unlike the personal pronouns, the pronoun *lə* does not code for the gender or number of its antecedent, as shown in the next three examples. The antecedent of *lə* in the next example is *ʒi* (thing:CONC), occurring in pre-subject position. It is of feminine gender as can be seen by the form of the modifying marker (*ro* (MOD:F)) preceding the possessive determiner, and by the form of the definite determiner. I have bolded the antecedent and the pronoun *lə* in each of the following examples.

¹ Regarding the tonal realization of the pronoun *lə*, Tourneux (2009b) claims that ‘ce pronom copie le ton de la syllabe qui le précède’ (2009b:226). In my data, it is realized L after M and L, and M after H. I leave it unmarked in all cases.

Antecedent of *lə* has feminine gender

- (1) a-sə-ró **ɔ̃ʒi** **ro-gə-n** **dó** m-á ka **lə** wa
 PREP-day-DEM:F thing:CONC MOD:F-POSS-3SG:M DET:F IRR-3SG:M find PRO NEG
Today, his thing, he won't find it

In the next example, the antecedent of *lə* is *dúgúlū* ‘thigh’, occurring in pre-subject position. It is of masculine gender as can be seen by the form of the modifying marker (*n* (MOD:M)) preceding the possessive determiner, and by the form of the definite determiner.

Antecedent of *lə* has masculine gender

- (2) **dúgúlū** **n-gə-n** **só** ā ká **lə** ʃé
 thigh MOD:M-POSS-3SG:M DET:M 3SG:M:CMPL slap PRO hand
his thigh, he slapped it (with his) hand

In the two previous examples the antecedent of *lə* was singular in number. In the following example, the antecedent is plural, taking the plural suffix /-e/ and being modified by the plural form of the nominal demonstrative.

Antecedent of *lə* is plural

- (3) **bəskór-e** **n** **gāde** **nde** **yó** g-ō ka **lə** aro ...
 horse-PL MOD:PL four DEM:PL DET:PL 2SG-CMPL find PRO CONJ
Those four horses, if you find them...

The antecedent of the pronoun *lə* can also refer to a location, as in the next example. The antecedent is the head of a relative clause, and the pronoun *lə* occurs within the relative clause as the complement of the locative complement taking verb *də* ‘go’.

Antecedent of *lə* is a location

- (4) **ngō** [ro ndá-l dē **lə**]_{RC} aro əl dē ní gó də
 place MOD:F INCMPL-3SG:F go PRO CONJ NEUT:3SG:F go L.P. with 3SG:F
where(ever) she_i went, she_k would go with her_i

In the next example, the antecedent to the pronoun *lə* is the locative particle *ní* occurring in the previous clause. As described in section 16.1.1, this particle is only used with four verbs of motion, each of which takes a locative complement as part of its argument structure. If there is no expressed location in the clause, then *ní* is used in order to fulfill the requirement of an expression of location. The pronoun *lə* refers to the unspecified location indicated by the locative particle *ní*.

- (5) g-ō dē **ní** aro ɕí **lə** tá-g lū wa
 2SG-CMPL go L.P. CONJ IMP:2SG:remain PRO PROH-2SG come NEG
When you leave, remain there. Don't come (back)

In the preceding examples, the pronoun *lə* was an argument of the verb of the clause. It can also be the object of a preposition, as in the next two examples. In the following example, the pronoun *lə* is the object of the comitative preposition *gó* 'with'. Its antecedent (bolded) is in the preceding clause.

- (6) ā kó gó-də **sé** ts'e ā dē ní gó **lə**
 3SG:M:CMPL pluck PREP-3SG:F eye outside 3SG:M:CMPL go L.P. with PRO
He plucked out her eye and went away with it

In the next example, the pronoun *lə* is the object of the locative preposition *a* (PREP). Its antecedent (bolded) is in the preceding clause.

- (7) ā dē **kasúgu** sə **Marte** só
 3SG:M:CMPL go market NMOD:M Marte DET:M
He went to the Marte market

- (b) *ā* *sā* *tón* *a* *lə*
 3SG:M:CMPL sit ground PREP PRO
and sat down there

The pronoun *lə* also occurs in non-verbal predication. In particular, it can be the complement in the locative copula construction. One function of this construction is to position the referent of the copula subject in the location given by the copula complement. In the following example, the antecedent (bolded) of *lə* is the noun phrase in pre-subject position which is marked by the contrastive focus marker *da*.

- (8) ***hó*** ***ro-gé-mo*** [***ro*** ***m*** ***sēm*** ***wa***
 house MOD:F-POSS-1PL:INCL MOD:F NEUT:1PL:INCL eat thing:CONC:PL
Our home where we eat things

- (b) ***a*** ***lə***_{RC} *da* [***blō***]_{CS} *nda* [***lə***]_{CC} *gí* ...
 PREP PRO CONTR man be.at:M PRO COMP
at it, someone is there ...

As described in section 21.4, the locative copula construction can also be used to express the existence of the referent of the copula subject. In such cases, the pronoun *lə* occurs in the copula complement position but is non-referential. That is, it has no antecedent and as such does not refer to a location as such.

- (9) [*séló* [*n* *a* *féra* *tó*]_{RC}]_{CS} *nda* [***lə***]_{CC} *wo*
 bird MOD:M NEUT:3SG:M surpass 2SG:F:DO be.at:M PRO POL
Does a bird that surpasses you exist?

A similar situation occurs with the transitive verb *ɕigala* ‘surpass’. As a transitive verb, it requires the expression of a direct object in the canonical direct object position. In the first example the antecedent (bolded) of the pronoun *lə* is given in the first line. It is the copula subject of the locative copula construction.

- (10) [**mdal** **n** **si**]_{CS} nda [lə]_{CC}
 waterhole MOD:M NONSPEC:M be.at.M PRO
A waterhole was there,

- (b) i yá gó gí i ɕigala **lə**
 NEUT:3PL want PREP COMP NEUT:3PL surpass PRO
they wanted to go around it

The transitive verb *ɕigala* ‘surpass’ is also used in an idiomatic expression meaning something like ‘be too much’. In such cases, the pronoun *lə* occurs as the required object of this transitive verbs, yet it is non-referential. That is, it has no antecedent and as such does not refer to anything.

- (11) nyi [ro n-ō gá si gó-dan ho]_{RC} dó
 thing MOD:F 3SG:F-CMPL put REFL PREP-3PL L.P. DET:F
What happened to them

- (b) n-o ɕigala **lə**
 3SG:F-CMPL surpass PRO
goes way beyond (anything)

I have stated that the pronoun *lə* refers to non-humans and locations. There are a few instances in the corpus where the antecedent of *lə* refers to a human. However, in each case the context indicates that the person is treated as a non-human, as in the following example. The context of the example is

that a father has an incorrigible son. He tells the sultan to take his son and go home with ‘it’ (to serve as a slave).

- (12) *sī* **ló** **só** to gó **lə**
 IMP:2SG:take child DET:M IMP:2SG:return.home with PRO
Take the child and go home with it

Evidence that the boy is being treated as non-human can be seen in subsequent comments by the sultan when talking to his wives. He refers to the boy as *ɕi* (thing:CONC).

- (13) *ndáwe* *w-ō* *ḍō* re **ɕi** [ro
 DEM:F 1SG-CMPL bring 2PL:IO thing:CONC MOD:F
Look, I’ve brought you something

- (b) *má-l* *ʃábu* re *gwáne*]_{RC}
 IRR-3SG:F wash 2PL:IO clothes
to wash (your) clothes for you

To convey that a person spent a period of time somewhere, a common expression uses *lə* to refer to where the referent of the subject was located (even if this has not been explicitly stated) during the passage of time. Note in the following example that the pronoun *lə* referring to the location, precedes the direct object (*nsê* ‘days’) since the location is realized pronominally and the direct object is realized nominally. This is described in more detail in section 19.3.

- (14) *ā* *ʃí* [**lə**]_{LOC} [*nsê* *gāsi*]_{DO}
 3SG:M:CMPL pour PRO day:PL two
He spent two days there

15.1 Summary

In this section, I have provided evidence for the proposed function of the pronoun *lə*. I have claimed that it generally functions anaphorically, referring back to an antecedent within the text which is either non-human or a location. I have shown that the pronoun *lə* is both genderless and numberless. The pronoun *lə* can function as the argument of the verb of a clause, as an object of a preposition, or as the complement of the locative copula construction. In some cases, the pronoun *lə* is non-referential, having no antecedent. In the few cases in the corpus where *lə* refers to a human, it can be shown that the human is being treated as a thing, justifying the use of the pronoun *lə* to refer to the person in question.

16 Locative particles

Makary Kotoko has four particles, *ni*, *he*, *ho*, and *yo*, which, I claim, express locative/directional information for the clause. They are mutually exclusive, which suggests that they are coding means from the same functional domain. Also, they do not occur if locative information is expressed in the clause by another means (e.g. a noun phrase or prepositional phrase conveying location). The fact that they can't occur when an expression of location is already given in the clause lends support to my proposal that they express locative/directional information. My proposal for the kind of locative/directional information that each of them contributes will be presented below. I divide this section into two parts. First, I give evidence for the claim that each of the particles codes locative/directional information by showing that they don't occur when another expression of location occurs in the clause. Second, I present my proposal for the kind of locative/directional information they code, contrasted with what is proposed in Mahamat (2005).

16.1 Evidence that the locative particles express spatial orientation information

In this section I provide evidence that the locative particles express locative/directional information by illustrating that they don't occur when another expression of location occurs in the clause. I take each particle in turn. The argumentation is the same for all four.

16.1.1 *ni*

Evidence that the particle *ni* conveys information relative to location/direction is seen in the fact that when an expression of location occurs within the clause, the particle *ni* doesn't. Consider the next three examples, each with the verb *dɛ* 'go'. In the first, the locative particle *ni* occurs. In the second a

nominal expression of location occurs, and the particle does not appear. In the third, a pronominal expression of location occurs, and the particle doesn't. I have bolded the expression of location within the clause in each case.

- (1) ngō ro ē dō **ní** k'ani ...
 place MOD:F 3PL:CMPL go L.P. CONJ
When they left, ...

- (2) ā dō **wo ro so** k'ani
 3SG:M:CMPL go village MOD:F NONSPEC:F CONJ
He went to village then ...

The pronoun *lə* in the next example is co-referential with the noun phrase in pre-subject position referring to the house.

- (3) áʔa don **hó dó** m-ú dō **lə** k'o wa
 no 1SG:IND house DET:F IRR-1SG go PRO still NEG
No, the house, I'm not going back there again

16.1.2 *he*

Evidence that the particle *he* expresses information relative to location/direction is seen in the fact that when an expression of location occurs within the clause, the particle *he* doesn't. Consider the next three examples, each with the verb *dā* 'lie down'. In the first, the locative particle *he* occurs. In the second a nominal expression of location occurs, and the particle does not appear. In the third, a pronominal expression of location occurs, and the particle doesn't. I have bolded the expression of location within the clause in each case.

- (4) k'ani ā lu ā dā **hé** a gó-n he kóm
 CONJ 3SG:M:CMPL come 3SG:M:CMPL lie.down L.P. PREP PREP-3SG:M L.P. IDEO
Then he_i came and lay down quietly beside him_k

- (5) gómnárū só dē a lū a dā **hó** **đó**
 lover DET:M S.R. NEUT:3SG:M come NEUT:3SG:M lie.down house DET:F
The lover would come and sleep at the house

- (6) aro nda dā **lo**
 CONJ INCMPL:3SG:M lie.down PRO
Then he would sleep there

16.1.3 *ho*

Evidence that the particle *ho* conveys information relative to location/direction is seen in the fact that when an expression of location occurs within the clause, the particle *ho* doesn't. Consider the next two examples, each with the verb *ɕji* 'put (of a large (countable) quantity)' in it. These are from the same text. In the first example, the locative particle *ho* occurs. The noun phrase in pre-subject position corresponds with the direct object of the clause.

- (7) nəmân dó ē ɕji **ho** fogó
 money DET:F 3PL:CMPL put L.P. all
The money, they removed all (of it)

This next example contains two clauses, both of which have the verb *ɕji* 'put (of a large (countable) quantity)' in it. In the first of these, there is a nominal expression of location (*ts'e* 'outside'), and the particle does not appear. In the second clause, there is a pre-subject noun phrase which corresponds with the pronominal expression of location within the clause. As described in section 19.3, when the location is realized pronominally and the direct object is realized nominally, the expression of

location precedes the direct object. I have bolded the expressions of location and noted (with square bracketing and subscripting) the location and direct object in the second clause.

(8) nəmân dó i ɕji ts'e
 money DET:F NEUT:3PL put outside
The money, they took (it) out

(b) aro **wāləm** **dó** i ɕji [lɛ]_{LOC} [dódō]_{DO}
 CONJ hole DET:F NEUT:3PL put PRO thorn
then the hole, they put thorns in it

16.1.4 yo

Evidence that the particle *yo* conveys information relative to location/direction is seen in the fact that when an expression of location occurs within the clause, the particle *yo* doesn't. Consider the next three examples, each with the prepositional verb *man gə* 'leave (alone)'. The first contains the particle *yo*. The second and third don't. In the second there is a nominal expression of location instead of the locative particle *yo*. In the third, the locative particle is replaced by a pronominal expression of location. I have bolded the expression of location in each case.

In this first example the object of the preposition is nominal, and is followed by the locative particle.

(9) yagí má ā man gə hāra **yó**
 who FOC 3SG:M:CMPL leave PREP war L.P.
Everyone stopped fighting

In this example, the object of the preposition is pronominal, and the expression of location is nominal (*wo dó* 'the village').

- (10) ē fō ní ē man gá-də **wo** **dó**
 3PL:CMPL run L.P. 3PL:CMPL leave PREP-3SG:F village DET:F
They ran away and left her in the village

Both the object of the preposition and the expression of location are pronominal in this next example.

- (11) ā gə rə gí man gə-dan **lə**
 3SG:M:CMPL say 3SG:M:IO COMP leave PREP-3PL PRO
He said to him, “Leave them (in) it”

Having established that the locative particles are mutually exclusive with other expressions of location, thus lending support to my claim that they express locative/directional information, I now turn to the kind of locative/directional information that each of them expresses.

16.2 Function of the locative particles

In this section, I present the evidence for the kind of locative/directional information that each of the locative particles contributes to the clause in which it occurs. I begin initially with the analysis proposed by Mahamat (2005) (and Tourneux and Mahamat (2009b) when provided), comparing and contrasting it to my own.

16.2.1 Mahamat (2005) and Tourneux & Mahamat (2009b)

For the particle *ni*, Mahamat (2005) proposes that it “exprime l’idée d’un mouvement hors du locuteur” (expresses the idea of a movement outside of the speaker) (2005:105). Tourneux & Mahamat (2009b) call the marker *ni* a ‘pronom circonstant ... à valeur centrifuge’ (a circumstantial pronoun with a centrifugal function) (2009b:225). By my analysis given below, there is no expression of movement (whether movement away (‘centrifuge’), or any other) with the use of *ni* – the idea of movement comes from the verb of motion itself.

Mahamat (2005) gives the function of the particle *he* as follows: “Cette particule évoque l’idée d’un mouvement généralement de haut vers le bas pour donner un sens précis à l’action exprimée par le verbe” (This particle evokes the idea of a movement generally from high to low in order to give a precise meaning to the action expressed by the verb) (2005:101). This is essentially the same proposal that I make below. Curiously, in a later work, Tourneux & Mahamat (2009b) give the following expression as an indication of the function of the marker *he* ‘idée de contact entre deux surfaces’ (idea of contact between two surfaces) (2009b:230).

For the particle *yo*, Mahamat (2005) notes that “cette particule évoque la diminution, la soustraction” (this particle evokes a reduction, a subtraction) (2005:102). My proposal for the function of the particle *yo* is broader in scope: the particle *yo* indicates that the action of the clause in which the particle occurs happens in a direction away from the point of reference of the clause. A reduction/subtraction interpretation would result from the combination of the particle with particular verbs, along with the nature of any arguments of the verb.

For the particle *ho*, Mahamat (2005) states that “cette particule ... indique ... un mouvement dirigé du bas vers le haut, ou un mouvement de l’extérieur vers l’intérieur.” (this particle indicates a movement directed from low to high, or a movement from the exterior toward the interior) (2005:102) . My proposal for the function of *ho* is similar to the second portion of Mahamat’s proposal in that the action of the clause in which *ho* occurs happens toward the point of reference of the clause.

Mahamat (2005) also includes a few lexical items in his list of particles (*ts'e* ‘outside’, *tán* ‘ground, *wō* ‘summit’ (marked with L tone in his transcription), *ga* ‘mouth’) (2005:101). I have not treated these as grammatical items because they retain their lexical meaning and don’t appear to show any behavior which would suggest that they have grammaticalized at this point.

Mahamat (2005) provides examples which would be ungrammatical based on the corpus I have. That is, he provides an example (52a, p.99) where the locative particle precedes the expression of the direct object. The example is reproduced below (I have modified the transcription, glossing and marking of tone to match the system in use here, and noted its ungrammaticality (*) for my corpus).

- (12) *iʃo n-ō ga yó kíɗá dó
 Isho 3SG:F-CMPL finish L.P. work DET:F
Isho finished the work

The form as it would occur based on my corpus and feedback from language consultants is given below. Mahamat (2005) notes that “il est préférable dans un langage soutenu de placer la particule après le complément d’objet” (the particle would come after the direct object in more formal speech) (2005:99). Input from language consultants indicates that the ordering in example (12) is common in the speech of young children. This may suggest the direction of evolution for this aspect of the grammar.

- (13) iʃo n-ō ga kíɗá dó yó
 Isho 3SG:F-CMPL finish work DET:F L.P.
Isho finished the work

16.2.2 *ni*

The particle *ni* is somewhat exceptional among the locative particles as it only occurs with four verbs of motion: *dā* ‘go sw^h’, *do* ‘take (sth/s.o.) sw^h’, *fō* ‘run sw^h’, and *kə* ‘accompany (s.o.) sw^h’. In section 17.3, these verbs are listed among those that take a locative complement as part of their argument structure. That is, the action described by these verbs must be carried out somewhere. If there is no expressed location, then *ni* is used in order to fulfill the requirement of an expression of location. That is, the presence of *ni* is a syntactic requirement for the four verbs in question when no other expression of location is given to indicate in which direction the action of the motion verb is carried out.

16.2.3 *he, ho, yo*

While *ni* only occurs with the four verbs of motion noted above, the other three locative particles occur with a larger number of verbs. The commonality is that these verbs allow for the expression of location in their meaning. Some verbs can occur with any of these three locative particles. Others only occur with one or two. The determining factor appears to be the meaning of the verb and whether that is compatible with the meaning of the locative particle in question. I propose that the primary function of the locative particles *he*, *ho*, and *yo* is to provide spatial orientation for the situation described in the clause. That is, the locative particles indicate the direction in which the action of the clause was carried out. In particular: (i) *he* indicates that the action of the clause in which the particle occurs happens in a downward direction (either toward the point of reference of the clause or down from the point of reference of the clause), (ii) *ho* indicates that the action of the clause in which the particle occurs happens toward the point of reference of the clause, and (iii) *yo* indicates that the action

of the clause in which the particle occurs happens in a direction away from the point of reference of the clause. What the point of reference is for a given clause is determined by context. In many cases a verb with the particle will have more than one possible meaning (depending, in part, on how it is used in context). There is generally a more concrete meaning and possibly one or two more abstract meanings. My proposed analysis deals primarily with the more concrete meaning, though it is often possible to see a logical connection between the concrete meaning and the more (probably derived) abstract ones.

There are about 270 verbs in the lexicon I have for Makary Kotoko. About sixty of those occur in the corpus with one or more of the locative particles. There are still more verbs in the lexicon (though not in the corpus) which occur with the locative particles. If my proposal is going in the right direction, it would suggest that spatial orientation (over temporal orientation for instance) is an important aspect of the grammar of the language. Verbs that occur with the locative particles are those that convey position and change of position (e.g. *sā* ‘sit’, *ǫí* ‘remain’, *dā* ‘lie down’, *só* ‘enter’, *bō* ‘pierce’, *k’ō* ‘fall’, *k’ūra* ‘bend, twist’, *sō* ‘arrive’), and verbs which place something somewhere (e.g. *dō* ‘put (of a small countable quantity)’, *dē* ‘throw’, *dō* ‘bring’, *gá* ‘put (of a large countable quantity)’, *hó* ‘put (forcefully?)’, *ǫí* ‘put (of a large non-countable quantity)’).

In short, my proposal is that *he* conveys a downward direction of the action of the verb, *ho* indicates that the action of the verb occurs toward some point of reference, and *yo* that the action of the verb occurs moving away from the point of reference. Examining the meaning of a given verb and how that meaning is altered with the addition of one or another of the locative particles is a way to test the

validity of my proposal. A weakness of this approach is that it relies on translation for confirmation of the proposed functions. At this point, I have no better approach to propose. Consider for instance the verb *gá* with the meaning ‘put (of a large countable quantity)’. This verb occurs with all three particles. With the particle *he*, this would mean to put (sth) in a downward direction. The translation I have for *gá he* is ‘build’. Building in the Kotoko area involves putting sun baked bricks down, one on top of another with mud as the mortar. With the particle *ho*, this would mean to put toward the point of reference. The translation I have for *gá ho* is ‘wrap up, roll up’. With the particle *yo*, this would mean to put away from the point of reference. The translation I have for *gá yo* is ‘diminish, reduce (in quantity)’.

Consider, as well, the verb *hə* ‘put (forcefully?)’ which occurs with all three particles. With the particle *he*, this would mean to put (sth) forcefully in a downward direction. The translation I have for *hə he* is ‘drop’, ‘spread out’, ‘tame an animal’. With the particle *ho*, this would mean to put (sth) forcefully toward the point of reference. The translation I have for *hə ho* is ‘lift up’, ‘straighten’, ‘vomit (sth stuck in the throat)’. With the particle *yo*, this would mean to put (sth) forcefully away from the point of reference. The translation I have for *hə yo* is ‘throw away’, ‘abandon’.

Consider the verb *ts’a* ‘cut’ which occurs with all three particles. With the particle *he*, this would mean to cut in a downward direction. The translation I have for *ts’a he* is ‘cut a strip, cut in an orderly fashion’. With the particle *ho*, this would mean to cut toward the point of reference. The translation I have for *ts’a ho* is ‘cut in half, cut down the middle’. With the particle *yo*, this would mean to cut away from the point of reference. The translation I have for *ts’a yo* is ‘tear a piece of sth off’.

Admittedly, in some cases it is not clear how my proposed meanings for the locative particles connects with the translations I have for them with a given verb. This is particularly true when I have been unable to come up with an adequate meaning of the verb by itself. Consider the verb *la* which can occur with all three locative particles. I have been unable to isolate a meaning for this verb. However, with *he* it means ‘escape’. With *ho*, it means ‘hatch (an egg)’. With *yo*, it means ‘get rid of, exterminate’.

In the next segment, I compare the locative particles in pairs. Comparing *he* with *ho*, consider the verb *bō* ‘pierce’. With the particle *he*, this would mean to pierce in a downward direction. The translation I have for *bō he* is ‘dive’. With the particle *ho*, this would mean to pierce toward the point of reference. The translation I have for *bō ho* is ‘germinate, be discovered’.

As described in sections 11.2.2 and 11.2.3, the preposition *gə* can combine with the locative particles *he* and *ho*. The use of the particles in these contexts can provide additional support for the proposed functions of these particles. Consider the next two examples, each with the verb *dē* ‘put’. The only difference in the bolded portions of the examples is the presence of *he* in the first and *ho* in the second. As such, a difference in meaning should be attributable to the meaning of the particle. The referent of the 3SG:M pronoun in the first example is a dog. My proposed function for *he* would mean that someone is to put something down relative to a reference point – in this case, the dog. The meaning of the clause is that someone is to put water by/beside/next to the dog (i.e., give the dog water).

- (14) aro da amé **d̥ɔ̃** **gɔ́-n** **he**
 CONJ IMP:2SG:draw water IMP:2SG:put PREP-3SG:M L.P.
then draw water and put it by him

The referent of the 3SG:M pronoun in this next example is a person. The noun phrase in pre-subject position and marked with the concessive marker *yahe* corresponds with the direct object of the clause. My proposed function for *ho* would mean that someone is to put money toward a reference point – in this case, the man. The meaning of the clause is that someone is to put money on the man (i.e., make the man pay a sum of money, place a debt upon him).

- (15) nəmân garo yahe **d̥ɔ̃** **gɔ́-n** **ho**
 money how.much even IMP:2SG:put PREP-3SG:M L.P.
However much money put it on him (i.e., make him pay it)

In my proposed functions for *he* and *ho*, there is the potential that they could be used in the same context. Remember that (i) *he* indicates that the action of the clause in which the particle occurs happens in a downward direction (either toward the point of reference of the clause or down from the point of reference of the clause), and (ii) *ho* indicates that the action of the clause in which the particle occurs happens toward the point of reference of the clause. An action carried out in a downward direction toward the point of reference could thus be conveyed by either *he* or *ho*. Interestingly, this is indeed the case for the verb *k'ūra*. With either *he* or *ho* it means ‘bend, twist, curve’.

Comparing *he* and *yo*, consider the verb *dē* ‘throw’. With the particle *he*, this would mean to throw sth in a downward direction. The translation I have for *dē he* is ‘throw s.o. down’ (in the context

of a traditional wrestling match)’. With the particle *yo*, this would mean to throw away from the point of reference. The translation I have for *dē yo* is ‘open (a door)’.

Also consider the verb *ʃí* ‘put (of a large non-countable quantity)’. With the particle *he*, this would mean to put a noun-countable quantity in a downward direction. The translation I have for *ʃí he* is ‘pour, drop’. With the particle *yo*, this would mean to put a non-countable quantity away from the point of reference. The translation I have for *ʃí yo* is ‘spill’.

Finally, comparing *ho* and *yo*, consider the verb *ʃá* for which I have been unable to come up with a meaning in isolation. With the particle *ho* (action toward the point of reference), it means ‘pick up’. With the particle *yo* (action away from the point of reference), it means ‘sweep’.

16.3 Summary

In this chapter I have provided evidence that the four particles *he*, *ho*, *yo*, and *ni* express locative/directional information for the clauses in which they occur. I have noted that they are mutually exclusive, suggesting that they are components of the same functional domain. I have shown that when an expression of location is given in a clause, the particles do not occur. This suggests that the functional domain they code is relative to locative/directional information. By comparing how the meaning of verbs change with the change of particles, I have proposed the following functions for the particles: (i) *he* indicates that the action of the clause in which the particle occurs happens in a downward direction (either toward the point of reference of the clause or down from the point of reference of the clause), (ii) *ho* indicates that the action of the clause in which the particle occurs

happens toward the point of reference of the clause, (iii) *yo* indicates that the action of the clause in which the particle occurs happens in a direction away from the point of reference of the clause, and (iv) *ni* is only used with four verbs of motion when no location is expressed in the clause in order to fulfill the argument structure requirements of those verbs.

17 Verb argument structure

In this chapter I discuss the different types of verbs in Makary Kotoko based on their argument structure. In the process I provide evidence for recognizing the grammatical relations (i) subject, (ii) direct object, and (iii) indirect object. All verbal clauses obligatorily contain a subject marker which codes for person, number, and gender (for 3SG) of the subject but also provides aspectual/modal information for the clause. The only exceptions are verbs in the 2SG imperative (discussed in section 24.1) and nominalized verb forms (discussed in sections 5.3 and 5.4). The subject marker always precedes the verb. Unlike the pronominal coding for other arguments, the subject marker is not a pronoun, as it does not stand ‘in the place of’ a noun (phrase). There may be a noun phrase in pre-subject position, or one that is postposed with which the subject marker is co-referential, but the noun phrase is (grammatically) optional while the subject marker is obligatory.

Verbs can be grouped based on whether an obligatory argument follows the verb. Where that argument is positioned after the verb relative to other arguments depends upon which arguments are expressed and the nominal/pronominal nature of their expression. That issue is dealt with in chapter 19. If a verb can take no argument after it then I call that verb an intransitive verb. There are about two dozen verbs of this type in the corpus, many of which express property concepts. A subgroup of these verbs gives possible evidence that an object may be incorporated into the verb form.

If an argument must follow the verb, then it is a transitive verb. These are of two types: (i) for a small group of verbs, the required argument is the direct object and is semantically an undergoer – that

is, it undergoes the action expressed by the verb; (ii) for another group of verbs, the required argument is a locative complement. I call this second group ‘locative complement taking verbs’.

The largest group of verbs are those that can be either transitive or intransitive. The direct object argument can (i) occur after the verb in its canonical position, (ii) occur before the verb in the pre-subject position, or (iii) be simply understood by context, possibly having been mentioned in a preceding clause. For cases (ii) and (iii) it would be grammatically possible to place the argument in its canonical position after the verb. (I address the pragmatic reasons for placing an argument in pre-subject position in chapter 26.) I call these verbs ambitransitives, specifically S = A ambitransitive verbs. What this means is that the single argument of the intransitive clause (S) would be co-referential with the most agent-like argument of the corresponding transitive clause (A). Whether S = O ambitransitives exist is also discussed in this section.

A subgroup of the ambitransitive verbs is a group of about a dozen verbs that obligatorily take the marker *gə* after the verb. This marker occurs in a variety of contexts (described in section 11.2.1) and is typically followed by a noun phrase. As such, I call it a preposition. Consequently, verbs that require the preposition *gə* following are called ‘prepositional verbs’. The object of the prepositional verb need not be expressed, but the preposition is always present with these verbs. Below, I discuss, in turn, intransitive verbs, transitive verbs, locative complement taking verbs, ambitransitive verbs, and prepositional verbs.

17.1 Intransitive verbs

The following table provides a list of verbs in the corpus which cannot take an argument after the verb.

Verb	Meaning	Verb	Meaning
ɗalá	<i>not exist</i>	gər̩jĩ	<i>be tired</i>
nāən	<i>not yet</i>	k'wājĩ	<i>be full</i>
ts'āga	<i>get up</i>	gē	<i>be finished</i>
seygá	<i>be quiet</i>	swē	<i>cry, be played (of an instrument)</i>
fəlá	<i>dance</i>	dū	<i>walk</i>
hyû	<i>be(come) skinny</i>	tʃ'ā	<i>laugh</i>
mbîn	<i>be good</i>	tĩ	<i>swell</i>
lē	<i>be pleasing</i>	mādō	<i>die</i>
bē	<i>be(come) fat(tened up)</i>	fāde	<i>shine</i>

Table 17.1 Intransitive verbs

More information about the negative existential verb *ɗalá* ‘not exist’ as well as *nāən* ‘not yet’ is given in sections 22.3 and 22.4, respectively. Exceptionally, the verb *mādō* ‘die’ undergoes a tonal change [mādó] when followed by an expression of location.

The following three intransitive verbs are unusual by the long [i] vowel and the rising tonal pattern on that vowel.

Verb	Meaning
ɕĩ:	<i>refuse</i>
fĩ:	<i>stink, smell bad</i>
mĩ:	<i>? (used within an insult)</i>

Table 17.2 Exceptional intransitive verbs

The first two have related forms which take an object (*ɕĩ gə* ‘abandon, refuse sth’ and *fĩ* ‘waft (of a smell) toward s.o.’). The third only occurs in the following fixed expression used as an insult.

- (1) nɕ́ír̥bū ro-ngó a mǐ:
 insult(SP) MOD:F-POSS:2SG:M NEUT:3SG:M ?
 {*strong insult*}

The (synchronically) intransitive verbs in the table below give possible evidence of having incorporated a following object based on either their unusual phonological shape (for the first four verbs) or their syntactic behavior (for the last verb). In the third column of the table below, I propose possible diachronic sources for their current form.

Verb	Meaning	Possible source
dīē	<i>travel</i>	dā wīē go trip
hāmo	<i>be wrong?</i>	ha mo do:APPL 1 PL:INCL:IO
ḃāse	<i>be bad</i>	ḃā si he tie REFL L.P.
samasân	<i>be afraid</i>	sā ma nsân sit ? sleep
to	<i>return home</i>	tə ho return home

Table 17.3 Intransitive verbs with an incorporated object?

The first three verbs in the list have the phonological shape CV(C)V, where both vowels are not [a].

This is an exceptional form for verbs. I discuss the interrogative verb *hāmo* ‘be wrong?’ in section

23.2.6. The verb *samasân* ‘be afraid’ is the only verb in the language with the structure CaCaCaC.

Possible evidence that *to* ‘return home’ is morphologically complex is seen in this next example where the verb is followed by the possessive determiner. This is exceptional since the possessive

determiner is generally preceded by a head noun that it modifies. That the possessive can directly follow the verb suggests that the verb has incorporated the element that the possessive determiner is modifying.

- (2) k'ani n-ō fō ní n-ō to ro-gó-də
 CONJ 3SG:F-CMPL run L.P. 3SG:F-CMPL return.home MOD:F-POSS-3SG:F
Then she ran away and returned (to her) home

A few intransitive verbs in the corpus have been borrowed, primarily from Shoa Arabic.

Verb	Meaning
f(ə)wákā	get angry, quarrel, fight
k'ūlī	get angry and leave home
dáwal	spend time, last, delay
wālə	give pain, hurt, be difficult, be expensive

Table 17.4 Borrowed intransitive verbs

17.2 Transitive verbs

Only a small number of verbs in the corpus are transitive in the sense that they have to have a direct object argument after the verb. The following table provides a list of verbs in the corpus which must have a direct object after the verb.

Verb	Meaning
fára	<i>overtake, abuse, surpass</i>
ɕigala	<i>surpass</i>
ka	<i>find, get</i>
ká	<i>stop, hold back, support</i>
kadó	<i>follow</i>
wē	<i>give birth to</i>
yā	<i>become</i>

Table 17.5 Transitive verbs

The verb *ka* ‘find’ is one of the verbs which consistently has a direct object after the verb. In this next example there is mention of a clay jar in the first line. It is in pre-subject position for the first clause (which ends with the conjunction *dó* at the end of line (b)). The verb *ka* ‘find’ is in the complement clause of line (c). There is a resumptive pronoun in the canonical direct object position referring back to the clay jar mentioned in the first line.

Transitive verb *ka* ‘find’

(3) **lówó** **ro-g-u** **dó**
 clay.jar MOD:F-POSS-1SG DET:F
My water jar,

(b) **yá** **ro-gó-ne** **n-ō** **ba** **gə** **māngə** **dó**
 mother MOD:F-POSS-1PL:EXCL 3SG:F-CMPL tie PREP ceiling CONJ
my mother tied (it) to the ceiling

(c) **u** **bó** **gó** **u** **ka** **lə** **wa**
 NEUT:1SG be.able PREP NEUT:1SG find PRO NEG
I can't get it

The pronoun *lə* (PRO) in the previous example is used for non-human and locative referents (as described in chapter 15). When the referent of the direct object is human and pronominally realized the forms that are generally used are those given in the following table. Note that the 2SG:M, 2SG:F, 3SG:F, and 3PL pronouns have H tone, while all the others are have L tone. (More details on the tonal realization of the direct object pronouns are given in Appendix C.) When this set of pronouns is used, the referent is understood as a semantic undergoer (i.e., patient).

Person	Direct object pronoun
1SG	n
2SG:M	kón
2SG:F	tó
3SG:M	rə
3SG:F	dé
1PL:INCL	mo
1PL:EXCL	ne
2PL	re
3PL	dán ¹

Table 17.6 Direct object pronouns

The transitive verb *fěra* ‘surpass’ takes the 2SG:F direct object pronoun in the next example.

- (4) [séló [n a fěra tó]_{RC}CS nda [lə]_{CC} wo
 bird MOD:M NEUT:3SG:M surpass 2SG:F:DO be.at:M PRO POL
Is there a bird that surpasses you (in this regard)?

The verb *yā* ‘become’ generally expresses the idea of entering into a state. It is exceptional in that the obligatory ‘object’ argument need not be a noun phrase. It can be a (descriptive) adjective or a quantifier. As such, it is similar to the juxtaposition construction – one of the non-verbal predication types described in section 21.1 – which can also have adjectives and quantifiers as its complement. Given that similarity, it would be possible to analyze *yā* as a verbal copula. The subject marker is the copula subject (noted _{CS}) and the element following the verb is the copula complement (_{CC}). I provide illustration of each type of complement below.

¹ The 3PL direct object pronoun is marked with L tone in Mahamat (2005:53) while it is consistently realized with H tone in my corpus.

Copula complement is a noun

- (5) dan da [m-á]_{CS} yā [me só]_{CC}
 3SG:M:IND CONTR IRR-3SG:M become sultan DET:M
He's the one that will be sultan

Copula complement is an adjective

- (6) nyi dó [n-ō]_{CS} yā [tábōr]_{CC}
 thing:ABSTR DET:F 3SG:F-CMPL become thick
It (i.e., the situation) became known
(lit. it became thick)

Copula complement is a quantifier

- (7) ṣārgū ɗe ndáwe [n-ō]_{CS} yā [kádáǵá]_{CC}
 sickness S.R. DEM:F 3SG:F-CMPL become a.lot
There is a lot of sickness (in the region these days)

17.3 Locative complement taking verbs

Locative complement taking verbs require the expression of location as part of their argument structure. These can be divided into two types: (i) four verbs of motion (*dā* 'go', *fō* 'run', *do* 'take to', *kə* 'accompany'), and (ii) (generally) verbs of position or change of position (e.g. *sā* 'sit', *ǵí* 'remain', *dā* 'lie down', *só* 'enter', *k'ō* 'fall', *k'ūra* 'bend, twist').

17.3.1 Verbs of motion

For the verbs of motion *dā* 'go', *fō* 'run', *do* 'take to', *kə* 'accompany', the action carried out must be done somewhere or in/from some direction. The first two, *dā* 'go' and *fō* 'run', only take a location. The last two, *do* 'send' and *kə* 'accompany', can also take an indirect object. Though it is syntactically the indirect object (as will be shown below), it is semantically the thing or person that is sent/accompanied to a particular location. It appears that the expression of location constitutes the direct object for these verbs. The location can be expressed by: (i) a noun phrase, (ii) the pronoun *lə* (PRO),

(iii) a prepositional phrase, or (iv) the locative particle *ni*. This marker only occurs with these four verbs. It is, in fact, because of this marker that I set these four verbs apart from the other locative complement taking verbs. When the action of the verb is carried out and there is no expression of where or in which direction the action happens, the locative particle *ni* is required. I illustrate the four possibilities for the expression of a location below.

Location expressed by noun phrase

- (8) *ā* *dē* **wo** **ro** **so** *k'ani* ...
 3SG:M:CMPL go village MOD:F NONSPEC:F CONJ
He went to a village then ...

Location expressed by noun phrase (indirect object also expressed)

- (9) *kə* *n* **wo** **ro-gə** **yá** **ro-gó-ne**
 IMP:2SG: accompany 1SG:IO village MOD:F-POSS mother MOD:F-POSS-1PL:EXCL
Accompany me to my mother's village

In the next example, the nominal realization of the location is in pre-subject position. As such, there is a resumptive pronoun in the canonical position (following the verb).

Location expressed by pronoun *lə* (PRO)

- (10) *á?a* *don* *hó* *dó* *m-ú* *dē* **lə** *k'o* *wa*
 no 1SG:IND house DET:F IRR-1SG go PRO still NEG
No, as for me, the house, I won't go back there again

In the next two examples a prepositional phrase expresses the location.

Location expressed by prepositional phrase

- (11) *wa* *ndá-y* *fō* **gə-n** *gó* *skí*
 thing:CONC:PL INCMPL-3PL leak PREP-3SG:M with blood
Things (i.e., pus) flowed from him along with blood

Location expressed by prepositional phrase (indirect object also expressed)

(12) w-ō do re
 1SG-CMPL take 2PL:IO
If I take you

(b) gó-1 kábār ro-gə yá ro-gó-ne dó aro ...
 head-NMOD:F grave MOD:F-POSS mother MOD:F-POSS-1PL:EXCL DET:F CONJ
to my mother's grave site then ...

When no specific location is given, the locative particle *ní* occurs in the canonical position (following the verb). This is shown in the next two examples.

Location expressed by locative particle *ní*

(13) gáko dó n-ō sī ló ro-gó-də dó
 front DET:F 3SG:F-CMPL take child MOD:F-POSS-3SG:F DET:F
Next she took her child

(b) n-ō fō ní
 3SG:F-CMPL run L.P.
and ran away

Location expressed by locative particle *ní* (indirect object also expressed)

(14) n-ō gə rə gí a kə də ní
 3SG:F-CMPL say 3SG:M:IO COMP NEUT:3SG:M accompany 3SG:F:IO L.P.
She told him to accompany her

In this previous example, if the 3SG:F pronoun *də* were the direct object, it would be realized with H tone. Being realized with L tone gives evidence for the fact that it is syntactically the indirect object of the clause, even though semantically it is the one being accompanied. The forms of the indirect object pronouns are given in the following table.² Segmentally, these are identical to the direct object pronouns

² Mahamat (2005) fails to identify the indirect object series of pronouns which are formally distinguished from the direct object pronouns by their tonal realization. Instead, he labels a different pronominal series as the indirect object pronouns (2005:53). I have termed that series the prepositional pronouns (cf. Appendix C). They combine with a subset of verbs termed prepositional verbs (cf. section 17.5). These verbs require the presence of the preposition *gə* before its object. If the object is realized pronominally, the prepositional pronouns are used.

given above. However, note that unlike the direct object pronouns, the tonal realization is consistent throughout the paradigm. More details on the tonal realization of the indirect object pronouns is given in Appendix C.

Person	Indirect object pronoun
1SG	n
2SG:M	kən
2SG:F	tə
3SG:M	rə
3SG:F	də
1PL:INCL	mə
1PL:EXCL	ne
2PL	re
3PL	dən

Table 17.7 Indirect object pronouns

Additional evidence that this is indeed the indirect object pronoun series, can be seen from the following two examples which contain the verb *dəgā* ‘show’, which can take both an indirect object and direct object. In the first example both the indirect object and the direct object are expressed. The L tone on the 2SG:M pronoun indicates that it is the indirect object of the clause.

- (15) ē dəgā [kən]_{IO} [kída ro-gə-dən]_{DO} wə
 3PL:CMPL show 2SG:M:IO work MOD:F-POSS-3PL POL
 Did they show you their work?

In the following example what would be the direct object has been given earlier in the text. The indirect object is realized after the verb. Again, the L tone on the 2SG:M pronoun indicates that it is the indirect object of the clause.

- (16) sí kanadí gí m-í dógā [kən]_{IO}
 IMP:2SG:pull patience COMP IRR-3PL show 2SG:M:IO
Be patient because they'll show you (it)

For the four verbs of motion described above, the semantic undergoer (the one undergoing the action of the clause) is syntactically realized as the indirect object. This is likely because, for such verbs, the expression of location is treated like the direct object of the clause. The same is true for verbs of position and change of position discussed directly below.

17.3.2 Verbs of position and change of position

Verbs of position or change of position (e.g. *sā* 'sit, dwell', *ǰí* 'remain', *dā* 'lie down', *só* 'enter', *k'ō* 'fall', *k'ūra* 'bend, twist') also take an obligatory locative complement. When no nominal or pronominal realization of location is given, then one of the other three locative particles (*he*, *ho*, *yo*, discussed in chapter 16) is used. Which one is used depends in part on the inherent meaning of the verb, and on the spatial orientation that the speaker wants to convey. The next three examples contain the verb *dā* 'lie down, sleep' with a nominal expression of location, pronominal expression of location, and the verb particle *he* as the expression of location, respectively.

Location expressed by noun phrase

- (17) gómnárū só ǰe a lū a **dā** hó **dó**
 lover DET:M S.R. NEUT:3SG:M come NEUT:3SG:M sleep house DET:F
The lover would come and sleep at the house

Location expressed by pronoun *lə* (PRO)

- (18) sǝ ro gí ā dǝ ngwǎǰé a mawá-sǝn
 day MOD:F COMP 3SG:M:CMPL go wrestling.match PREP journey
When(ever) he would go to wrestling match away from home

- (b) aro nda **dā** **lə**
 CONJ INCMPL:3SG:M sleep PRO
he would sleep there

Location expressed by locative particle *he*

- (19) k'ani ā lū ā **dā** **hé** a gó-n he kóm
 CONJ 3SG:M:CMPL come 3SG:M:CMPL sleep L.P. PREP PREP-3SG:M L.P. IDEO
Then he came and lay down beside him quietly

There are a number of other verbs which can (though need not) take a locative complement.

These are often verbs which place something somewhere (e.g. *dā* ‘put (of a small countable quantity)’, *dē* ‘throw’, *dō* ‘bring’, *gá* ‘put (of a large countable quantity)’, *hə* ‘put (forcefully?)’, *ʃi* ‘put (of a large non-countable quantity)’).

17.4 Ambitransitive verbs

Most verbs in the corpus are ambitransitive of the S = A type. What this means is that these verbs can occur with or without a following direct object. Furthermore, the single argument of the intransitive clause (S) corresponds with the most agent-like argument of the transitive clause (A) in comparable clauses. What I mean by this can be illustrated from examples in English. The verb ‘eat’ would be characterized as an S = A ambitransitive verb. Consider the intransitive clause, ‘Juan ate’, and the transitive clause, ‘John ate his lunch’. The S argument (Juan) of the intransitive clause would correspond with the A argument (John) of the transitive clause as opposed to the O argument (i.e. the most patient-like argument of the transitive clause) ‘his lunch’.

The table below contains a short list of some of the ambitransitive verbs in the corpus.

Verb	Meaning
básə	<i>reimburse, pay back</i>
bāts'ə	<i>pluck</i>
dítʃ'i	<i>pound</i>
fē	<i>fight</i>
hōn	<i>do, make</i>
járābu	<i>try, test</i>
k'əma	<i>hide</i>
ndə	<i>see</i>
sē	<i>drink</i>
səm	<i>eat</i>

Table 17.8 Ambitransitive verbs

The direct object argument for ambitransitive verbs can (i) occur after the verb in its canonical position, (ii) occur before the verb within the same clause in pre-subject position, or (iii) be simply understood by the context, possibly having been mentioned in a preceding clause. The next three examples illustrate these three possibilities for the verb *ndə* 'see'.

Transitive example: *ndə* 'see'

- (20) *mafi ā ndə hóngwó lāke a sī*
 hyena 3SG:M:CMPL see goat each NEUT:3SG:M take
A hyena takes every goat he sees

The pre-subject noun phrase in this next example is modified by a relative clause. It corresponds with the direct object of the clause (i.e., were it placed in its canonical position, it would be in the position in which the direct object would occur).

Intransitive example, object in pre-subject position: *ndə* 'see'

- (21) *nyi [ro ndá-y ha ne]_{RC} dó*
 thing:ABSTR MOD:F INCMPL-3PL do:APPL 1PL:EXCL:IO DET:F
What they do to us,

- (b) kən **g-ō** **ndə** wo
 2SG:M:IND 2SG-CMPL see POL
you, did you see?

In this next example, the verb *ndə* ‘see’ occurs in an adverbial clause of reason at the end of line (b).

The understood direct object of the verb is given in the first line (and modified by a relative clause).

Intransitive example, understood ‘object’: *ndə* ‘see’

- (22) **nyi** [ro **g-ō** **də** **do** lə]_{RC} **dó**
 thing:ABSTR MOD:F 2SG-CMPL put MMR PRO DET:F
The way you put it (on it)

- (b) **dəgā** n **gí** **u** **ndə**
 IMP:2SG:show 1SG:IO COMP NEUT:1SG see
show me so I can see

There are no S=O ambitransitive verbs in the language. One possible exception to this would be the ‘grooming’ verb *mban* ‘wash’ which is lexically reflexive when used intransitively (i.e., unlike most other verbs, it does not make use of the reflexive marker *si* to indicate that the animate referent of the subject of the clause carries out the action on itself). When used transitively *mban* indicates that the referent of the subject carries out the action of washing on the referent of the direct object, as illustrated below.

- (23) **ā** **də** **ní** **ā** **mban** **rə** **lán**
 3SG:M:CMPL go L.P. 3SG:M:CMPL wash 3SG:M:DO IDEO
He went and thoroughly washed him

When used intransitively, it indicates that the action of the verb is carried out on the referent of the subject by that referent.

- (24) **ā** **mban** lán k'ani ā so gwáne n-gə-n
 3SG:M:CMPL wash IDEO CONJ 3SG:M:CMPL wear clothes MOD:PL-POSS-3SG:M
He bathed thoroughly and put on his clothes

Since this verb is lexically reflexive when used intransitively, it could be construed as either S = A ambitransitive, or S = O ambitransitive. That is, the S of the intransitive clause can correspond with either the A or the O of the corresponding transitive clause (S = A = O).

17.5 Prepositional verbs

Prepositional verbs are a subtype of ambitransitive verbs. These obligatorily have the preposition *gə* following. As noted in section 11.2.1, *gə* is an ambitransitive preposition. This means that its object can follow it (in which case it has the form *gə*) or its object can occur in pre-subject position or be understood by context (in which case it has the form *gə*). There are about a dozen verbs in the corpus which obligatorily take the preposition *gə* following. These are given in the following table. The first verb in the list, *bó gə* ‘be able’, is exceptional in a couple ways. It generally takes only a clausal complement and it (almost) always occurs in negative contexts. I address it in section 22.6.

Verb	Meaning
bó gə	<i>be able</i>
yá gə	<i>want, need, search for</i>
ʃin gə	<i>hear, feel</i>
sábə gə	<i>wait for</i>
k'ō gə	<i>hold, catch</i>
kárān gə	<i>stretch out (legs)</i>
karan gə	<i>load/unload a burden on/from s.o.</i>
haʃ'an gə	<i>shake sth</i>
ɕā gə	<i>risk, venture</i>
man gə (yo)	<i>leave sth swh</i>
ha gə (yo)	<i>forbid</i>

Verb	Meaning
i yo gə	teach

Table 17.9 Prepositional verbs

The following pair of examples show transitive and intransitive instances of the prepositional verb *yá gə* ‘want’, respectively.³

Transitive example: *yá gə* ‘want’

- (25) mā [ro ā sī]_{RC} dó
 woman MOD:F 3SG:M:CMPL take DET:F
The woman he took (as his wife)

- (b) əl yá gə ló dó wa
 NEUT:3SG:F want PREP child DET:F NEG
didn't like his daughter

Intransitive example, with object in pre-subject position: *yá gə* ‘want’

- (26) don só keyfí da u yá gó
 1SG:IND DET:M fat CONTR NEUT:1SG want PREP
As for me, it's fat that I want

I propose that the form *gó* of the preposition *gə* is a coding means used to indicate that the object of the preposition can be determined by context. In the previous example, the object of the preposition was in pre-subject position. There are instances in the corpus where the determination of the ‘object’ of the preposition requires an understanding of the larger discourse context. The context of this next example is that Death has bought a goat that is to be slaughtered as a sacrifice when Death’s mother passes away. Death is looking for someone to take care of the goat in the meantime. Hyena offers to take care of the goat and, predictably, eats it instead. Death’s mother dies and now Death is looking for Hyena in order to get the goat back for the sacrifice. In the example, Hyena is talking to

³ The prepositional verb *yá gə* ‘want, need, search, look for’ is tonally distinct from the copula verb *yā* ‘become’.

Squirrel, explaining his predicament. The prepositional verb *yá gə* ‘want’ occurs at the end of line (d).

The understood ‘object’ of the verb occurs in the first line of the example (and again in line (e)).

Intransitive example, understood ‘object’: *yá gə* ‘want’

(27) [madí da]_{CS} gó [hóngwó ro-gə-də]_{CC}
 death CONTR with goat MOD:F-POSS-3SG:F
Death had a goat

(b) gí yá-y la yá ro-gə-dan do sārga
 COMP VOL-3PL kill mother MOD:F-POSS-3PL as sacrifice
that they were going to kill as a sacrifice in honor of Death’s mother

(c) k’ani don w-ō tágə
 CONJ 1SG:IND 1SG-CMPL eat
and I ate (the goat)

(d) a-sə-ró əl yá gó
 PREP-day-DEM:F NEUT:3SG:F want PREP
Today, she wants (it)

(e) k’ani hāngwo do w-ō ka lə wa
 CONJ goat DET:F 1SG-CMPL find PRO NEG
and I can’t find the goat

For prepositional verbs, the preposition *gə* (and its object, when present) occur in the same (relative) position within the verb phrase that the direct object would occur in for other (non-prepositional) verbs. This means that the preposition follows the expression of the indirect object as well as the means/manner/reason (MMR) marker *do* (whose function is described in section 19.2) when either of these is present. In this next example the indirect object pronoun precedes the preposition (and its following object).

Indirect object precedes preposition (object of preposition is in canonical position)

object pronouns by their tonal realization, giving evidence for distinguishing these grammatical relations within the language. For locative complement taking verbs it was seen that if a semantic undergoer is expressed, it occurs before the expression of location, being syntactically coded as an indirect object. This gives evidence that the expression of location is treated as the direct object for locative complement taking verbs. S = A ambitransitive verbs constitute the largest class of verbs in the language. These verbs may or may not have an argument expressed after the verb. A subgroup of the ambitransitive verbs are what I call prepositional verbs which are always followed by the preposition *gə*. This preposition has an alternate form *gɔ* when the object of the preposition is placed in pre-subject position or is understood by context. The function of this distinct form is to code that the object of the preposition is recoverable from the context.

18 Reflexive and Reciprocal markers

In this chapter I present the functions of the reflexive marker *si* (REFL) and the reciprocal marker *maráǵə* (RECIP) of Makary Kotoko. The forms of the reflexive and reciprocal markers do not change when the gender/number of its antecedent changes. I describe each marker in turn below.

18.1 Reflexive marker

As Frajzyngier (1999) points out, markers that are called ‘reflexives’ in languages may actually have functions other than “the prototypical reflexive function, i.e. coreferentiality of subject and object (or agent and patient)” (Frajzyngier 1999:126). In some cases, the use of the reflexive marker may instead code that the referent of the subject marker is affected by the action expressed in the clause. This notion of ‘subject affectedness’ (cf. Frajzyngier 1999:128) would actually cover all uses of the ‘reflexive’ marker in Makary Kotoko. That is, in all case in which the reflexive marker is used, it indicates that the referent of the subject marker is affected by the action of the clause. When the referent is animate, it is understood that, with the use of the reflexive marker, the referent carries out the action of the verb on itself (thus fulfilling the prototypical reflexive function). If, however, the referent is inanimate, then the use of the reflexive marker indicates the affectedness of the referent of the subject marker without specifying who/what carried out the action. Context may give an indication of who/what caused the action to be done to the referent of the subject marker, but this is not directly expressed within the clause. That is, for Makary Kotoko the animacy of the referent of the subject marker affects the interpretation of the function of the reflexive marker.

The transparent source for the reflexive marker is the noun *si* ‘body’.¹ The reflexive marker occurs in the position in which the direct object occurs when it is present. The next three examples show the reflexive as the object of a transitive verb, ambitransitive verb, and prepositional verb, respectively. Note in the first two examples with animate referents for the subject marker how the reflexive conveys the idea that the action of clause is carried out on the referent of the subject marker by the referent of the subject marker.

Reflexive as direct object of transitive verb *ká* ‘stop’

- (1) we hāmo wē ká si
 NEUT:2PL be.wrong 2PL:CMPL stop REFL
 Why did you stop?

Reflexive as direct object of ambitransitive verb *k'āma* ‘hide’

- (2) gáko dó ā fō ní ā k'āma si
 front DET:F 3SG:M:CMPL run L.P. 3SG:M:CMPL hide REFL
 Then he ran away and hid

The next example contains the verb *bó gə* ‘be able’. It is almost always used in negative contexts and is discussed more in section 22.6.

Reflexive as object of prepositional verb *bó gə* ‘be able’

- (3) ē ɕǎ: gí mǎ-l bó gə si wa
 3PL:CMPL refuse COMP IRR-3SG:F be.able PREP REFL NEG
 They refused because it wouldn't be possible

Like direct objects, the reflexive marker follows indirect objects, as shown in both clauses of this next example.

¹ Cf. Mahamat 2005:61 for a brief note on the reflexive marker.

- (4) abá la n si de a la rə si wa
 friend IMP:2SG:cut 1SG:IO REFL S.R. NEUT:3SG:M cut 3SG:M:IO REFL NEG
“Friend, move aside for me,” but he wouldn’t move aside for him

Like direct objects, the reflexive follows the means/manner/reason marker *do*, as shown in line (b) of the next example.

- (5) ... nyi ro kəmani ā fi fā-e aro
 thing:ABSTR MOD:F god 3SG:M:CMPL give year-PL CONJ
if God gives (you) long life

- (b) wê do do si a dunía só
 IRR:2PL take.to MMR REFL PREP world DET:M
you’ll live in the world by it (i.e., the advice I give)

Like direct objects, the reflexive precedes the expression of location, as seen in line (b) of this next example.

- (6) ndá-l dō ní əl dáwo-l ngoḏí
 INCMPL-3SG:F go L.P. NEUT:3SG:F buy-CAUS curdled.milk
She went to sell (her) curdled milk

- (b) kʼani ā jí si lam
 CONJ 3SG:M:CMPL pour REFL river
then it spilled into the river

In the previous example, the referent of the subject marker of line (b) is inanimate. It refers to *ngoḏí* ‘curdled milk’ mentioned at the end of the first line. The proposed function for the reflexive is that it indicates the affectedness of the referent of the subject marker, or (to put it another way) that the action of the clause is carried out on the referent of the subject marker. That is, the action of spilling is

carried out on the curdled milk. Since *ngoǰí* ‘curdled milk’ is inanimate, it would mean that something caused the milk to be spilled. Who/what caused the spilling is not given within the clause.

Similarly, in the next example, the referent of the subject marker is inanimate. It refers to *gēre* ‘farming’ which is one of the pre-subject noun phrases of the clause. Use of the reflexive marker means that the action of the clause (*hān* ‘do’) is carried out on the referent of the subject marker (*gēre* ‘farming’). Context indicates that the ones carrying out the action are the inhabitants of the town of Makary.

- (7) mpadə dó **gēre** má i hān **si** a lə wa
 Makary DET:F farming FOC NEUT:3PL do REFL PREP LOC NEG
Makary, farming wasn't even done there (beforehand)

In the following example, the same verb (*hān* ‘do’) is used, and the subject marker has an animate referent. This is a euphemism for making love to someone.

- (8) gáko dó ā hān **si** gó də
 front DET:F 3SG:M:CMPL do REFL with 3SG:F
Then he copulated with her
(lit. he did himself with her)

An idiomatic expression which conveys ‘what is happening’ also makes use of the reflexive marker. The verb used is always *gá* ‘put (a large countable quantity)’ and the subject marker always refers to an abstract thing (*nyi* (thing:ABSTR)).

- (9) i sán **nyi** [ro n-ō gá **si**]_{RC} wa
 NEUT:3PL know thing:ABSTR MOD:F 3SG:F-CMPL put REFL NEG
They didn't know what happened

The reflexive can also co-occur with the reciprocal marker in the same clause. This is seen in the next two examples. In this next example the reciprocal directly follows the reflexive marker. This is the typical position for the expression of location.

- (10) k'ani wo n-ō dē si maráǵə
 CONJ village 3SG:F-CMPL strike REFL RECIP
Then the village erupted (in fighting)
(i.e., the people of the village starting fighting each other)

In the next example, the reciprocal is the argument of a following preposition. The context of this example is the building of the road in Cameroon which runs east-west through the Kotoko area, between the cities of N'Djamena, Chad and Garoua, Nigeria. The road was started at both ends and then joined in the middle. The referent of the subject marker of clause containing the reflexive marker (line (b)) is the inanimate entity *tōlu* 'road', mentioned in the first line.

- (11) tōlu nda só m-á lū gí
 road DEM:M DET:M IRR-3SG:M come COMP
That road, it'll come (along) to
- (b) m-á ǰá si gē-i maráǵə dó ...
 IRR-3SG:M insert REFL mouth-NMOD:PL RECIP CONJ
be joined together ...

More details about the reciprocal marker are given below.

18.2 Reciprocal marker

Cross-linguistically, a common function assigned to reciprocal markers is to indicate “that an action or process is reciprocated by participants” (Matthews 1997:310). For Makary Kotoko the

function of the reciprocal marker varies depending on where it occurs in the clause. If it comes directly after the verb, it generally indicates that the referents of the subject marker mutually carry out the action of the clause upon each other – that is, it has a prototypical reciprocal function in such cases.² In most instances, the subject marker has a plural form, as in the next example. The noun phrase in pre-subject position is co-referential with the 3PL subject marker. The use of the reciprocal marker indicates that the action of ‘(not) knowing’ was mutually carried out by the referents of the subject marker on each other.

- (12) tíā do mēgə yó i són **marágo** wa
 olden.times DET:F people DET:PL NEUT:3PL know RECIP NEG
In olden times, people didn't know each other

The subject marker can be grammatically singular but it is always understood to have plural referents, as in the example below where the pre-subject noun phrase *alógā* ‘crowd’ is singular in grammatical number (as evidenced by the form of the co-referential subject marker which follows) but is understood to refer to a group of people.

- (13) alógā n-ō ka **marágo** dón
 crowd 3SG:F-CMPL find RECIP completely
A crowd gathered together

If the reciprocal marker follows the direct object (the position in which a locative argument generally occurs) it indicates that the action of the clause results in the referents of the direct object ‘being together’ in a way conveyed by the meaning of the verb. The direct object in such cases is generally plural, or understood as a plural entity, as below where the direct object is *séro* ‘sand’.

² Cf. Mahamat 2005:62 for a short comment on the reciprocal marker.

- (14) ndá-y do séró **maráǵə**
 INCMPL-3PL take sand RECIP
They would gather sand together

In the next example, the noun phrase in pre-subject position – the first line of the example – corresponds with the direct object of the clause. The reciprocal marker applies to the referent of the direct object. In combination with the meaning of the verb, the reciprocal indicates that things that cause diarrhea have been gathered together.

- (15) wa [n m-í dē gwá]_{RC} lāke yó
 thing:CONC:PL MOD:PL IRR-3PL throw cry each DET:PL
Each of the things that would cause diarrhea

- (b) n-ō ságə **maráǵə**
 3SG:F-CMPL pick RECIP
she grouped together

The reciprocal marker can follow locative complement taking verbs like *də* ‘go’, as shown in the next example. As described in section 17.3.1, there are four verbs of motion (*də* ‘go’ included) which require the expression of location as part of their argument structure. If no expression of location is given, then the locative particle *ni* is always used to fulfill the requirement. Interestingly, in the next example the only argument after the verb *də* ‘go’ is the reciprocal marker (end of line (b)). This suggests that the reciprocal marker fulfills the requirement of a locative complement for the verb. Also note in the next example that the subject is singular (the town of Makary) but it is understood by context that this refers to the inhabitants of the town.

- (16) ngō ro ē la rə lán
 place MOD:F 3PL:CMPL kill 3SG:M:DO IDEO
When they killed him

- (b) k'ani mpadə n-ō dō maráǵə
 CONJ Makary 3SG:F-CMPL go RECIP
then (the inhabitants of) Makary got together

The reciprocal marker can follow both the indirect object and the direct object. This is, again, the typical position for the expression of location. In such cases, the reciprocal marker indicates that the action of the clause results in the referents of the direct object ‘being together’ in a way conveyed by the meaning of the verb. In this particular case, it indicates that the referents of the subject marker clapped their hands together as a sign of respect for the sultan.

- (17) ē dá rə ʃáde maráǵə
 3PL:CMPL throw 3SG:M:IO hand:PL RECIP
They greeted him respectfully (by clapping their hands together)

The reciprocal also occurs as the object of different prepositions within the corpus. In these cases the function of the reciprocal marker is to indicate that the action of the clause results in the referents of the subject marker ‘being together’ in a way conveyed by both the meaning of the verb and the preposition. These prepositions are described in more detail in chapter 11. In this first example, the reciprocal is the object of the comitative preposition *gó* ‘with’. The addition of the prepositional phrase to the clause indicates that the referents of the subject marker carried out the action of the clause together.

- (18) ē hān skó sə kən gó **maráǵə**
 3PL:CMPL do field NMOD:M bean with RECIP
They planted a bean field together

In the following example the reciprocal marker is the object of the preposition *gə* and is followed by the locative particle *ho*. As described in section 11.2.2, this construction indicates that the situation described by the verb of the clause is oriented toward the referent of the object of the preposition. With the reciprocal marker as the object of the construction, the action of the clause is oriented (in a mutual fashion) toward the referent of the subject marker. In this particular case, it is understood as an indication of how the referents of the subject marker arranged themselves.

- (19) ē dā gə **maráǵə** ho
 3PL:CMPL put PREP RECIP L.P.
They lined up one behind the other

In this example the reciprocal marker is the object of the preposition *gól* and is followed by the locative particle *ho*. The reciprocal marker is the only object that occurs in this construction in the corpus. The prepositional phrase indicates that the referents of the subject marker were situated on top of each other.

- (20) aro m só gó-l **maráǵə** ho
 CONJ NEUT:1PL:INCL enter head-NMOD:F RECIP L.P.
Then let's climb on top of each other

Lastly, the reciprocal marker can also be the object of the preposition *gēi*. The context of this example is the same as for example (11) above. A road is being built, starting at the two ends and joining in the middle. In this case, the noun phrase in pre-subject position, the road, corresponds with

the direct object of the clause, and the prepositional phrase with the reciprocal marker as its object describes joining the two ends of the road together.

- (21) tōlu só ē i gē-i maráǵə
 road DET:M 3PL:CMPL snatch mouth-NMOD:PL RECIP
The road, they joined (it) together

18.3 Summary

In this chapter I have presented the functions of the reflexive and reciprocal markers of Makary Kotoko. I proposed that the most general function of the reflexive marker is to indicate the affectedness of the referent of the subject marker. I have shown that the animacy feature of that referent affects the interpretation of the reflexive marker. With an animate referent it is understood that the referent of the subject marker carries out the action of the clause on itself – the prototypical reflexive function. With an inanimate referent, that referent is affected by the action of the clause, but it may not be known who/what carried out the action. The function of the reciprocal marker is determined by its position within the clause. When it comes directly after the verb (with no understood direct object) it indicates that the referents of the subject marker mutually carry out the action of the clause upon each other – the prototypical reciprocal function. When it comes after the direct object, the reciprocal marker functions adverbially, indicating that the action of the clause results in the referents of the direct object ‘being together’ in a way conveyed by the meaning of the verb. The reciprocal marker can also be the object of a preposition in the clause. In such cases it indicates that the action of the clause results in the referents of the subject marker being together in a way conveyed by the meaning of the verb and the preposition.

19 Arguments of the verb phrase

In the corpus no more than four elements occur after the verb within the verb phrase: (i) the indirect object, (ii) the means/manner/reason marker *do* (MMR), (iii) the direct object, and (iv) the locative complement. On the rare occasions when all four occur, they (generally) appear in that order. It is of course possible for only one, two, or three to occur in the clause. How many occur depends on a number of factors, including the argument structure of the verb of the clause, whether any arguments occur in pre-subject position, etc. I discuss each of the four in turn, then finish with some other cases.

19.1 Indirect object

The first element after the verb (if present) can be realized as a noun phrase or a prepositional phrase. When it is realized as a noun phrase, it is often understood semantically as the benefactive/recipient of the situation described in the clause. When it is realized as a prepositional phrase (and is then followed by a direct object noun phrase) it is understood semantically as the malefactive (i.e., the action of the clause is done to the detriment of the referent of the object of the preposition). Since both types of arguments occur before the direct object (if present) I treat them together. I distinguish them by referring to the ‘indirect object noun phrase’ (generally expressing benefactive/recipient semantics) and the ‘indirect object prepositional phrase’ (expressing malefactive semantics). I address the benefactive/recipient cases first. The indirect object noun phrase can be realized nominally or pronominally. This has no bearing on the order of the indirect object relative to

other arguments of the clause. (I show further on that the pronominal/nominal realization of the direct object and location affects their ordering relative to each other.)

In this next example both the indirect object (bolded) and the direct object (which follows) are realized nominally. I have square bracketed and subscripted the indirect object (_{IO}) and direct object (_{DO}).

- (1) k'ani ā n-fó [**gāram** **n-gə-n** yó]_{IO} [ʃú]_{DO}
 CONJ 3SG:M:CMPL PL-give:APPL woman:PL MOD:PL-POSS-3SG:M DET:PL meat
Then he gave his wives some meat

In this next example the indirect object and direct object are realized pronominally. There is a noun phrase in pre-subject position which is co-referential with the direct object. Note the H tone on the 3PL pronoun which indicates that this argument functions as the direct object of the clause.

- (2) mēgə yó we fé [**n**]_{IO} [dán]_{DO}
 people DET:PL NEUT:2PL call 1SG:IO 3PL:DO
Call the people for me

The indirect object is pronominal, and the direct object is nominal in the next example.

- (3) dágā [**n**]_{IO} [hó ró-m]_{DO}
 IMP:2SG:show 1SG:IO house MOD:F-POSS:2SG:F
Show me your home

The indirect object occurs with a prepositional verb in the next example. As discussed in section 17.5, prepositional verbs require the preposition *gə* before its object. Note that the indirect object precedes the prepositional phrase.

- (4) we yá [mo]_{IO} gə plá
 NEUT:2PL want 1PL:INCL:IO PREP butter
Get us some butter

In the next example, there is no direct object for the clause in line (b). The logical object of the verb is the copula complement of the comitative copula construction which occurs in the first line of the example. The indirect object is realized nominally in line (b). If this line were analyzed independent of the preceding clause, one could understand that Death's mother was being killed as a sacrifice. This example brings out how important it is in many cases to consider the larger context (in this case the preceding clause, in other cases a much larger portion of the discourse) to determine the function of arguments within the clause. That is, in the case of the noun phrase following the verb *la* 'kill', the function of this argument within the clause is not coded grammatically, but is determined pragmatically.

- (5) [madí da]_{CS} gó [hóngwó ro-gá-də]_{CC}
 death CONTR with goat MOD:F-POSS-3SG:F
Death had a goat

- (b) gí yá-y la [yá ro-gó-dan]_{IO} do sārga
 COMP VOL-3PL kill mother MOD:F-POSS-3PL as sacrifice
that they were going to kill as a sacrifice in honor of Death's mother

As discussed in section 25.2.1, if the indirect object is placed in pre-subject position, there is consistently a resumptive pronoun in the canonical position (i.e., after the verb). I have bolded the pre-subject noun phrase and the resumptive pronoun in the canonical position in the next example.

- (6) **mēgə** n si yó i gə [**dan**]_{IO} gí ...
 people MOD:PL NONSPEC:PL DET:PL NEUT:3PL say 3PL:IO COMP
They told the other people that ...

If a malefactive notion (i.e., the situation of the clause occurs to the detriment of someone) is to be expressed regarding the referent of an argument of the clause, the preposition *gə* introduces that argument. Also, the prepositional phrase occurs in the same position (immediately after the verb) that the indirect object noun phrase occurs in. If the argument is realized pronominally, the prepositional pronominal forms are used. This paradigm is given in Appendix C. The prepositional argument is bolded and I have square bracketed and subscripted the indirect object prepositional phrase (_{IO}) and the direct object (_{DO}).

- (7) **ɕi** ró da n-ō gá [**g-u**]_{IO}
 thing:CONC DEM:F CONTR 3SG:F-CMPL finish PREP-1SG
Was it this thing that finished off

- (b) [lé n-g-u gó gərəm ro-g-u]_{DO} wo
 child:PL MODPL-POSS-1SG with woman MODF-POSS-1SG POL
my children and my wife on me?

In this next example the malefactive indirect object is realized nominally.

- (8) maŋi ā i [**gə sətá só**]_{IO} [nówó]_{DO} gí ...
 hyena 3SG:M:CMPL snatch PREP leopard DET:M finger COMP
hyena pointed his finger at leopard, saying ...

If there is a pre-subject noun phrase that is co-referential to the malefactive argument, there is consistently a resumptive pronoun in the canonical position (directly after the verb). I have bolded the pre-subject noun phrase in the next example as well.

- (9) **dúmū** **n** **nda** **te** **só** **dā** **ní** **nām** [**gə-n**]_{IO} [**ēni**]_{DO}
 bull MOD:M DEM:M DIST DET:M IMP:2G:go L.P. extract PREP-3SG:M milk
The bull (over) there, go and milk him

19.2 Means/manner/reason marker *do* (MMR)

Following the indirect object (if any) is the marker *do* (if present). The proposed function of this marker is to indicate that a previously mentioned element is the means, manner, or reason for the situation described in the clause in which it occurs. Whether means or manner or reason is to be understood is determined by the nature of the previously mentioned element, the meaning of the verb of the clause, the arguments of the clause, and the larger context. I provide evidence for the proposed function of the marker *do* below, walking through examples where *do* conveys the means, manner, or reason of the clause in question.

This first example illustrates that *do* follows the indirect object and precedes the direct object (cf. line (b)). To understand how the marker *do* functions, it is important to be aware of the preceding context. In this story, the wife of the king of the birds has asked him to build her a nest of feathers instead of grass. He calls together all the birds of the kingdom to have them deplumed. One of the birds successfully turns the king from his project. The birds take to flight and leave behind enough feathers for the feather nest to be built for the queen. The marker *do* (bolded) occurs in the second clause of line (b). It indicates that a previously mentioned element (in this case, the feathers) is the means, manner or reason (in this case, the *means*) for the situation described in the clause in which *do* occurs (in this case, the building of a nest for the wife of the king of the birds). That is, the feathers were used to build the

nest for the king's wife. (In line (b) there are two 3PL:CMPL subject pronouns. The first is co-referential with the feathers mentioned in the first line. The second is a reference to the builders of the nest.)

(10) gáko dó **fáskē** [n ē n-k'ó tón]_{RC} yó
 front DET:F feathers MOD:PL 3PL:CMPL PL-fall ground DET:PL
Then, the feathers that fell to the ground

(b) ē bōro ē gá [də]_{IO} **do** [fən]_{DO} he
 3PL:CMPL be.enough 3PL:CMPL build 3SG:F:IO MMR hut L.P.
were enough. They built her a nest with them.

Line (b) of this past example is one of the few instances in the corpus where all four possible arguments of the verb phrase are expressed together. I justify in section 16.1 that the function of locative particles is the expression of spatial orientation within the clause.

This next example also illustrates the use of *do* to indicate that a previously mentioned element is the *means* for the situation of the clause in which *do* occurs. The context of this example is that a traditional wrestling champion claims to have some special potions that he uses to win his matches. The potions (lit. trees) (bolded) are mentioned in the first line. A pronominal reference to them is made again at the beginning of line (c). It occurs in pre-subject position and is marked with the contrastive focus marker *da*. The marker *do* occurs before the direct object of that clause. It indicates that a previously mentioned element (in this case, the potions) is the means for the situation described in the clause in which *do* occurs (in this case, the winning of traditional wrestling matches). That is, the wrestler uses the potions to win his matches.

- (11) **sí-e n-g-u nde yó don ndá-w d̄ō ní**
 tree-PL MOD:PL-POSS-1SG DEM:PL DET:PL 1SG:IND INCMPL-1SG go L.P.

Those potions of mine, I'm going

- (b) **kanía tá-we tá ho wa**
 therefore PROH-2PL touch L.P. NEG

therefore, don't touch (them)

- (c) **gí d̄én da ndá-w n-dé do [m̄ēgə]_{DO} he**
 COMP 3PL:IND CONTR INCMPL-1SG PL-trip MMR people L.P.

because it's by them that I win my wrestling matches

This next example illustrates the use of the marker *do* (along with context) to indicate that a previously mentioned element is the *manner* in which the situation (of the clause in which *do* occurs) was carried out. The marker *do* occurs in a relative clause in the first line. The head noun of that clause is *nyi* (thing:ABSTR). In this next story, a mother has come to visit her daughter in a village where the people only sleep on posts. She assures them that she can sleep that way as well. Through the use of the marker *do*, it is understood that the head noun of the relative clause (in this case, *nyi* (thing:ABSTR)) refers to the manner in which the people sleep (i.e., on posts).

- (12) **nyi [ro wre ndá-we d̄ā do he]_{RC} dó**
 thing:ABSTR MOD:F 2PL:IND INCMPL-2PL lie.down MMR L.P. DET:F

The way that you lie down

- (b) **don d̄amá m-ú b̄ōro lə ga yó**
 1SG:IND ADVERS IRR-1SG be.enough PRO mouth DET:PL

I'll also be able to do it

This next example also illustrates the use of the marker *do* (along with context) to indicate that a previously mentioned element is the *manner* in which the situation of the clause in which *do* occurs

was carried out. This example also demonstrates that *do* (MMR) is distinct in function (though not in form) from the preposition *do* ‘as’, which also occurs in the example (in the first line). While the marker *do* (MMR) occurs within the verb phrase, the preposition *do* (with its object (*kálēw* ‘dog’)) lies outside the verb phrase. This is evidenced by the fact that while *do* (MMR) precedes the locative particle *he* in example (12) above, the preposition *do* ‘as’ follows it (as seen in example (13) below).

The marker *do* (MMR) occurs in a relative clause in line (b). The head noun of that clause is again *nyi* (thing:ABSTR). In this story a man, who can turn himself into a dog, visits another man, but the second man doesn’t recognize him because the first time they met the first man was a dog. So he decides to turn himself back into a dog, like the way he was during his last visit. In this example, the marker *do* (MMR) indicates that the referent of a previously mentioned element (in this case, *nyi* (thing:ABSTR)) is the manner in which the man came beforehand (i.e., in the form of a dog).

(13) m-ú fǎ si he do kálēw
 IRR-1SG change REFL L.P. as dog
I’ll turn myself into a dog

(b) gara **nyi** **ro-g-u** [ro w-ō lū **do**]_{RC} dó
 like thing:ABSTR MOD:F-POSS-1SG MOD:F 1SG-CMPL come MMR DET:F
like how I was when I came (before),

(c) kanía kadó n
 therefore IMP:2SG:follow 1SG:DO
therefore follow me

This next example illustrates the use of the marker *do* (along with context) to indicate that a previously mentioned element is the *reason* for the situation of the clause in which *do* occurs. The marker *do* occurs in line (c) in the interrogative clause. In this story, a nephew comes to visit his uncle because he's having trouble in life. His uncle wants to know why he's having trouble in life. Through the use of the marker *do*, it is understood that the referent of the questioned element (*nyi* (thing:ABSTR)) which occurs in pre-subject position is the reason why the nephew is having trouble in life.¹ Note that when manner and reason are understood with the use of the marker *do*, the term *nyi* (thing:ABSTR) is frequently the previously mentioned element.

(14) **A:** abáná u ĩn gə dunía só
 uncle NEUT:1SG hear PREP world DET:M
Uncle, I feel like the world

(b) **A:** a ká yo gó n nía
 NEUT:3SG:M suffer L.P. with 1SG INTENS
has turned against me.

(c) **B:** **nyi** le a ká **do** yo gó kən
 thing:ABSTR what NEUT:3SG:M suffer MMR L.P. with 2SG:M
Why has it turned against you?

As noted in section 23.2.3, another way to question means, manner or reason is through the interrogative expression *la he* (MMR what). In these cases the marker *do* does not occur since the term *la* already codes means/manner/reason.

¹ Note that the element in pre-subject position (*nyi le* (thing:ABSTR what)) is not co-referential with the subject marker. The subject marker is coded for masculine gender (referring to *dunía* 'world' in the first line) while *nyi* is feminine in gender.

19.3 Direct object

The third possible element after the verb is the direct object. It can be realized as a noun phrase or a prepositional phrase. It is only realized as a prepositional phrase for the dozen or so prepositional verbs (described in section 17.5). As a noun phrase, the direct object can be realized nominally or pronominally. In the following example, the direct object is realized nominally.

- (15) ló 1 kóró dó n-ō sē [ēni]_{DO}
 child NMOD:F donkey DET:F 3SG:F-CMPL drink milk
Today, I'm going to kill you

Semantically, the direct object prototypically expresses the element that undergoes the situation/action/event described in the clause (i.e., patient). This can be seen, for instance, in examples (1) and (2) above, and in the following example where the direct object is realized pronominally. Note the H tone on the 2SG:F pronoun, indicating that it is the direct object of the clause.

- (16) a-sé-ró m-ú la [tó]_{DO}
 PREP-day-DEM:F IRR-1SG kill 2SG:F:DO
Today, I'm going to kill you

The direct object follows both the indirect object and the means/manner/reason marker *do* when either of these is present. Examples (1) and (2) show the direct object following the indirect object. Examples (10) and (11) show the direct object following the marker *do*. The direct object always precedes the expression of location unless (i) the location is expressed pronominally, and (ii) the direct object is expressed nominally. The next example contains an indirect object (pronominally realized), direct object (realized nominally) and a indication of location (also realized nominally). I have square bracketed and

subscripted the indirect object (_{IO}), the (bolded) direct object (_{DO}) and location (_{LOC}). Evidence that the 2SG:M pronoun is indeed the indirect object comes from its tonal realization. Were it the direct object, the pronoun would have H tone.

- (17) m-ú ɓa [kən]_{IO} [**fáde**]_{DO} [bələm]_{LOC}
 IRR-1SG tie 2SG:M:IO hand:PL back
I'll tie you(r) hands (behind your) back

The next example contains a pre-subject noun phrase (bolded, in the first line) which is co-referential with the pronominal realization of the location (*lə* (PRO), bolded) in the verb phrase. The direct object is realized nominally (*hó* 'house', bolded). As noted above, when the location is expressed pronominally and the direct object is expressed nominally, then the expression of location precedes the direct object, as shown in line (b).

- (18) ā fé re gí **dabú** ro-gə sámē gó tón da
 3SG:M:CMPL call 2PL:DO COMP middle MOD:F-POSS sky with ground CONTR
He called you because, between heaven and earth,

- (b) yá-we gá [rə]_{IO} [**lə**]_{LOC} [**hó**]_{DO} wá
 VOL-2PL put 3SG:M:IO PRO house TAG
you're going to build him a home there, eh?

19.4 Location

The expression of location (when present) is the fourth and final possible element in the verb phrase. It can be realized with a noun phrase, a prepositional phrase or by one of the four locative particles (described in chapter 16). Example (17) above showed a nominal realization of location.

Example (18) above illustrated a pronominal realization of location. The end of line (b) of example (10) above illustrates the use of a locative particle to express locative information. Location expressed by a prepositional phrase is shown below. I have square bracketed and subscripted the direct object (_{DO}) and the (bolded) location (_{LOC}).

- (19) ē dē [ensá]_{DO} [gó-l mts'afú ro-gə āhe só]_{LOC}
 3PL:CMPL put foot head-NMOD:F tail MOD:F-POSS snake DET:M
He stepped on the snake's tail (lit. he put foot head of tail ...)

In chapter 11, I describe the prepositions and locative specifiers of Makary Kotoko. The preposition *gə* can occur before its object with the locative particles *he* or *ho* after the object. This spatially positions the object of the preposition relative to the situation described in the clause. In the next example, the prepositional phrase is the locative complement of the verb *dē* 'go'.

- (20) ā dē [gə yá ro-gə-dan dó ho]_{LOC}
 3SG:M:CMPL go PREP mother MOD:F-POSS-3PL DET:F L.P.
He went to (see) his mother

As noted in the discussion of the direct object above, if the direct object is realized nominally and the location is realized pronominally, then the location precedes the direct object. This also holds true when the location is realized with a prepositional phrase, as shown below. In this case, since the prepositional phrase is composed of the preposition *gə* before its pronominal object and the locative particle *ho* afterward, the direct object follows the pronoun but precedes the locative particle. As such the expression of the direct object is realized within the prepositional phrase expressing the location. I

convey this with square brackets and subscripting below. This example can be compared to the similar example (19) above where both the direct object and the object of the preposition (expressing location) are realized nominally. In that case, the direct object precedes the expression of location.

- (21) m-á n-dó [**gə-ne** [ensé]_{DO} **ho**]_{LOC}
 IRR-3SG:M PL-put PREP foot:PL L.P.
He'll step all over us (lit. he put repeatedly on us foot)

With the locative specifiers *gó-l* (head-NMOD:F) and *gē-i* (mouth-NMOD:PL), when the object of the locative specifier is realized pronominally and the direct object is realized nominally, the resulting structure is quite complex, as shown in the next example. This example can be usefully compared with example (19) above. Both are taken from the same text. In example (19), the location is realized as a prepositional phrase beginning with *gó-l*. In the following example, the noun phrase in pre-subject position (square bracketed, bolded, and subscripted ₂) corresponds with the object of the locative specifier. There is a resumptive pronoun after the verb, but since the direct object is realized nominally (*ensé* 'foot'), the pronoun referring to the location (*lə*) precedes the direct object. Additionally, there is a second pronominal reference to location after the direct object, which is followed by the locative specifier in its nominal form (*gó dó* head DET:F). As in the previous example, the direct object occurs within the expression of location.

- (22) [don só]₁ [**mts'afú** ro-g-u **dó**]₂
 1SG:IND DET:M tail MOD:F-POSS-1SG DET:F
Me, my tail,

- (b) tá-y d̄ɔ̄ [l̄ə [ens̄ɔ́]_{DO} l̄ə **gó** **dó**]_{LOC} wa
 PROH-3PL put PRO foot PRO head DET:F NEG
don't step on it

The pronoun *l̄ə* (PRO) appears twice to satisfy two separate constraints in the language. First, the pronominal realization of location and the nominal realization of the direct object accounts for the occurrence of *l̄ə* before *ens̄ɔ́* ‘foot’. Second, the pronominal realization of location results in the nominal form of the locative specifier (*gó dó* instead of *gó-l̄ə*). As noted in section 11.3, no intervening material may occur between the pronoun *l̄ə* and the nominal form of the locative specifier, so the pronoun *l̄ə* occurs a second time before the nominal form of the locative specifier.

This is a complex structure and worth a second example – this time with the other locative specifier *gē-i* (mouth-NMOD:PL). Its nominal form is *ga yó* (mouth DET:PL). The (bolded) noun phrase in pre-subject position corresponds with the object of the locative specifier in the clause. There is a resumptive pronoun (*l̄ə*) after the verb, but before the nominally realized direct object (*eníé* ‘spit’). There is a second occurrence of the pronoun *l̄ə* before the nominal form of the locative specifier.

- (23) k'ani **lówó** **ro-gó-də** **dó**
 clay.jar MOD:F-POSS-3SG:F DET:F
Then, her clay jar

- (b) ā ʃí [l̄ə [eníé]_{DO} l̄ə **ga** **yó**]_{LOC}
 3SG:M:CMPL pour PRO spit PRO head DET:PL
he spit into it

If the object of the preposition *gə* is in pre-subject position, and its referent is non-human, then there is generally no resumptive pronoun after the preposition. As such, the preposition will have its ‘intransitive’ form *gó* (described in section 11.2.1). If a direct object is nominally realized in such clauses, it follows the preposition just as it would if the location was expressed pronominally. This is illustrated in the following example. I have bolded the noun phrase in pre-subject position.

- (24) **enfé** **n-gó-də** **yó** ā dā [gó]_{LOC} [fú]_{DO} k'ani ...
 bone:PL MOD:PL-POSS-3SG:F DET:PL 3SG:M:CMPL put PREP fire CONJ
Her bones, he lit (them) on fire, then ...

In the preceding example the intransitive form of the preposition *gə* is formally identical to the comitative preposition *gó* ‘with’. To confirm that this is not, in fact, the comitative preposition, it is possible to place the pre-subject noun phrase in its canonical position, as in the following elicited example. Since both the direct object and the expression of location are realized nominally, the direct object precedes the location (and the preposition *gə* has its transitive form).

- (25) ā dā [fú]_{DO} [gə **enfé** **n-gó-də** **yó**]_{LOC}
 3SG:M:CMPL put fire PREP bone:PL MOD:PL-POSS-3SG:F DET:PL
He lit her bones on fire (lit. he put fire at her bones)

In talking about the indirect object earlier, I distinguished between an indirect object noun phrase (generally expressing benefactive/recipient semantics) and an indirect object prepositional phrase (expressing malefactive semantics (cf. examples (7)-(9))). In light of the discussion just above that the location can be realized with a prepositional phrase, and that the location precedes the direct object

when the former is realized pronominally, and the latter, nominally, it would be possible to analyze (most of) the ‘malefactive’ cases as expressions of location. One exception to that would be example (8) above (repeated as (26) below). In this example the object of the preposition is nominal (as is the direct object). At such, by the rules established above, if the prepositional argument is the expression of location it should not precede the nominally realized direct object.

- (26) maʃi ā i [gə sətə só]_{IO} [nowo]_{DO} gí ...
 hyena 3SG:M:CMPL snatch PREP leopard DET:M finger COMP
hyena pointed his finger at leopard, saying ...

19.5 Other cases

I have indicated that the indirect object (if present) precedes the direct object (if present) which precedes the expression of location (if present). Having established the relative order of the elements in the verb phrase, consider now a few more examples which show how this relative ordering is used in the language. In this next example there are three arguments after the verb. By the analysis given above, the first argument would correspond with the indirect object (pronominally realized), the second with the direct object (nominally realized), and the third with the location (nominally realized). The literal meaning of the example is ‘you put me hand heart’ which is an idiomatic expression used to convey that the referent of the subject has caused the referent of the indirect object emotional distress.

- (27) íya wē dē [n]_{IO} [ʃé]_{DO} [ərfu]_{LOC} dəgə
 mom 2PL:CMPL put 1SG:IO hand heart INTENS
Mom, you’ve really hurt me psychologically
(lit. you put me hand heart)

This next example described a bird plucking a woman's eye out. Reference to the woman is pronominal and comes first. The beak of the bird (*ga* 'mouth') comes second, followed by the reference to the woman's eye (*sə* 'eye'). Note how differently the grammatical relations and the semantic roles are realized relative to the English translation. In English, the beak is treated as an oblique argument, expressing the instrument. In Makary Kotoko, it comes in second position as the grammatical direct object. The eye in English is the direct object. In Makary Kotoko it is in third position as the location of the plucking. The reference to the woman is expressed as the possessor of the eye in English. In Makary Kotoko, the reference to the woman is the first argument in the verb phrase - as the indirect object.

- (28) k'ani dan de ā dá [də]_{IO} [ga]_{DO} [sə]_{LOC}
 CONJ 3SG:M:IND S.R. 3SG:M:CMPL pluck 3SG:F:IO mouth eye
Then he plucked her eye out with his beak

Similarly, the next example describes someone being hit on the mouth with a stick. The person being hit occurs first, as the indirect object, the stick being used to hit the person occurs second, as the direct object, and where the person was hit (on the mouth) occurs third, as the location.

- (29) k'ani ē kó [rə]_{IO} [sāw]_{DO} [ge n-gə-n yó]_{LOC}
 CONJ 3PL:CMPL hit 3SG:M:IO stick mouth MOD:PL-POSS-3SG:M DET:PL
Then they hit him with a stick on his mouth

19.6 Summary

In this chapter I have presented the arguments of the verb phrase, the order in which they occur relative to each other, and their functions within the clause. The first possible element after the verb is

the indirect object. Pronominally this is distinguished from the direct object by its tonal realization for certain persons of the paradigm. I proposed that the indirect object can be realized as a noun phrase (in which case it generally conveys benefactive/recipient semantics) or as a prepositional phrase (conveying malefactive semantics). The second element in the verb phrase (if present) is the means/manner/reason marker *do*. Its function is to indicate that a previously mentioned or understood entity is the means/manner/reason of the clause in which it occurs. Whether means or manner or reason is understood is determined by context. The third possible element after the verb is the direct object. It can be realized as a noun phrase or a prepositional phrase (for the class of prepositional verbs).

Semantically, it generally expresses the entity that undergoes the action of the clause, though we saw in the past section that it can also express the instrument used to carry out the action of the clause. The fourth and final element (if present) is the expression of location. It was shown that if the location is realized pronominally and the direct object was realized nominally, then the expression of location precedes the direct object. The location can be realized as a noun phrase, a prepositional phrase, or with one of the locative particles. If the location is realized as a prepositional phrase (or with one of the locative specifiers), and the object of the preposition (or locative specifier) is realized pronominally while the direct object is realized nominally, it was shown that the direct object occurs within the complex expression of location.

20 Comparison

In this chapter, I present how Makary Kotoko expresses comparative relations of equality, superiority, and inferiority. I make use of the terminology developed briefly in Dixon (2010a:177-179). The element which is being compared to another element with respect to some property or quality is called the COMPAREE. What the COMPAREE is being compared to is referred to as the STANDARD. The property or quality is called the PARAMETER. The type of comparative relation (i.e., equality, superiority, or inferiority) is given by the INDEX. In Makary Kotoko the INDEX is expressed by verbs which also function in non-comparative contexts. I illustrate this at the end of each section.

20.1 Equality

In the following example, towns around Makary are being compared to it with respect to size. The COMPAREE is both the subject of the matrix clause and the relative clause – which contains the comparative construction. The INDEX is the intransitive verb of the relative clause, *ʃim* ‘be equal’. The STANDARD, the town of Makary, is introduced with the comitative preposition, and the PARAMETER is introduced by the preposition *gə*. The components of the comparative construction are given in the third line of the interlinearization.

(1)	wo	[ro	əl	ʃim	gó	mpadə	gə	dəmo-són] _{RC}	dó
	village	MOD:F	NEUT:3SG:F	be.equal	with	Makary	PREP	big-NOM	DET:F
			COMPAREE	INDEX		STANDARD		PARAMETER	

A village that is equal in size with Makary

(b)	əl	dálá
	NEUT:3SG:F	not.exist
		<i>doesn't exist</i>

- (4) aro **séló sə fǎskē dúbú só**
 CONJ bird NMOD:M feathers thousand DET:M
 PARAMETER

A bird with a thousand feathers,

- (b) [séló [n a fǎra tó]_{RC}CS nda [lǎ]_{CC} wo
 bird MOD:M NEUT:3SG:M surpass 2SG:F:DO be.at:M PRO POL
 COMPAREE INDEX STANDARD

does a bird that surpasses you (in that regard) exist?

In this next example the comparative construction is illustrated in line (b). The COMPAREE is the subject of the clause and the STANDARD is the direct object of the verb. The PARAMETER is not expressed, but is understood by context. In this story, Satan, after roaming on earth for a while, is about to return to his abode when an old lady tries to convince him to stay. He offers three adages about the vulture to explain why he must leave. Each adage contains the comparative construction of superiority. The example below is one of them.

- (5) blō [n ā sā tón nda sā ts'e
 man MOD:M 3SG:M:PRF sit ground IMPRF:3SG:M sit outside
The man who defecates

- (b) aro a tágə wa]_{RC} de dǎ əl fǎra rə
 CONJ NEUT:3SG:M eat thing:CONC:PL S.R. 3SG:F:IND NEUT:3SG:F surpass 3SG:M:DO
 COMPAREE INDEX STANDARD
as he eats, she (the vulture) is better than him

The use of this verb is not limited to a comparative context as illustrated in the next example.

- (6) ngō ro fǎrgū dǎ yá-l fǎra rə
 place MOD:F sickness DET:F VOL-3SG:M surpass 3SG:M:DO
When the sickness was about to overcome him,

- (b) k'ani yá ro-gə en lo só dó
 CONJ mother MOD:F-POSS 3PL child DET:M DET:F
the mother₂ of (his₁) son (i.e., his wife),

- (c) ā dó dǎ a fən só
 3SG:M:PRF chase 3SG:F:DO PREP room DET:M
he₁ sent her₂ from the room

20.3 Inferiority

For the comparative relation of inferiority, Makary Kotoko makes use of the verb *gádǎ* ‘lack’ as the INDEX. Used in the comparative construction, the verb takes a prepositional argument (introduced by the preposition *gə*) and is tonally realized *gādǎ*. The COMPAREE is the subject of the clause and the STANDARD is the object of the preposition *gə*. In this next example, the PARAMETER is referred to in the preceding clause with the mention of the size term *kabókó* ‘short’. In this example the object of the verb *ká* ‘hold’ is the handle of a hoe which represents farming.

- (7) g-ō ká dǎ kəskê aro mǎ-l hən kón **kabókó**
 2SG-PRF hold 3SG:F:DO near CONJ IRR-3SG:F do 2SG:M:DO short
 PARAMETER

If you treat it lightly then it'll make you short

- (b) gə gādǎ gǎ-dǎ k'ó
 NEUT:2SG lack PREP-3SG:F again
 COMPAREE INDEX STANDARD
you'll be less than it (in size)

In this next example the comparative construction is illustrated in line (b). The COMPAREE is the subject of the clause and the STANDARD is the object of the preposition *gə*. The PARAMETER is supplied by context.

- (8) [yayá gó katána]_{VCS} [mēywe]_{VCC} gó ló l gārame
 older.sibling with younger.sibling males with child NMOD:F woman:PL
The older sibling and the younger sibling were men, with a girl

- (b) dǎ de əl gādō gó-dan
 3SG:F:IND S.R. NEUT:3SG:F lack PREP-3PL
 COMPAREE INDEX STANDARD
but she was younger than them

This same verb can be used intransitively in non-comparative contexts. The corpus contains no examples of this though this function came up in elicitation sessions.

- (9) imánā əl gádō
 faith NEUT:3SG:F lack
Faith is lacking

20.4 Summary

In this chapter I have briefly presented comparative constructions in Makary Kotoko making use of the terminology proposed by Dixon (2010a:177-179). The COMPAREE consistently corresponds with the referent of the subject marker of the clause. The STANDARD is frequently expressed by an object of the clause (either the direct object or the object of a preposition). The PARAMETER can be introduced by a preposition or be derived from context. The INDEX is consistently given by a verb indicating which comparative relation is involved: equality, superiority, or inferiority.

21 Non-verbal predication

In this chapter I discuss the different non-verbal predications in Makary Kotoko. I define non-verbal predication as those clauses which express a proposition without the presence of the subject marker or verb. The semantic notions typically expressed by these non-verbal predications are identity, attribution, possession, location, and existence. There are four primary non-verbal constructions in the language that I discuss in turn. I give a name to each for ease of reference. The first is the juxtaposition construction where two noun phrases are placed side by side (**NP NP**). The second is the presentational copula construction where two noun phrases have an intervening marker between them (**NP *ndó* NP**). The third is the comitative copula construction where two noun phrases have the comitative preposition intervening (**NP *gó* NP**). The fourth is the locative copula construction where the copula codes the gender/number of the referent of its subject. The copula is followed by an obligatory reference to a location (realized by either a noun phrase or a prepositional phrase) (**NP *nda* LOC**). There is also a complex construction which combines the comitative copula construction and the locative copula construction with the noun phrase between the copulas being a component of both simple constructions (**NP *gó* NP *nda* LOC**). I finish with some minor non-verbal construction types.

21.1 Juxtaposition construction (NP NP)

Makary Kotoko can place two noun phrases side by side to form a complete proposition. The function of juxtaposing the two noun phrases in this way is to express a

example, evidence that the verbless clause complement *nehíse* ‘obstinate’ is an adjective is that, while it can be coded for number (a property of both nouns and adjectives), it does not have gender (a property of nouns alone).

Verbless clause complement is an adjective

- (3) [le n a wo d́o yó]_{VCS} [nehíse]_{VCC}
 child:PL MOD:PL PREP village DET:F DET:PL obstinate:PL
The children in the village are obstinate

Verbless clause complement is a quantifier

- (4) [amsó n-gə-n]_{VCS} [kádáǵó]_{VCC}
 word MOD:M-POSS-3SG:M a.lot
He talks a lot (lit. his words a lot)

The juxtaposition construction is one of the means used to convey the name of someone, as in the following example.

- (5) [jímū n-gó-də]_{VCS} [Marangábi]_{VCC}
 name MOD:M-POSS-3SG:F Marangabi
Her name is/was Marangabi

Recognizing a juxtaposition construction helps explain what would otherwise be an anomaly in the grammar of the language. Consider the following example. In line (b) of this example the modifying marker (*n* (MOD:M)) is followed by a noun phrase. As described in section 6.1, the modifying marker can only be followed by certain non-noun modifiers (e.g. possessive determiners, non-specific marker, prepositional phrases, relative clauses). If a noun (phrase) modifies another noun (phrase), then a different marker is used (as described in section 6.2). Why then is the modifying marker followed by a noun phrase in this example? The

question can be answered by recognizing that the modifying marker introduces a relative clause (noted by square brackets and subscripting). The head of the relative clause (*sabâ* ‘friend’) is also the subject of the relative clause. The relative clause is an instance of the juxtaposition construction, and since the head is given outside the relative clause, it is not given again within the relative clause, and therefore the only component of the juxtaposition construction that is left is the verbless clause complement (marked as such).

(6) \bar{e} ka g \bar{e} -i ho ro-g \bar{e} sabâ
 3PL-CMPL find mouth-NMOD:PL house MOD:F-POSS friend
They came to the house of his friend

(b) n-g \bar{e} -n [n [b \bar{a} rba s \bar{e} f \bar{a} - \bar{e} s \bar{o}]_{VCC}]_{RC}
 MOD:M-POSS-3SG:M MOD:M rich.man NMOD:M year-PL DET:M
who was a rich man (of ‘old money’ wealth)

This analysis can also be extended to the next example where a noun phrase is the only component of the complement clause of the verb of saying. It would be possible to identify the noun phrase as a verbless clause complement (marked as such) whose subject is unexpressed since it is also the subject of the matrix clause.

(7) k \bar{o} n g \bar{e} g \bar{e} g \bar{i} [mal \bar{e} m]_{VCC} d \bar{o} ...
 2SG:M:IND NEUT:2SG:M say COMP Koranic.teacher CONJ
You say (you’re) a teacher ...

21.2 Presentational copula construction (NP *ndó* NP)

Another non-verbal predication in Makary Kotoko places a marker (*ndó* (PRES)) between two noun phrases. I call the marker a ‘presentational’ copula because it can also be

used with only a noun phrase following in order to introduce the referent of that noun phrase into the discourse. Consider the following example where the presentational copula construction is the complement of the verb *sən* ‘know’. I label the noun phrase before the copula (placed in square brackets) the Copula Subject (_{CS}) and the noun phrase after the copula the Copula Complement (_{CC}).

- (8) *ā* *sən* *gí* [*mā* *dó*]_{CS} *ndó* [*māwda*]_{CC}
 3SG:M:CMPL know COMP woman DET:F PRES monster
He knew that the woman was a monster

The function of the presentational copula construction seems very similar to that of the juxtaposition construction - expressing a relationship of identity between the referents of the two noun phrases. One difference between the two is that the copula complement in the presentational copula construction is only ever a noun phrase in the corpus. In the next example, the copula subject is a pair of conjoined noun phrases.

- (9) [*sətó* *gó* *fli* *yó*]_{CS} *ndó* [*mēy* *wáādo*]_{CC}
 leopard with monkey DET:PL PRES people.of trust
Leopard and monkey were friends

This next example contains an instance of the juxtaposition construction for the first clause, and the presentational copula construction for the second.

- (10) [*katána* *só*]_{VCS} [*gómnárū* [*n* *a* *sáfi*]_{RC}]_{VCC}
 younger.brother DET:M young.man MOD:M NEUT:3SG:M be.good.looking
The younger brother was a good looking young man

- (b) [yayá só]_{CS} ndó [malêṁ]_{CC}
 older.brother DET:M PRES teacher
the older brother was a teacher

The presentational copula *ndó* can also be used with no preceding noun phrase (*ndó NP*). In a number of cases there is nevertheless an understood (or ‘logical’) subject of the presentational marker, based on the context. This is illustrated in the next example. The context of the example is that a hyena has hidden from a lion in a cave-like hole in the ground. The lion has taken a clay jar and placed it at the entrance to the hole, but the hyena thinks it is the lion lying at the entrance. The hyena waits in the hole for quite some time hoping the lion will leave, but finally hunger sets in and he decides to rush the entrance and try to escape. That’s when he realizes that it wasn’t the lion blocking the entrance but a clay jar.

- (11) ā bō ts'e k'ani ndó lówó
 3SG:M:CMPL pierce outside CONJ PRES clay.jar
He ran outside (of the hole) and it was a clay water jar

The presentational marker can occur before a pre-subject noun phrase as a way of introducing the referent of that noun phrase into the discourse (the functions of placing a noun phrase in the pre-subject position are described in chapter 26). In this next example, the speaker meets up with a handicapped man who asks the speaker to give him a bath. In the course of his reply he brings God into the conversation. The presentational marker occurs in line (b) before the pre-subject noun phrase, which is marked with the contrastive focus marker *da*, and is co-referential with the subject marker of the clause.

- (12) u mban kón kál wá
 NEUT:1SG bathe 2SG:M:DO just TAG
I'll give you bath, eh?

- (b) **ndó** **kəmani** **da** ā dɔ̃ ngó wá
 PRES god CONTR 3SG:M:CMPL put PREP:2SG:M TAG
It's God that put (this handicap) on you, right?

The presentational marker is also used in interrogative contexts to introduce the noun phrase referring to the questioned referent. In this next example, *ndó* introduces a pre-subject noun phrase marked with the interrogative marker. The pre-subject noun phrase corresponds with the object of the comitative preposition (in line (b)). Since this is a transitive preposition, there is a resumptive pronoun in the canonical position (after the preposition).

- (13) iyo əl mbîn aro **ndó** **nyi** le
 okay NEUT:3SG:F be.good CONJ PRES thing:ABSTR what
Okay, good, then what (information)

- (b) g-ō lū gó lə
 2SG-CMPL come with PRO
have you come with?

21.3 Comitative copula construction (NP *gó* NP)

The comitative preposition *gó* 'with' can be used as a copula to join two noun phrases. Its function is to indicate that the referents of the two conjoined noun phrases are together. The exact way in which they are 'together' is determined by context. Quite often when the referent of the first noun phrase is animate and the second, inanimate, it is understood that the first possesses the second, as in the following example. The comitative copula construction is the

complement clause of the prepositional verb *ʃin gə* ‘hear’. As with the presentational copula construction, I mark the noun phrase that precedes the comitative preposition the Copula Subject (_{CS}), and the noun phrase that follows as the Copula Complement (_{CC}).²

- (14) *ā* *ʃin* *gó* *gí*
 3SG:M:CMPL hear PREP COMP
He heard that

- (b) [*abá* *n-gó-dan*]_{CS} *gó* [*nəmân* *kádágó*]_{CC}
 father MOD:M-POSS-3PL with money a.lot
his father had a lot of money

In this example both noun phrases of the construction are inanimate.

- (15) *sé* *ro* *so* [*gúlgúsū*]_{CS} *gó* [*máskádíó*]_{CC} *wo*
 day MOD:F NONSPEC:F dry.season with slipping POL
Is there a day when people slip in dry season?
(lit. some day dry season with slipping?)

It is possible for the copula subject not to be expressed when context is sufficient to recover it. Consider the next example with a series of three comitative copula constructions. In the first the copula subject (marked with the adversative marker) refers to the speaker. In the second and third, there is no copula subject expressed but it is understood that the referent of the original speaker is referred to.

² This example contains both the general preposition *gə* (which has the form *gó* here as it is not followed by its object) and the comitative preposition *gó*. These two are clearly distinct in function though identical in form. I gloss the general preposition PREP and the comitative preposition ‘with’.

- (16) **A:** [don **dámá**]_{CS} **gó** [amsó **n-g-u**]_{CC}
 1SG:IND ADVERS with word MOD:M-POSS-1SG
I have something to say (lit. me with word of me)
- (b) **B:** iyo **gó** [amsó **n-gó**]_{CC} wo
 okay with word MOD:M-POSS:2SG:M POL
You have something to say? (lit. with word of you?)
- (c) **A:** a **gó** [amsó **n-g-u**]_{CC}
 yes with word MOD:M-POSS-1SG
(yes) I have something to say
(lit. with word of me)

The comitative copula construction can be followed by the locative preposition *a* and its object. The referent of that object is consistently the same as the referent of the comitative copula subject. If that referent is non-human, only the preposition *a* precedes its object. If the referent is human, the complex preposition *a gə* is used. That is, *gə* is used to indicate that the ‘location’ is human. The first case is illustrated in (17), the second in (18). In the example below the copula subject occurs on line (b), the copula complement on line (c). The pronoun *lə* refers to the referent of the copula subject.

- (17) ndó nyi ró da fá də
 PRES thing:ABSTR DEM:F CONTR cow S.R.
That is why, the cow,
- (b) [fər-e i mbálē n-gə-n yó]_{CS}
 room-PL NMOD:PL arm:PL MOD:PL-POSS-3SG:M DET:PL
the space between his shoulder blades

- (c) **gó** [súguré]_{CC} **a** **lə**
 with hump PREP PRO
has a bump on it

There are two instances of the comitative copula construction followed by the preposition *a* in the next example. In the first line, there is an intervening temporal adverbial between the copula subject and the copula. Since the copula subject is human, the complex preposition *a gə* is used before its object, which refers to the referent of the copula subject. (In this case, the preposition *gə* fuses with the pronominal reference, forming what I have called the prepositional pronoun forms.) In line (b) the copula subject is not given as it is understood by context.

- (18) **A:** [kón]_{CS} na dó **gó** [le]_{CC} **a** **ngó** wá
 2SG:M:IND now DET:F with child:PL PREP PREP:2SG:M TAG
You have children, don't you? (lit. you now with children at you)

- (b) **B:** a **gó** [le]_{CC} **a** **g-u**
 yes with child:PL PREP PREP-1SG
Yes, I have children
(lit. yes with children at me)

The presence or absence of the preposition *gə* corresponding with the expression of a human or non-human location is also seen in the next type of non-verbal predication.

The comitative copula construction does not occur in negative clauses. To express negative possession (i.e., not possessing something) the verb *bo* 'have' is used. I discuss this verb in section 22.5.

21.4 Locative copula construction (NP *nda* LOC)

The function of the locative copula construction is to indicate that the referent of the copula subject is at the location given by the copula complement. The copula used in the locative copula construction is the most verb-like of the copulas used in non-verbal predication. Unlike the other copulas, the locative copula codes for the gender/number of the referent of the subject (as the subject marker does for certain persons in verbal predication), as shown in the following table.

Functions		Form	Meaning
<i>Number</i>	<i>Gender</i>		
Singular	Masculine	<i>nda</i>	be at
	Feminine	<i>ndwa</i>	
Plural	-	<i>nde</i>	

Table 21.1 Locative copula forms

The next three examples show the masculine, feminine and plural forms of the locative copula, respectively. I have noted the copula subject and complement in the same way that I did for the presentational copula construction and the comitative copula construction.

Masculine subject

- (19) *só* *ro* *so* [*abá só*]_{CS} *nda* [*skó*]_{CC}
 day MOD:F NONSPEC:F father DET:M be.at:M field
One day (his) father was in the fields

In this example the locative copula construction is an adverbial clause of reason introduced by *gí*.

Feminine subject

- (20) m fō ní gí [māwda]_{CS} ndwa [wo dó]_{CC}
 NEUT:1PL:INCL run L.P. COMP monster be.at:F village DET:F
Let's run away because a monster is in the village

Plural subject

- (21) [dén dē]_{CS} nde [ngwən ro-gə wələm só]_{CC}
 3PL:IND S.R. be.at:PL stomach MOD:F-POSS hole DET:M
They (were the ones) that were in(side) the hole

Another verb-like property of the locative copula is that it has an infinitive form, as all verbs do. This is shown in the next example.

- (22) ē ka ndá-n ho n-gə gómnárū só
 3PL:CMPL find be.at-INF L.P. MOD:M-POSS lover DET:M
They got to where (her) lover was

The two primary reasons for not treating the locative copula as a (full-fledged) verb are that: (i) the subject marker does not precede it, as is the case for all instances of verbal predication (except 2SG imperatives), and (ii) the locative copula is coded for the gender/number of the referent of the subject, yet no verbs are.

I have mentioned that the copula complement is always a location. This can be realized by a noun phrase (as in all the examples above) or with the locative specifiers and their object, as in the two examples below.

- (23) [blō só dē]_{CS} nda [gē-i ngō dó]_{CC}
 man DET:M S.R. be.at:M mouth-NMOD:PL place DET:F
The man was near/by/in front of the place

- (24) [nasará só]_{CS} nda [gó-l bəskon]_{CC}
 white.man DET:M be.at:M head-NMOD:F horse
The white man was on a horse

The location expressed by the copula complement can be a position relative to an established spatial reference point, as illustrated below, where one man is situated in front of another. In this example, the locative copula construction occurs in a relative clause. The head of the relative clause is the subject of both the matrix and the relative clause. As such it lies outside the relative clause.

- (25) [blō]_{CS} [n nda [gáko]_{CC}]_{RC} só
 man MOD:M be.at:M front DET:M
The man that was in front said ...

- (b) a gə rə gí ...
 NEUT:3SG:M say 3SG:M:IO COMP
The man that was in front said ...

The location need not be a physical place. That is, the copula complement can refer to a metaphorical location. In this example the ‘location’ is the Makary Kotoko language.

- (26) [fartaʃó dó]_{CS} ndwa [ngō-l mpadə]_{CC}
 fartaʃo DET:F be.at:F place-NMOD:F Makary
‘fartasho’ is not a Makary Kotoko word
(lit. ‘fartasho’ is not in Makary)

- (b) gí ne sən də wa
 COMP NEUT:1PL:EXCL know 3SG:F:DO NEG
(such) that we would know it

In chapter 26, I describe how noun phrases can occur in pre-subject position in verbal predication for pragmatic reasons. Similarly, noun phrases can precede the locative copula construction (i.e., before NP *nda* LOC). If the reference to the location precedes the locative copula construction or is understood by context, the non-human/locative pronoun *lə* occurs in the copula complement position, as shown in the next example where the noun phrase marked with the contrastive focus marker *da* in the first line is the antecedent of the pronoun *lə* in copula complement position.

- (27) sí [n ē gə rə]_{RC} só da
 tree MOD:M 3PL:CMPL say 3SG:M:IO DET:M CONTR
The tree that they told him about

- (b) [ftar só]_{CS} nda [lə]_{CC} gó dó
 lion DET:M be.at:M PRO head DET:F
the lion was on it

The locative copula construction with the pronoun *lə* as the copula complement can also be used to express the existence of the referent of the copula subject without actually locating the referent of the subject at a particular location. In such case the pronoun *lə* appears to be non-referential. This is illustrated in the next two examples.

- (28) [selo [n a fəra tó]_{RC}]_{CS} nda [lə]_{CC} wo
 bird MOD:M NEUT:3SG:M surpass 2SG:F:DO be.at:M PRO POL
Does a bird that surpasses you exist?

In this next example, the locative copula construction occurs twice, once in each line. In both cases the pronoun *lə* is non-referential.

- (29) [wáãdɔ]_{CS} nda [lɔ]_{CC} wa dɛ halàs
 trust be.at:M PRO NEG S.R. okay
If you don't trust me then okay (never mind),
- (b) dɔmá [wáãdɔ]_{CS} nda [lɔ]_{CC} bás aro ...
 ADVERS trust be.at:M PRO absolutely CONJ
but if you trust me then ...
(lit. if trust doesn't exist then okay but if trust exists then ...)

Notice in the first line of (29) that the locative copula construction is used in a negative clause to indicate negative existence – that is, that something does not exist. The locative copula construction is primarily used in affirmative contexts, though I have a half-dozen examples in the corpus where it occurs in a negative clause. Negative existence is generally expressed using the negative existential verb *dálá* ‘not exist’, presented in section 22.3.

In most cases, the subject of the locative copula is a third person and is expressed by either a full noun phrase (as illustrated in a number of the examples above) or an independent pronoun (cf. (21)). If the subject of the locative copula is a first or second person, the independent pronouns are used. The first person singular independent pronoun does not code for gender but since the locative copula does, the gender of the referent of the copula subject is made available to the addressee. This is shown in the next two examples. In this first example, the mother of Death is speaking. The first person singular independent pronoun and the feminine form of the locative copula are used.

- (30) madi lo ro-g-u [don]_{CS} ndwa [dunía]_{CC} dó ...
 death child MOD:F-POSS-1SG 1SG:IND be.at:F world CONJ
Death, my child, when I was living ... (lit. I was in the world)

In this next example the speaker is a man, as can be seen by the form of the locative copula.

- (31) a-sé-ró dó [don]_{CC} nda [mpadə]_{CC}
 PREP-day-DEM:F DET:F 1SG:IND be.at:M Makary
Today, I live in (the town of) Makary

With the second person singular independent pronouns there are distinct masculine and feminine forms, so coding for the gender of the referent of the copula subject occurs twice.

Second person singular feminine

- (32) Azié [tó da]_{CS} ndwa [ngō ró]_{CC} wo
 Azie 2SG:F:IND CONTR be.at:F place DEM:F POL
Azie, you're here?

Second person singular masculine

- (33) sá əl bō hé yahe [kón]_{CS} nda [lāla]_{CC} yígó
 sun NEUT:3SG:F dive L.P. even 2SG:M:IND be.at:M bush only
Even when the sun sets you're still out in the bush (i.e. the fields)

The corpus contains no examples of first person plural (inclusive or exclusive) or second person plural subjects of the locative copula construction.

To this point, all examples of location have been non-human. It is quite possible for the location to be human, in which case the locative copula is introduced with the preposition *gə*.

When the locative copula construction has a human location it is quite often (though not

necessarily) understood that the referent of the copula subject is possessed by the referent of the copula complement.

- (34) [nəmân kəndógē]_{CS} ndwa [gə abá en
 money a.lot be.at:F PREP father 3PL
The father of my husband

- (b) wi-sə n-g-u só]_{CC}
 husband-LINK MOD:M-POSS-1SG DET:M
had a lot of money

If the human location is expressed pronominally, the prepositional pronoun series is used, as shown in the next example.

- (35) [wahíe]_{CS} nde [n]_{CC} wo
 grain be.at:PL PREP:2PL POL
Do you have any grain?
(lit. grain is at you?)

In some cases, the copula subject does not appear before the locative copula. In such cases, it is recoverable by context. This next example contains two instances of this. In the first line, the locative copula construction occurs within a relative clause. The head of the relative clause, *wo* ‘village’, is feminine in gender so it cannot be the subject of the copula construction since the locative copula is in its plural form. In fact, the subject is understood. By context, it is understood that the subject of the copula is the people who live in the village. The second instance of the copula construction is in line (c). The noun phrase that precedes the locative copula cannot be the subject of the construction since it is masculine and the locative copula is

in its plural form. By context, it is understood that the subject is *wahíe* ‘grain’, mentioned in line (b). The noun phrase that occurs before the locative copula is co-referential with the copula complement. Since it is human, the copula complement is introduced with the preposition *gə*.

(36) wo [ro **nde** [lə]_{CC}]_{RC} dó
 village MOD:F be.at:PL PRO DET:F
The village where they were

(b) wahíe i dǎlá a lə
 grain NEUT:3PL not.exist PREP PRO
there was no grain there

(c) ílé msī gēre só da **nde** [gə-n]_{CC}
 except man.of agriculture DET:M CONTR be.at:PL PREP-3SG:M
It was the farmer that had them (i.e., the cereal)
(lit. farmer they are at him)

21.5 Combining non-verbal predication types (NP *gó* NP *nda* LOC)

It is possible to combine the comitative copula construction and the locative copula construction, such that the noun phrase between the copulas is a component of both simple constructions. I illustrate this in the next two examples with a non-human and human complement of the locative copula. I note the copula subjects and complements of the two constructions with subscripted numbers.

(37) [gǎrəm ro-gə-n dó]_{CS1}
 woman MOD:F-POSS-3SG:M DET:F
His wife

- (b) **gó** [[**gómnárū n-gó-də**]_{CC1}]_{CS2} **nda** [**lə**]_{CC2}
 with boyfriend MOD:M-POSS-3SG:F be.at:M PRO
had a boyfriend
- (38) [**ʃa** **afadə də**]_{CS1} **gó** [[**luk'urân**]_{CC1}]_{CS2} **nda** [**gó-dan**]_{CC2}
 inhabitants.of Afade S.R. with Koran be.at:M PREP-3PL
The inhabitants of Afade had a (copy of the) Koran

21.6 Minor non-verbal constructions

21.6.1 Naming using *do* 'as' like a copula

The preposition *do* 'as', whose functions are described more fully in section 11.1.4, can be used like a copula between two noun phrases, the first of which is *ʃímū* 'name'. The function of the construction is to give the name of someone, as shown below.

- (39) **ē** **sī** **ngwāru** **n-gə** **abá** **n-gó-dan**
 3PL:CMPL take slave:M MOD:M-POSS father MOD:M-POSS-3PL
They took the slave of his father
- (b) [**ʃímū n-gə-n**]_{CS} **do** [**Barká**]_{CC}
 name MOD:M-POSS-3SG:M as Barka
His name was Barka

21.6.2 Noun phrases as complete propositions

There are some instances in the corpus where a single noun phrase (often possessed) functions as a complete proposition. I have provided evidence for this in section 5.3 with the infinitive, and in section 5.5 with nominalizations formed with the suffix /-sən/. What I mean by the noun phrase functions as a proposition is that it is not an argument of either the preceding or the following clause, but expresses a situation/state/event by itself. Its aspect/mode framework is

provided by context. In the next example, the first line constitutes a verbal clause, as does line (c). Line (b) has a possessed noun which is neither an argument of the clause in line (a), or the clause in line (c). It provides the reason for why the speaker wants the person in question sent away.

(40) we do rə ní
 NEUT:2PL send 3SG:M:IO L.P.
Send him away

(b) **mərádə ro-gə-n**
 will MOD:F-POSS-3SG:M
(It was) his choice

(c) dan mbodo a yá gó
 3SG:M:IND INTENS NEUT:3SG:M want PREP
He's the one that wanted (to do it)

21.7 Summary

In this section, I have presented the different types of non-verbal predication in Makary Kotoko. The juxtaposition construction is the only copula-less construction. It conveys the semantic notions of identity and attribution between the referents of the subject and complement. The presentational copula construction has a similar function but the complement is limited to noun phrases in this case. The comitative copula construction indicates that the subject and the complement are together. If the subject is human, the notion of possession is often understood. The locative copula construction situates the referent of the subject at the

location indicated by the complement. If the complement is non-referential the construction indicates that the referent of the subject exists.

22 Negation

In this section I discuss issues related to negation in Makary Kotoko.¹ I indicate where the negative marker *wa* (NEG) occurs within the clause, then present evidence that negation does not affect the aspect/mode of the clause, and show instances of negation in non-verbal predication as well. I then address two verbs in the language which are inherently negative, as evidenced by the fact that the negative marker does not occur in such sentences, yet negation is expressed. I follow this with two verbs which are most frequently used in negative contexts. I then present two intensifying adverbs which are predominantly used in negative contexts. Following this, I address the issue of the scope of negation. Since the negative marker occurs clause finally, there are potentially ambiguous situations in complex sentences to determine if the matrix clause or the subordinate clause is negated. Finally I note the absence of negative quantifiers in the language and the means used to express comparable notions in Makary Kotoko.

To mark sentential negation, Makary Kotoko uses the negative particle *wa* in clause final position, though preceding the polar and tag question markers, as illustrated below.

Negative marker precedes polar question marker *wo*

- (1) *nəmân* *ro-g-u* *dó* *ndá-g* *fo* *n* **wa** *wo*
 money MOD:F-POSS-1SG DET:F INCMPL-2SG give:APPL 1SG:IO NEG POL
My money, you're not giving me (any)?

¹ Cf. Mahamat 2005:109-112 for brief comments on negation in Makary Kotoko.

Negative marker precedes tag question marker *wá*

- (2) tá-y g-amsé gó n **wa** wá
 PROH-3PL say-word with 1SG NEG TAG
They shouldn't speak to me, eh?

22.1 Negation in verbal predication

In the corpus, the negative marker occurs in clauses with every aspect/mode coding, except the volitive. There is no change in the form of any of these in the negative context.

These are illustrated in turn below.

Completive aspect in negative clause

- (3) ā bíā ǰārgū ro-gə abá
 3SG:M:CMPL attend sickness MOD:F-POSS father
He wasn't there when

- (b) n-gé-dan dó he **wa**
 MOD:M-POSS-3PL DET:F L.P. NEG
his father was sick
(lit. he didn't attend his father's sickness)

Incompletive aspect in negative clause

- (4) nda dū gó də **wa**
 INCMPL:3SG:M walk with 3SG:F NEG
He's not having sex with her
(lit. he's not walking with her)

Irrealis in negative clause

- (5) ló l swá-é dó mé-l sā ne ga **wa**
 child NMOD:F arab-PL DET:F IRR-3SG:F sit 1PL:EXCL:IO mouth NEG
An Arab lady won't reign over us

Neutral aspect in negative clause

- (6) ē kadá wo-e dāmá i ka wa
 3PL:CMPL follow village-PL ADVERS NEUT:3PL find thing:CONC:PL
They went to many villages but couldn't find anything

- (b) i i ga **wa**
 NEUT:3PL snatch mouth NEG
to eat

Prohibitive in negative clause

- (7) **tá-g** de yó **wa**
 PROH-2SG open L.P. NEG
Don't open (it)

Prohibitives are addressed more fully in section 13.5, which deals with the functions of the different aspect/mode codings.

22.2 Negation in non-verbal predication

The negative marker also occurs with three of the four major non-verbal predication types: the juxtaposition construction, the presentational construction, and the locative copula construction (cf. chapter 21 for a description of non-verbal predication and the use of square bracketing and subscripting to identify the components of these constructions). Each of these is illustrated in turn.

Negation in the juxtaposition construction

- (8) [nda só]_{VCS} [blō [n a sén skəm]_{RC}]_{VCC} **wa**
 DEM:M DET:M man MOD:M NEUT:3SG:M know hunger NEG
That is a man who doesn't know hunger

Negation in the presentational copula construction

- (9) [mafi só]_{CS} ndó [blō n a mbîn]_{CC} wa
 hyena DET:M PRES man MOD:M NEUT:3SG:M be.good NEG
The hyena is not a good person

Negation in the locative copula construction

- (10) a-sé-ró [blō n nga]_{CS} nda [lárdə dó]_{CC} wa
 PREP-day-DEM:F man MOD:M healthy be.at:M country DET:F NEG
Today, there are no healthy people in the region

The one non-verbal predication type in which the negative marker does not occur is the comitative copula construction. As noted in section 21.3, a common function of this construction is to express that the referent of the copula subject ‘possesses’ the referent of the copula complement. To express possession in the negative context (i.e., not possessing something), the verb *bo* ‘have’ is used. I discuss this verb further on in section 22.5.

22.3 Negative existence using *dálá*

The negative existential verb *dálá* ‘not exist’ indicates that the referent of the subject marker does not exist. In the corpus, it (almost) always occurs with the neutral aspect markers and only with third person subjects. Unlike most other negative clauses, the negative marker does not occur with the negative existential verb since negation is a component part of the meaning of the verb. In this next example the 3SG:F subject marker is in the neutral aspect and is co-referential with the pre-subject noun phrase (which is modified by a relative clause).

dálá ‘not exist’

- (11) nyi [ro m-ú gə re]_{RC} əl dálá
 thing:ABSTR MOD:F IRR-1SG say 2PL:IO NEUT:3SG:F not.exist
I don’t have anything to say to you (lit. thing that I say to you doesn’t exist)

The negative existential verb is also used in a euphemism to indicate that someone has died. In this case, the completive aspect is used with the subject marker, as shown below.

- (12) abá só ā **ɗalá**
 father DET:M 3SG:M:CMPL not.exist
(His) father (had) died

- (b) əl yā fā-e n si
 NEUT:3SG:F become year-PL MOD:PL NONSPEC:PL
a few years before

22.4 Negative verb *nāən* ‘not yet’

The only other verb in the language with negation as a component part of its meaning is *nāən* ‘not yet’. This is illustrated in the following example.

- (13) áftə sə sārga só a **nāən** kʼani ...
 time NMOD:M sacrifice DET:M NEUT:3SG:M not.yet CONJ
The time to perform the (death) sacrifice hadn’t come yet, then ...

22.5 Negative possession using *bo* ‘have’

Dixon (2010b) notes that “less than half the world’s languages include a verb like *have* for asserting that a certain relationship of possession holds” (2010b:265). Makary Kotoko is among the ‘haves’ of the languages of the world, though the verb *bo* ‘have’ has restricted functions. In the majority of the instances within the corpus, this verb occurs in negative clauses. That is, it is most frequently used to express negative possession. It occurs in the completive aspect in all but one instance. The following example is illustrative.

- (14) a yá gə mā [ro n-ō bo ga wa]_{RC}
 NEUT:3SG:M want PREP woman MOD:F 3SG:F-CMPL have mouth NEG
He was looking for a woman who didn't have a mouth

Note in this previous example that the negative marker negates the relative clause (as noted by the bracketing), not the matrix clause. I will discuss examples like this further below when I address the scope of negation.

When *bo* 'have' does occur in affirmative contexts, it generally refers to either the passage of time or someone's age, as shown below.

- (15) ā bo fā-e míá l gokúro
 3SG:M:CMPL have year-PL hundred NMOD:F three
He was three hundred years old

22.6 Negative capability using *bó gə* 'be able'

The prepositional verb *bó gə* 'be able' takes a clausal complement, though without the use of the complementizer *gí*. It could be analyzed as a modal auxiliary, expressing negative capability. This verb (almost) always occurs in negative clauses. That is, it expresses negative capability. It occurs in all aspect/modes but the volitive. When the matrix is in the completive, the complement clause is as well, as shown below.

Completive aspect in matrix clause and complement clause

- (16) w-ō bó gó w-ō dǎ ngō ro-ngó wa
 1SG-CMPL be.able PREP 1SG-CMPL put place MOD:F-POSS:2SG:M NEG
I wasn't able to let you know

When the matrix is in the incompletive, the irrealis, or the neutral aspect form, the complement clause is always in the neutral aspect form. Each of these is illustrated in turn below.

Incompletive aspect in matrix and neutral aspect form in complement clause

- (17) **ndá-g bó gó gə gə wa ngâ**
 INCMPL-2SG be.able PREP NEUT:2SG say NEG INTENS
If you aren't able to ever say (it)

- (b) aro ndá-w ɕi tó nk'ár-e
 CONJ INCMPL-1SG scratch 2SG:F:DO claw-PL
then I'll scratch you with my claws

Irrealis in matrix and neutral aspect form in complement clause

- (18) **m-á bó gó a ɗō wa**
 IRR-3SG:M be.able PREP NEUT:3SG:M bring NEG
He won't be able to bring (it)

Neutral aspect form in matrix and complement clause

- (19) **áʔa u bó gó u te hé wa**
 no NEUT:1SG be.able PREP NEUT:1SG return L.P. NEG
No, I can't go back

It is possible for *bó gə* to occur without a following complement clause, however context enables the addressee to determine what action/situation/event/etc. is not possible. The context of this next example is that a woman is trying to lift a clay jar that she thinks is filled with water (but has actually been filled with sand). Line (b) indicates that she is not able to.

- (20) n-ō lū gí əl kō amé ho
 3SG:F-CMPL come COMP NEUT:3SG:F lift water L.P.
She came to lift up the water (jar)

- (b) k'ani əl bó gó wa
 CONJ NEUT:3SG:F be.able PREP NEG
but she couldn't

Instead of taking a complement clause, the prepositional verb *bó gə* can take the reflexive particle *si* as the object of its preposition. In such cases, the subject marker is always feminine and it refers to a situation conveyed in the preceding context (as opposed to a human referent as in all the examples above). This is used as an idiomatic expression in the language. In this next example, the sultan has called his subjects together to have them build him a home between heaven and earth. He doesn't want a home built on the ground like his subjects have.²

- (21) don de [hó ro-g-u]_{CS} ndwa [tón]_{CC} dó
 1SG:IND S.R. house MOD:F-POSS-1SG be.at:F ground CONJ
As for me, having my home on the ground

- (b) əl bó gó si wa
 NEUT:3SG:F be.able PREP REFL NEG
it's not possible

There is only one instance in the corpus where *bó gə* does not occur in a negative context. In this case, however, it is in an interrogative clause with the interrogative marker *la he*, which is used to question the means/manner/reason in the clause. In this example it is clearly a rhetorical question anticipating a negative response.

- (22) u yā me mádǎ k'áw
 NEUT:1SG become sultan for.nothing IDEO
Were I to become sultan all alone

² Exceptionally, the preposition *gə* is realized with H tone before the reflexive marker.

- (b) dəban sabâ n-g-u dó
 without friend MOD:M-POSS-1SG CONJ
without my friend,

- (c) má-l bó gó si la he
 IRR-3SG:F be.able PREP REFL MMR what
how would it be possible? (i.e., that's not possible)

22.7 Intensifying negation: *ngâ*, *dəge*

There are two intensifying adverbs which occur predominantly in negative contexts.

They follow the negative marker in such cases. The first *ngâ* (INTENS) appears to be related to *ngâ* ‘healthy, whole, well’ which is likely borrowed from Kanuri.

- (23) ā dē ní lán dōtē dó
 3SG:M:CMPL go L.P. completely very CONJ
He left for good and

- (b) ā lū wa ngâ
 3SG:M:CMPL come NEG INTENS
never came back

Though *ngâ* as an intensifier primarily occurs in negative contexts, it can also be used in non-negative contexts as shown below.

- (24) ā yá gó gí a fē gó mpadə ngâ
 3SG:M:CMPL want PREP COMP NEUT:3SG:M fight with Makary INTENS
He really wanted to fight with (the residents of the town of) Makary

The intensifying adverb *dəge* (INTENS) is also predominantly used in negative contexts.

Interestingly, the negative marker, which is consistently realized with L tone in all other contexts, is realized with H tone preceding this L toned adverb.

- (25) *nē* *ndə wá dəge*
 1PL:EXCL:CMPL see NEG INTENS
We didn't see (what happened) at all

Like *ngâ*, *dəge* can also occur in non-negative contexts, as shown below.

- (26) *u* *yá gə amefú i ēni dəge*
 NEUT:1SG want PREP gruel NMOD:PL milk INTENS
I really want milk gruel

22.8 Scope of negation

In section 22.5 above, I gave the following example, indicating that the negative marker was part of the relative clause, as noted by the square bracketing. The head of the relative clause is the object of the prepositional verb *yá gə* ‘want’. This sentence is actually ambiguous between two interpretations: (i) he was looking for a woman with no mouth, (ii) he wasn’t looking for a woman with a mouth.

- (27) *a* *yá gə mā [ro n-ō bo ga wa]_{RC}*
 NEUT:3SG:M want PREP woman MOD:F 3SG:F-CMPL have mouth NEG
He was looking for a woman who didn't have a mouth

Since the negative marker occurs clause-finally, it can either apply to the matrix clause or the relative clause. Only context enables the addressee to know the scope of negation in these types of examples. In the example above, it is made clear by context that what he (a hyena) is looking

for is a woman with no mouth, because he wants her to cook a goat for him that she won't be able to eat herself. The following example is structurally very similar to the preceding. Note however that I have situated the right hand square bracket noting the end of the relative clause before the negative marker. The head of the relative clause is the direct object the matrix verb *són* 'know'. This sentence has potentially two interpretations: (i) they don't know what happened, (ii) they know what didn't happen. Context makes it clear that the first interpretation is intended.

- (28) i són nyi [ro n-ō gá si]_{RC} **wa**
 NEUT:3PL know thing:ABSTR MOD:F 3SG:F-CMPL put REFL NEG
 They don't know what happened

In such examples there are no prosodic clues (e.g. pausing, intonation changes, etc.) to indicate the scope of the negative marker. Context is an essential component of the interpretation of the sentence. This next example contains a subordinate clause introduced by *gí* which follows an instance of the locative copula construction. The clause final negative marker could have scope over the matrix or the subordinate clause. Because of these two possibilities, the sentence could mean two things: (i) 'fartasho' is not a Makary Kotoko word (such) that we would know it, (ii) 'fartasho' is a Makary Kotoko word that we don't know. Again, by context, the first is the intended meaning.

- (29) [fartaʃó dó]_{CS} ndwa [ngō-1 mpadə]_{CC}
 fartaʃo DET:F be.at:F place-NMOD:F Makary
‘fartasho’ is not a Makary Kotoko word
(lit. ‘fartasho’ is not in Makary)

- (b) gí ne sín dǎ wa
 COMP NEUT:1PL:EXCL know 3SG:F:DO NEG
(such) that we would know it

22.9 Negative quantifiers

Makary Kotoko does not have a series of negative quantifiers (corresponding to ‘no one’, ‘nothing’, ‘nowhere’, etc). Instead to express similar notions, the clause is marked with the negative marker *wa* and the relevant argument of the clause is modified by the non-specific marker, as illustrated in the next two examples. In this first example the direct object is coded with the non-specific marker and the clause is coded for negation.

- (30) a ndə **nəmân** ro so a hó dǎ wa
 NEUT:3SG:M see money MOD:F NONSPEC:F PREP house DET:F NEG
He didn’t see any money in that house

In this example the object of the prepositional verb is marked with the non-specific marker.

- (31) ā hōn ngánōbu gó álǒfu dǎmá
 3SG:M:CMPL do suffering with prayer ADVERS
He prayed earnestly but

- (b) ā ʃin gə **nyi** ro so wa
 3SG:M:CMPL hear PREP thing:ABSTR MOD:F NONSPEC:F NEG
he didn’t hear anything

If a noun phrase marked with the non-specific marker is placed in pre-subject position in a negative clause, the focus marker *má* (FOC) is consistently used to mark the pre-subject noun phrase. The elicited example below can be compared with (30) above.

- (32) **nəmân ro so má** a ndə
 money MOD:F NONSPEC:F FOC NEUT:3SG:M see
He didn't see any money

- (b) a hó dó **wa**
 PREP house DET:F NEG
in the house

In this next example a pre-subject noun phrase that is co-referential to the subject marker is coded with both the non-specific marker and the focus marker in a negative clause.

- (33) sɔ́ dɛ **nyi ro so má**
 sun S.R. thing:ABSTR MOD:F NONSPEC:F even
As for the sun, nothing

- (b) əl wālə gó-də **wa**
 NEUT:3SG:F hurt PREP-3SG:F NEG
bothers it

The prohibitive is used in the next example. The noun phrase in pre-subject position is coded with the non-specific marker and the focus marker. It is co-referential with the subject marker.

- (34) gīsu dó **blō n si má**
 tomorrow DET:F man MOD:M NONSPEC:M FOC
Tomorrow, no one

- (b) tá dē ts'e a wo dó **wa**
 PROH:3SG:M go outside PREP village DET:F NEG
should leave the village

The same pattern holds true in non-verbal predication. In this next example the subject of the locative copula is marked with the non-specific marker and the focus marker, and the clause is negated.

- (35) kənórī ā lū dó
 squirrel 3SG:M:CMPL come CONJ
Squirrel came but

- (b) [**blō n si má**]_{CS} nda [wo dó]_{CC} **wa**
 man MOD:M NONSPEC:M FOC be.at:M village DET:F NEG
no one was at the village

There are also instances in the corpus where the numeral *pál* ‘one’ is used instead of the non-specific marker. The following example can be compared with (34) above. They are taken from the same text.

- (36) **blō pāl má** tá dē ts'e a wo dó **wa**
 man one FOC PROH:3SG:M go outside PREP village DET:F NEG
No one should leave the village

In briefly discussing negation in Makary Kotoko, Mahamat (2005) gives an instance of what he considers to be ‘double negation’, where the gender sensitive forms *sima* (M) and *soma* (F), glossed “aucun(e)” (none), combine with the clause level negation marker (2005:111). As can be seen in my analysis given above, I identify two separate morphemes in these forms: (i) the gender/number sensitive non-specificity markers *sí* (NONSPEC:M/PL) and *so* (NONSPEC:F) (cf.

section 6.1.3) and (ii) the focus marker *má* (FOC). As such these forms do not express negation and in combination with the clause level negative marker do not constitute an instance of double negation.

22.10 Summary

Negation has been the topic of this chapter. I have noted the clause final position of the negative marker *wa* and shown that aspect/mode is unaffected by negation. I presented two verbs in the language which have negation as a component of their meaning, and also two other verbs which are predominantly used in negative contexts. I discussed two intensifying adverbs which can be used to intensify negation, and then addressed the potential for ambiguity in terms of the scope of negation in complex sentences. I finished with how Makary Kotoko expresses notions expressed with negative quantifiers in other languages.

23 Interrogatives

In this chapter I discuss issues related to posing questions in Makary Kotoko. I begin with polar questions – questions that generally expect a yes/no response. The primary means for coding a polar question is with the clause final marker *wo* (POL). Another means used to express polar questions is through the use of intonation, though this is generally restricted to contexts in which the speaker seeks confirmation of something that has just been said. Somewhat similar in function is the clause final tag question marker *wá* (TAG) which generally seeks confirmation from the addressee for what the speaker believes to be true. I follow this with a discussion of alternative questions.

I then discuss content questions and present the means used to question elements of the clause. All questioned constituents occur *in situ* in Makary Kotoko. In all, there are five interrogative terms in the language: *yagí* ‘who’, *le* ‘what’, *he* ‘what’, *wadí* ‘what’, and *garo* ‘how much’. As well, there is a verb *hāmò* ‘be wrong?’ which appears to have the interrogative as a component part of its meaning since clauses in which it occurs are always understood to be a question yet none of the interrogative terms just mentioned occur in the clause.

23.1 Polar questions

The primary means used to mark a polar question in Makary Kotoko is with the clause final marker *wo*. It can occur in clauses with any aspect/mode coding except the prohibitive, and there is no change in the form of any of these in the interrogative context. The absence of

the polar question marker with the prohibitive appears to be a logical gap as it would seem pragmatically difficult to combine a negative imperative with a polar question in the same clause. I illustrate the polar question marker in completive, incompletive, irrealis, volitive and neutral aspect clauses, respectively.

Polar question in clause with completive aspect

- (1) ā ha kən kurkûn **wo**
 3SG:M:CMPL do:APPL 2SG:M:IO medicine POL
Did he heal you?

Polar question in clause with incompletive aspect

- (2) hâl ro dó da nda hĕn **wo**
 act DEM:F DET:F CONTR INCMPL:3SG:M do POL
Is that what he's doing?

Polar question in clause in irrealis mode

- (3) mǎ-g ts'am **wo**
 IRR-2SG agree POL
Would you agree (to it)?

Polar question in clause with volitive coding

- (4) kĕn yá-g fō ní **wo**
 2SG:M:IND VOL-2SG run L.P. POL
Are you going to run away?

Polar question in clause with neutral aspect form

- (5) skəm dó na dó gə sĕn dǎ **wo**
 hunger DET:F now DET:F NEUT:2SG know 3SG:F:DO POL
Now do you know what hunger is?

The polar question marker also occurs with non-verbal predications, as shown below for the juxtaposition construction, comitative copula construction and locative copula construction, respectively.

Polar question in juxtaposition construction

- (6) d̩əmo d̩ó [nyɪ r̩ó da]_{VCS} [h̩âl ro-g̩ó-d̩ə]_{VCC} **wo**
 sheep DET:F thing:ABSTR DEM:F CONTR act MOD:F-POSS-3SG:F POL
Is that how sheep is going to behave?
(lit. sheep, this thing her act?)

Polar question in comitative construction

- (7) s̩é ro so [d̩úm̩ū]_{CS} g̩ó [ēni]_{CC} **wo**
 day MOD:F NONSPEC:F bull with milk POL
When does a bull give milk?
(lit. some day bull with milk?)

Polar question in locative copula construction

- (8) Azié [t̩ó da]_{CS} ndwa [ng̩ō r̩ó]_{CC} **wo**
 Azie 2SG:F:IND CONTR be.at:F place DEM:F POL
Azie, you're here?

The polar question marker can come directly after a noun phrase. Based on my analysis of non-verbal predication in section 21.1, I treat this as an instance of the juxtaposition construction but with the verbless clause subject unexpressed, as it is understood by context. The context of this next example is that a rabbit has hidden in a hole in which a lioness has placed her cubs. The lion comes each day to the entrance of the hole and nurses the cubs. The rabbit takes advantage of the situation and drinks the lioness's milk along with the cubs. The lioness realizes something is amiss, figures out the rabbit is hiding in the hole, and demands that

he come out so she can hit him. The rabbit agrees to leave but asks the lioness to first toss his shoes aside. Then the rabbit lies down with his ears at the entrance of the hole. The lioness thinks the ears are the rabbit's shoes, and tosses them (along with the rabbit) aside, thus enabling the rabbit to escape.

(9) ftar ā gə gí
 lion 3SG:M:CMPL say COMP
Lion said,

(b) [hálbō sə mənɪ n-gó-də]_{VCC} wo
 shoe NMOD:M anus MOD:M-POSS-3SG:F POL
“(Are these) her [expletive] shoes?”

23.1.1 Polar questions using intonation

Another means to mark a polar question is through the use of intonation. The general intonation pattern used in these cases is to start the clause with higher than usual pitch and maintain it throughout the clause (though realizing the tones normally). In these cases, the speaker is seeking confirmation for something that has just been said. Quite often the speaker repeats close to verbatim what has just been said, but with interrogative intonation. In this example, A asks a content question of B, and then B provides the requested information (line (b)). A then asks a polar question of B, using the content of B's speech but with the interrogative intonation pattern (line (c)). B then confirms what he already said (line (d)).

(10) A: gə tágə wa he
 NEUT:2SG eat thing:CONC:PL what
What are you eating?

(b) **B:** u tágə mār̀k'we
 NEUT:2SG eat bran
 I'm eating bran

(c) {pitch level raised}
A: gə tágə mār̀k'we
 NEUT:2SG eat bran
 You're eating bran?

(d) **B:** a u tágə mār̀k'we
 yes NEUT:2SG eat bran
 Yes, I'm eating bran

23.1.2 Tag questions

Makary Kotoko has a tag question marker *wá* (TAG) whose function is to seek confirmation of what the speaker already believes to be true. In general, this is either because the information given in the tag question is already provided by context or the information in the tag question is the expected behavior/action/reasoning/situation/etc., given the context. The tag question marker never occurs with the polar question marker which suggests that the two are from the same coding domain – coding interrogatives – but with complementary roles within that domain. A probable source for the tag question marker is the negative marker *wa*. The two are segmentally identical but tonally distinct.

Often, when a tag question is asked, the addressee will reply with the expected confirmation, as in the next example.

(11) **A:** [kɛ́n]_{CS} na dó gó [lé]_{CC} a ngó wá
 2SG:M:IND now DET:F with child:PL PREP PREP:2SG:M TAG
You have children, don't you?

(b) **B:** a gó [lé]_{CC} a g-u
 yes with child:PL PREP PREP-1SG
Yes, I have children

In other cases, the addressee simply continues the conversation without actually providing explicit confirmation to the tag question. In this next example speaker B replies in the negative following the tag question asked by A. B's response is not in reply to A's tag question. Instead, B is advancing the conversation to another (related) topic. The context of this example is that a man has two wives and one of them, the older one, is going to the sultanate to report the alleged theft of the sultan's goat by her husband. The younger wife is concerned that their husband will be killed. The older one says there are lots of men out there (who would marry them should their husband be killed).

(12) **A:** wi-sə n-gə-mo só
 husband-LINK MOD:M-POSS-1PL:INCL DET:M
Our husband,

(b) **A:** m-í la rə wá
 IRR-3PL kill 3SG:M:DO TAG
they'll kill him, won't they?

(c) **B:** á?a mēywe n kádágó nde yó ...
 no males MOD:PL a.lot DEM:PL DET:PL
No. There are lots of men (out there)

The tag question marker is commonly used in greetings as well, as shown in line (c) below.

(13) **A:** s̄āgālē
welcome
Welcome!

(b) **B:** alé
thank.you
Thank you

(c) **A:** kəláfia **wá**
peace TAG
How are you?

(d) **B:** kəláfia
peace
Fine

Though the speaker may expect simple confirmation of what they believe to be true, it may in fact be the case that what they believe to be true is not actually true, as shown in the next example, where the reply disconfirms what the original speaker believed to be true.

(14) **A:** mā d́o we s̄ón d́o **wá**
woman DET:F NEUT:2PL know 3SG:F:DO TAG
You know the woman, don't you?

(b) **B:** ne s̄ón d́o wa
NEUT:1PL:EXCL know 3SG:F:DO NEG
We don't know her

23.1.3 Alternative questions

Alternative questions in Makary Kotoko are formed using the disjunctive marker *lábā* 'or'. The prototypical construction has the following structure:

CLAUSE₁ INTERR *lábā* CLAUSE₂ NEG

This is illustrated in the next example.

- (15) g-ō ndə **wo** **lábā** g-ō ndə **wa**
 2SG-CMPL see POL or 2SG-CMPL see NEG
Did you see it or not?

The two alternatives need not be polar opposites. They are however contrasting elements within the context, as the example below illustrates.

- (16) ē dē ní **wo** **lábā** nde wo dó
 3PL:CMPL go L.P. POL or be.at:PL village DET:F
Have they left or are they (still) in the village?

The tag question marker may occur after the first alternative instead of the polar question marker, as illustrated below.

- (17) m-ú tágə kén **wá** **lábā** u dē wa le
 IRR-1SG eat 2SG:M:DO TAG or NEUT:1SG go village what
I'm going to eat you, eh, or where would I go?

The two alternatives need not be clausal. This is illustrated in the next example, where no interrogative marker is used.

- (18) ē lū krés mafi **lábā** álgə
 3PL:CMPL come IDEO hyena or person
They came quickly, "Is it a hyena or a person?"

In some cases, the second alternative is unexpressed.

- (19) a gə gí áʔa ne dē ní **lá** ...
 NEUT:3SG:M say COMP no NEUT:1PL:EXCL go L.P. or
He said, "No, we're going or ... (what other option is there?)"

23.1.4 *Replying when one's name is called using nam*

Makary Kotoko makes use of the interrogative term *nam* as a means of replying to someone who calls the person by name. This is a borrowing, ultimately from Arabic.

(20) **A:** k'ani ā ts'am **nam**
 CONJ 3SG:M:CMPL agree yes?
Then he responded, "Yes?"

(b) **B:** yagí da ā fé kón
 who CONTR 3SG:M:CMPL call 2SG:M:DO
"Who called you?"

23.2 Content questions

All questioned constituents occur *in situ* in interrogative clauses. That is, they occur in the position in which they would occur in a declarative clause. There are five interrogative terms in the language: *yagí* 'who', *le* 'what', *he* 'what', *wadí* 'what', and *garo* 'how much'.¹ Note that the middle three terms are all glossed 'what'. These each occur with a distinct set of lexical items, and as such are in complementary distribution. In addition to these five terms, I discuss the 'interrogative' verb *hāmò* 'be wrong?'.

23.2.1 *yagí* 'who'

The interrogative term *yagí* 'who' refers to a human (or anthropomorphized animal) referent. It is a noun with masculine gender. This can be seen when it is co-referential to the

¹ Mahamat (2005) lists three interrogative pronouns in the language: *yàgí* 'who', *wàhè* 'what', *wàdí* 'which' (2005:63). He fails to recognize the morphologically complex nature of the second term: *wa* (thing:PL:CONC) *he* (what), nor does he mention *le* 'what', or *garo* 'how much/many'.

subject marker of the clause. In such cases, the subject marker takes the 3SG:M form, as shown in the next example.

- (21) **yagí** ā sī kla
 who 3SG:M:CMPL take victory
Who won?

Like other noun phrases in pre-subject position, *yagí* can be coded with the contrastive focus marker *da*, as shown below. In this example there are two pre-subject noun phrases (marked with square bracketing and subscripted numbers). As described in section 26.1, the referent of the unmarked noun phrase is the topic. The unknown referent of the noun phrase marked with *da* is in contrastive focus with all those who could have potentially taken the wraparound skirts.

- (22) [sáne yó]₁ [**yagí** da]₂ ā fá ho
 wrap.around.skirt DET:PL who CONTR 3SG:M:CMPL gather L.P.
Who took (our) wraparound skirts?

In this next example *yagí* is both the direct object of the first clause and is co-referential with the subject marker of the second clause.

- (23) aro u ka **yagí** a lū g-u ho
 CONJ NEUT:1SG find who NEUT:3SG:M come PREP-1SG L.P.
Who will come help me? (lit. I find who he comes to me)

23.2.2 *le* ‘what’

The function of the interrogative term *le* ‘what’ is to question terms referring to the basic ontological categories of the language. In particular, it is only used following a nominal

reference to: (i) a female referent (*mā* (woman)), (ii) a concrete thing (*ǭi* (thing:CONC)), (iii) an abstract thing (*nyi* (thing:ABSTR)), (iv) a place (*ngō* (place), *wa* (village)²), and (v) time (*só* ‘day’, *saka* ‘time’). It is also used when the questioned element is a pronoun (*e* (3SG:M/3PL), and *no* (3SG:F)). I discuss each of these in turn.

If the questioned human referent is known by context to be female, then the form *mā le* (woman what) is used.³ In this next example the questioned term is the verbless clause complement.

(24) **A:** *ā* *kē* *gó-də* *gí* [tó]_{VCS} [*mā* *le*]_{VCC}
 3SG:M:CMPL ask PREP-3SG:F COMP 2SG:F:IND woman what
 He asked her: “Who are you?”

(b) **B:** [*don*]_{VCS} [*Azié*]_{VCC}
 1SG:IND *Azie*
 “I’m Azie”

If the questioned referent is a concrete thing then the form *ǭi le* (thing:CONC what) is used. In the following example, the questioned element is co-referential to the subject of the clause. Note that the subject marker is coded with feminine gender since *ǭi* (thing:CONC) is feminine in gender.

² I gloss the form *wa* as ‘village’ even though the lexical form for ‘village’ is *wo*. There are two pieces of evidence which support this idea. Firstly, *wa* is used with the interrogative marker *le* to question a location. Secondly, *wo* ‘village’ is of feminine gender, and the interrogative term *wa le* takes the feminine modifying marker when occurring with a possessive determiner (cf. example (45)).

³ The form used to refer to a plural human referent is *mēy wa le* (people.of village what). This does not occur in the corpus, but was obtained in elicitation sessions.

- (25) kón **ɔ̄i** **le** n-ō ɔ̄o kən ngō ró
 2SG:M:IND thing:CONC what 3SG:F-CMPL bring 2SG:M:IO place DEM:F
Hey you, what brought you here?

If the questioned referent is an abstract thing, then the form *nyi le* (thing:ABSTR what) is used. In this next example the questioned element is the verbless clause complement. The speaker comes upon a scene where a woman is rolling around on the ground. He questions the woman's husband as to the situation he sees before him.

- (26) ā kē gə-n gí
 3SG:M:CMPL ask PREP-3SG:M COMP
He asked him,

- (b) [nyi ró]_{VCS} [nyi le]_{VCC}
 thing:ABSTR DEM:F thing:ABSTR what
"What is it?"

The interrogative term *nyi le* can be used to question the reason for the situation described in the clause. This is illustrated in the next example.

- (27) **A:** ne mawe da nē lū ɔ̄ge
 1PL:EXCL:IND visitors CONTR 1PL:EXCL:CMPL come INTENS
"We, visitors, have come"

- (b) **B:** hā wē lū **nyi** **le**
 INTERJ 2PL:CMPL come thing:ABSTR what
"Ha! Why have you come?"
(lit. you've come abstract thing what?)

If the questioned referent is a location, then either the form *ngō le* (place what) or *wa le* (village what) is used. Each is illustrated in turn below.

- (28) aro kón waháre yó yá-g do ngō le
 CONJ 2SG:M:IND wood:PL DET:PL VOL-2SG take.to place what
Hey you, where are taking the firewood?

- (29) yá-g dā wa le a ngō ró
 VOL-2SG go village what PREP place DEM:F
“Where do you want to go from here?”

If the questioned referent is time then the forms *sé le* (day what) or *saka le* (time what) are used. The corpus only contains instances of the former. In the next example *sé le* is the object of the locative preposition *a*.

- (30) A: g-ō lū a sé le
 2SG-CMPL come PREP day what
“When did you come?”

- (b) B: nē lū gó ló m só
 1PL:EXCL:CMPL come with child MOD:M:POSS:2SG:F DET:M
“I came with your son”

If the questioned referent is represented pronominally, then the forms *e* (3SG:M/3PL) and *no* (3SG:F) are used before the marker *le*. These pronominal forms can refer to humans or non-humans as shown below. In this first example, the pronoun refers to a human referent. The questioned element is the verbless clause complement.

- (31) A: [sabâ n-gó só]_{vcs} [e le]_{vcc}
 friend MOD:M-POSS:2SG:M DET:M 3SG:M what
“Who is your friend?”

- (b) **B:** ení nda só
 so.and.so DEM:M DET:M
 “(It’s) so and so”

In this example the pronoun refers to a non-human referent. The questioned element is again the verbless clause complement.

- (32) aro [no 1 gay dó]_{VCS} [no le]_{VCC}
 CONJ 3SG:F NMOD:F first DET:F 3SG:F what
 Then what is the first one?

23.2.3 *he* ‘what’

The interrogative term *he* ‘what’ is only used in three contexts: (i) following a nominal reference to concrete things (*wa* (thing:CONC:PL)⁴), (ii) as the complement in the locative copula construction, (iii) following the marker *la* (MMR) when questioning the means/manner/reason for the situation of a clause.⁵ Each of these is addressed in turn.

If the questioned referent is concrete things then the form *wa he* (thing:CONC:PL what) is used. In this next example the questioned element is the direct object of the clause.

- (33) aro ne fo kən **wa** **he**
 CONJ NEUT:1PL:EXCL give:APPL 2SG:M:IO thing:CONC:PL what
 Then what should we give to you?

⁴ The term *wa* (thing:CONC:PL) should not be confused with *wa* (village).

⁵ I haven’t been able to determine the meaning of *la*. One language consultant suggested it might be a shortened form of *lābār* ‘news, words, information’ (ultimately borrowed from Arabic). It only occurs in the interrogative context in questioning either means, manner, or reason. I have therefore glossed it MMR as a mnemonic device. It corresponds with the marker *do* (MMR) which is used in non-interrogative contexts (cf. section 19.2)

The interrogative term *he* can also function as a complement of the locative copula construction in order to question the location of the referent of the copula subject. However, in this case, the locative copula has only two forms (and not three, as described in section 21.4).

The relevant forms are given in the following table.⁶

Function	Form	Meaning
Masculine	<i>nda</i>	be at
Non-masculine	<i>nde</i>	

Table 23.1 Locative copula forms in interrogative context

Generally, in the grammar of Makary Kotoko, if plural coding is not distinct from the coding for either masculine or feminine, then plural coding is the same as masculine coding, creating a feminine/non-feminine distinction. In this case, however, plural coding is the same as feminine coding, creating a masculine/non-masculine distinction.

The function of *he* as the locative copula complement to question the location of the referent of the copula subject is similar to the use of *ngō le* (place what) or *wa le* (village what) described in the section above. Compare the next two examples that come from the same text. Note that both are instances of the locative copula construction with the same copula subject (*fú* ‘meat’), having masculine gender. For the first, the copula complement is the interrogative term *he* ‘what’, for the second the copula complement is the expression *ngō le* (place what).

⁶ The non-masculine form is used for feminine and plural subjects but there are no examples with a plural subject in the corpus.

- (34) [ʃú só]_{CS} **nda** [he]_{CC}
 meat DET:M be.at:M what
Where is the meat?

- (35) tó [ʃú só]_{CS} **nda** [ngō le]_{CC}
 2SG:F:IND meat DET:M be.at:M place what
Hey you, where's the meat?

Likewise, compare the next two examples. In both, the copula subject is of feminine gender. The copula subject is postposed in the second example. In the first example, the copula complement is the interrogative term *he* ‘what’. In the second it is *wa le* (village what).

- (36) [ló l ārfu dó]_{CS} **nde** [he]_{CC}
 child NMOD:F elephant DET:F be.at:F what
Where is elephant's daughter?

- (37) n-ō ts'āga ta ta ndá **ndwa** [wa le]_{CC}
 3SG:F-CMPL stand IDEO IDEO INTERJ be.at:F village what
She₁ got up (and ran quickly, saying): “Hey, where is she₂,

- (b) [mā [ro n-ō ha rə kurkûn]_{RC} dó]_{CS}
 woman MOD:F 3SG:F-CMPL do:APPL 3SG:M:IO medicine DET:F
the woman₂ that healed him?”

Both paired examples illustrate an overlap in function between the two means of questioning location.

The interrogative term *he* ‘what’ as the locative copula complement can also be used to question, not where the referent of the copula subject is, but how the referent is doing. This is used frequently in greetings, generally to refer to someone other than the addressee – that is, regarding some third party.

- (38) [abána n maʃi]_{CS} **nda** [he]_{CC}
 paternal.uncle MOD:M:POSS:2PL hyena be.at:M what
How is your uncle hyena doing?

If the speaker wants to question the means/manner or reason for the situation described by the clause, then the form *la he* (MMR what) is used. It generally occurs clause-finally, as shown in the next two examples.

- (39) iyo əl mbîn aro í sī **la he**
 okay NEUT:3SG:F be.good CONJ IRR:1PL:INCL take MMR what
Alright, good, then how are we going to take (it)?

- (40) nəmân dó n-ō bō ho **la he**
 money DET:F 3SG:F-CMPL discover L.P. MMR what
How was the money discovered?

When *la he* is used to question reason it quite often occurs in a negative context, as shown below.

- (41) u ká rə wa **la he**
 NEUT:1SG hit 3SG:M:DO NEG MMR what
Why shouldn't I hit him?

It need not be in a negative context, though, as this next example shows.

- (42) blō [n ā ha kən hêr
 man MOD:M 3SG:M:CMPL do:APPL 2SG:M:IO good.act
Someone who does something nice for you

- (b) gara nyi ró]_{RC} só
 like thing:ABSTR DEM:F DET:M
like that,

- (c) gáko dó gə le gó-n wa yó la he
 front DET:F NEUT:2SG cut PREP-3SG:M neck L.P. MMR what
why would you slit his throat?

23.2.4 wadí ‘what’

The function of the interrogative term *wadí* ‘what’ is to question terms other than those questioned by *le* and *he*. That is, *wadí* covers the domains not covered by *le* and *he*. Though this seems like a vast domain to cover, it only occurs with the following eight nouns in the corpus:

dalíl ‘solution, means’, *kída* ‘work’, *hāl* ‘act’, *sóbōbu* ‘curse’, *amsó* ‘word, problem’, *fārgū* ‘illness, disease’, *fóra* ‘solution’, *áǝābu* ‘surprise’. The next two examples provide illustration.

In this example it questions the referent of the direct object of the clause.

- (43) tó ndá-g hən kída wadí
 2SG:F:IND INCMPL-2SG do work what
What work do you do?

Here it questions the referent of the locative copula subject. Note that it follows the possessive determiner.

- (44) [amsó n-gó wadí]_{CS} nda [lə]_{CC} k'o
 word MOD:M-POSS:2SG:M what be.at:M PRO still
What do you still have to say?
(lit. what word of yours exists still)

The interrogative terms *le*, *he*, and *wadí* are similar in function though each questions referents from different domains. Another aspect that sets *wadí* apart from *le* and *he* is the ordering of the possessive determiner and the interrogative term relative to each other. As noted

in the example immediately above, the possessive determiner precedes *wadí*. With *le* and *he*, on the other hand, the possessive determiner follows the interrogative term, as shown in the next two examples. In the following example, the questioned term is the object of the locative preposition.

- (45) əl ka n a **wa** **le** ro-gó-də
 NEUT:3SG:F find 1SG:DO PREP village what MOD:F-POSS-3SG:F
Where will she find me?
(lit. she find me a village what of hers)

In the following example the questioned element is the subject of the locative copula construction.

- (46) [**wa** **he** n-gó-də]_{CS} nde [lə]_{CC}
 thing:CONC:PL what MOD:PL-POSS-3SG:F be.at:PL PRO
What things of hers are there

- (b) gí tá-w de yó wa
 COMP PROH-1SG open L.P. NEG
that I'm not allowed to open it (i.e., the clay jar)?

The fact that the interrogative terms *le* and *he* precede the possessive determiner, which is generally the first modifier within the noun phrase, suggests a closer link between these interrogative terms and the noun they modify than between *wadí* and the noun it modifies.

23.2.5 garo ‘how much, how many’

The function of the interrogative term *garo* ‘how much/many’ is to question the quantity/amount of the referent of the noun it modifies. In the next example it is the

complement in the juxtaposition construction. It is questioning how many clever tricks the addressee has. The reply in line (b) gives evidence for the fact that it questions quantity/amount since the reply is *hamsîn* ‘fifty’.

(47) **A:** [ánkal n-gó só]_{VCS} [gáro]_{VCC}
 clever.trick MOD:M-POSS:2SG:M DET:M how.many
How many clever tricks do you have?

(b) **B:** [ánkal n-g-u só]_{VCS} [hamsîn]_{VCC}
 clever.trick MOD:M-POSS-1SG DET:M fifty
I have fifty clever tricks

It can also function like a noun, occurring as the modifying noun in the noun-noun construction, shown in the next example.

(48) **A:** [hásī ro-ngó dó]_{VCS} [dó 1 gáro]_{VCC}
 speed MOD:F-POSS:2SG:M DET:F 3SG:F:IND NMOD:F how.many
How many speeds do you have?

(b) **B:** [hásī ro-g-u dó]_{VCS} [dó 1 gokúro]_{VCC}
 speed MOD:F-POSS-1SG DET:F 3SG:F:IND NMOD:F three
I have three speeds

23.2.6 *hāmo* ‘be wrong?’

The verb *hāmo* seems to have an interrogative notion as a component part of its meaning since clauses in which it occurs are understood as questions but no interrogative marker occurs in the clause. This verb conveys the idea that what the subject of the verb did, or

the situation that the subject is in, is viewed as a bad thing.⁷ It only occurs with the subject marker in the neutral form (but with any person). The next two examples illustrate the use of this verb. This next example can be compared with example (27) above. In both situations the speaker is asking why someone has come. In (27) above, it is a question simply asking for information. In (49) below, it also codes that the speaker is not happy that the person has come.

- (49) tó gə hāmo g-ō lū wo ro dó
 2SG:F:IND NEUT:2SG be.wrong 2SG-CMPL come village DEM:F DET:F
Why have you come to this village?
(lit. what's wrong with you, you came to this village?)

In this next example, *hāmo* occurs in indirectly reported speech.

- (50) w-ō gə rə gí hâl nda só
 1SG:CMPL say 3SG:M:IO COMP action DEM:M DET:M
I asked him, this act
- (b) a hāmo a hñn
 NEUT:3SG:M be.wrong NEUT:3SG:M do
why did he do (it)?

23.3 Summary

I have presented issues related to interrogatives in this section. I dealt first with polar questions and the clause final marker *wo*. I showed that intonation could also be used to code polar questions, primarily seeking confirmation for what has just been said. The tag question marker *wá* is used to seek confirmation for something the speaker believes to be true. I also

⁷ The form of this verb *hāmo* (CaCo) is exceptional. It is possible that it is morphologically complex. One tentative derivation is that *hā* is the applicative form of *hñn* ‘do’ and *mo* is the first person plural inclusive indirect object pronoun. If this is correct, this expression might have originally meant something like ‘Why is S doing (this) to us?’.

presented how alternative questions were formed. Following the discussion of polar questions, I presented content questions, noting the functions of the five interrogative terms used to question constituents of the clause. The term *yagí* was limited to human referents. The marker *le* questioned terms referring to basic ontological categories of the language: a female referent, a concrete thing, an abstract thing, location, and time. The marker *he* was used to question plural references to concrete things, location, and means/manner/reason. The interrogative marker *wadí* questioned all other elements. The term *garo* is used to question quantity/amount. Finally I presented the ‘interrogative’ verb *hāmo* ‘be wrong?’.

24 Imperatives and Commands

In this section I describe how commands, requests, and pleas are made in Makary Kotoko. I begin with a brief word on terminology. I use the term ‘imperative’ in two ways: (i) as a general term regarding commands, requests, and pleas, and (ii) referring to specific forms whose function is to express commands, requests, and pleas. In Makary Kotoko, these would be limited to the prohibitives (i.e., negative imperatives), the 2SG imperatives (which occur without a subject marker), and a handful of (exceptional) imperative forms for the 1PL:INCL and 2PL. All other forms used to convey commands have other functions as well. A description of prohibitives is given in section 13.5 within the discussion of aspect/mode coding, so I leave them out of the focus of the discussion here.

I address the following topics: (i) the 2SG imperative (with no subject marker), (ii) 1PL:INCL and 2PL imperative verb forms for a handful of frequently occurring verbs, (iii) borrowed verbs used only in commands, (iv) the use of different aspects/modes to code commands, (v) reporting commands, (vi) conjoining commands, (vii) the intensifier *mo* used uniquely in imperative contexts, and (viii) the use of commands in consequence clauses.

24.1 Regarding 2SG imperatives

Verb forms are obligatorily preceded by a subject marker which also codes for aspect and mode. The only exception to that, besides nominalizations of verb forms, is the 2SG imperative which can be identified by the absence of the subject marker. Consider the first line of the following example

where the complementizer *gí*, introducing the clause of directly reported speech, is immediately followed by the verb form.

(1) əl gə rə gí **sā** tən
 NEUT:3SG:F say 3SG:M:IO COMP IMP:2SG:sit ground
She said to him, “Sit down,

(b) lo n-gə yá ro-gá-ne
 child MOD:M-POSS mother MOD:F-POSS-1PL:EXCL
brother”

The 2SG imperative form of the verb is not formally different from the verb root for all verbs except the three given in the table below. There is a consistent HL tone pattern on the exceptional imperative forms.

Root form	IMP:2SG	Gloss
lū	álu	<i>come</i>
ndə	ndə / nándə	<i>see</i>
i	i / índa	<i>snatch</i>

Table 24.1 Irregular 2SG imperative forms

Note that for *ndə* ‘see’ and *i* ‘snatch’, both forms listed in the second column occur in the corpus as imperatives.

24.2 Regarding 1PL:INCL and 2PL imperatives

There is a short list of about a half dozen verbs which have an imperative verb form for the 1PL:INCL and 2PL.¹ These are all fairly common verbs. They are most often used by older speakers while younger speakers use the ‘regular’ forms (i.e., the neutral aspect subject marker with the verb

¹ Cf. Mahamat 2005:81-83 for additional examples.

root). Though there are some idiosyncratic variations depending on the structure of the verb root (cf. in particular (1) and (2)), the general pattern for the formation of this group of imperative forms is the addition of the suffix /-o/ to the end of the verb root (replacing the root final vowel if there is one (cf. (3) and (4)), and the assimilation of the vowel of the verb root to the suffixed vowel. In passing, note the /n/ → [r] alternation for verbs ending in /n/ (cf. (5) and (6)). The presence/absence of the neutral aspect subject marker for the 2PL varies a good deal between speakers.

	Base form	IMP:1PL:INCL	IMP:2PL	Gloss
(1)	lū	m loró	loró	<i>come</i>
(2)	dā	m do	do	<i>go</i>
(3)	ts'āga	m ts'ogo	(we) ts'ogo	<i>get up</i>
(4)	fəlá	m folo	(we) folo	<i>play</i>
(5)	hān	m horo	(we) horo	<i>do</i>
(6)	mban	m mboro	we mboro	<i>wash</i>
(7)	sām	m somo	we somo	<i>eat</i>

Table 24.2 Irregular 1PL:INCL and 2PL imperative forms

The following example illustrates a couple of these imperative forms.

IMP:2PL of *ts'āga* 'get up' and *dā* 'go'

- (2) k'ani ā gə sélé yó gí ts'ogo do ní
 CONJ 3SG:M:CMPL say bird:PL DET:PL COMP IMP:2PL:get.up IMP:2PL:go L.P.
Then he said to the birds, "Get up (and) go!"

The absence of the neutral aspect 2PL subject marker for the imperative form for *dā* 'go', shown in example (2) above, helps maintain the contrast between this verb and *do* 'take' when used in a command, as seen in the next example.

- (3) k'ani ā gə dan gí **we do** n
 CONJ 3SG:M:CMPL say 3PL:IO COMP NEUT:2PL take 1SG:IO
Then he said to them, "Please take me"

- (b) gə sabâ n-g-u nda só ho mo
 PREP friend MOD:M-POSS-1SG DEM:M DET:M L.P. IMP:INTENS
to that friend of mine"

24.3 Borrowed verbs used only in commands

Makary Kotoko has borrowed the verb *yála* 'go' from Arabic. In Makary Kotoko this verb is only used as an imperative and applies to second person, irrespective of number, as illustrated in the next two examples.

- (4) lo n-g-u **yála** ts'āga
 child MOD:M-POSS-1SG IMP:2:go IMP:2SG:get.up
My son, get up and go

- (5) só ro so k'ani a gə dan gí **yála**
 day MOD:F NONSPEC:F CONJ NEUT:3SG:M say 3PL:IO COMP IMP:2:go
One day he said to them, "Go!"

Another Arabic verb that is borrowed and only occurs as a 2PL imperative is *sa* 'be quiet'. This is quite often used by the town crier to silence a large assembly before the sultan is about to speak.

- (6) k'ani ā gə mēgə yó gí **sa**
 CONJ 3SG:M:CMPL say people DET:PL COMP IMP:2PL:be.quiet
Then he said to the people, "Be quiet!"

24.4 Commands using other aspects/modes

Generally, only the 2SG has a distinct imperative form – distinct, that is, by the absence of the subject marker. For all other persons, the neutral aspect form of the subject marker is used when

expressing a command. Context is used to determine when the neutral form is understood as a command. This is shown for the 1PL:INCL, 2PL, and 3SG:M in the next three examples, respectively.

1PL:INCL

- (7) ká si gí u bā hé aro m gá bələm
 IMP:2SG:stop REFL COMP NEUT:1SG tie L.P. CONJ NEUT:1PL:INCL fight again
Stop so that I can tie up (my belt) then let's fight again

2PL

- (8) kída-e n yó we ha lə zərká
 work-PL MOD:PL:POSS:2PL DET:PL NEUT:2PL do:APPL PRO addition
Your work, add to it

When a command is to be given to a group of people, but is to be understood distributively (i.e., applying to each member of the group), the 3SG:M subject marker can be used. The context of this next story is that a group of animals (lion, snake, leopard, and hyena) has decided to build a town together. Upon completion of the town, the lion calls the others together so that each one tells the others what he doesn't them to do to him.

3SG:M

- (9) yagí má hâl [ro a yá gó gí
 who FOC act MOD:F NEUT:3SG:M want PREP COMP
Everyone should tell the actions that they don't want
- (b) tá-y ha rə wa]_{RC} dó a kō ho
 PROH-3PL do:APPL 3SG:M:IO NEG DET:F NEUT:3SG:M tell L.P.
others to do to them

Commands can be conveyed using other aspects/modes as well. In the next example the final clause of line (b) is in the irrealis mode but is understood as a command. The context of the story is that

a dying man is talking to his daughter-in-law, telling her that when her husband returns, she must tell him the advice that her father-in-law is about to give her.

- (10) wási [n ndá-w fo to]_{RC} só
 advice MOD:M INCMPL-1SG give:APPL 2SG:F:IO DET:M
The advice that I'm about to give you,

- (b) wi-sə m ā lū aro **mó-g** gə rə
 husband-LINK MOD:M:POSS:2SG:F 3SG:M:CMPL come CONJ IRR-2SG say 3SG:M:IO
when your husband comes (home), you'll tell him (it)

When a command is to be given to a group of people and is to be understood collectively (i.e., applying to the group as a whole), the 3PL subject marker can be used. This is seen at the end of the line in the next example. The subject marker is in the incompletive aspect but the clause is understood as a command. The context of this example is that a young sultan, feeling threatened by the wisdom of older men, decrees that all old people must be killed.

- (11) w-ō yá n gí gǝlk'ə lāke só **ndá-y** la rə
 1SG-CMPL want PREP:2PL COMP old:PL each DET:M INCMPL-3PL kill 3SG:M:DO
I wanted you because each old person must be killed

24.5 Reporting commands

The form used for reporting a command varies depending upon who is doing the reporting. If the person who was the addressee of the original command is the reporter, then the neutral aspect 1SG subject marker is used, as shown at the beginning of lines (b) and (c) in the following example.

- (12) yá ro-gé-ne n-ō gə n gí
 mother MOD:F-POSS-1PL:EXCL 3SG:F-CMPL say 1SG:IO COMP
My mother told me

- (b) **u** dǎgəsə wahíe nde yó
 NEUT:1SG remove.from.stem grains DEM:PL DET:PL
to remove these grains from their stems

- (c) aro **u** díŋ'i sǎrāngí u dǎ ts'e
 CONJ NEUT:1SG pound before NEUT:1SG go outside
then pound (them) before I could go outside

If the person reporting the command is someone other than the original addressee, then the neutral aspect 3SG subject marker is used, as illustrated below.

- (13) dǎmo yígǎ da w-ō gə rə gí **a** dō
 sheep only CONTR 1SG-CMPL say 3SG:M:IO COMP NEUT:3SG:M bring
It's was only a sheep that I told him to bring

If the original command was given in the plural, the reported command makes use of the neutral aspect 3PL subject marker, as shown below.

- (14) dan dē ā gə dan gí
 3SG:M:IND S.R. 3SG:M:CMPL say 3PL:IO COMP
But he told them

- (b) **i** do rə ní
 NEUT:3PL take 3SG:M:IO S.R.
to take him away

24.6 Conjoining commands

There are three ways in the corpus by which commands are conjoined: (i) asyndetic parataxis, (ii) using the sequential marker *aro*, which is also used in non-imperative contexts (and described more

fully in section 29.2.2), and (iii) using the conjunction *so*, which only occurs in the imperative context.

These means can also co-occur within a series of commands. Each of these is illustrated in turn.

24.6.1 *Asyndetic parataxis of commands*

This means of conjoining commands is the most frequent of the three. It is used particularly when the series of commands constitutes components of a complex event or a series of related events.

Consider the example below which uses the 2SG imperative at the beginning of each of the four lines of the example. The context of this story is that a father is giving his son advice on the four types of friends he should have.

(15) sī lo sə wo do sabâ
 IMP:2SG:take child NMOD:M village as friend
Take a child of the village as a friend

(b) sī lo sə məkír-e do sabâ
 IMP:2SG:take child NMOD:M poor-PL as friend
Take a commoner as a friend

(c) sī məkîn [n ā ka wa mblîn]_{RC} do sabâ
 IMP:2SG:take poor MOD:M 3SG:M:CMPL find thing:PL:CONC village as friend
Take a commoner that has recently become rich as a friend

(d) sī bërba sə fā-e do sabâ
 IMP:2SG:take rich NMOD:M year-PL as friend
Take a wealthy man as a friend

24.6.2 *Conjoining commands with aro*

Commands can also be joined using the sequential marker *aro*, as shown below.

Conjoined 1PL:INCL commands using *aro*

- (16) ho dó m dǎwo do aro m i ga
 house DET:F NEUT:1PL:INCL buy PRO CONJ NEUT:1PL:INCL put mouth
Let's sell the house and eat (something) (from the profits of the sale of the home)

Line (b) of the following example illustrates the combination of using the sequential marker *aro* to conjoin commands (between the first and second clause) and the use of asyndetic parataxis to conjoin commands (between the second and third clause).

- (17) kálēw nda só use dó g-ō sē aro
 dog DEM:M DET:M food DET:F 2SG-CMPL prepare.food CONJ
That dog, the food, when you've prepared (it) then

- (b) la rə aro dǎ amé dǎ gǎ-n he
 IMP:2SG:cut 3SG:M:IO CONJ IMP:2SG:draw water IMP:2SG:put PREP-3SG:M L.P.
give him (some), draw water, put (it) next to him

24.6.3 Conjoining commands with *so*

Makary Kotoko has a special conjunction which is only used in the imperative context. It conveys the idea that the imperatives are to be understood as a request as opposed to a command. This is illustrated in the next two examples. In this example, a sultan is offering a parting gift to a visitor. The two imperative clauses are conjoined with *so*. The sultan is not commanding the visitor to take the proposed gift. In fact, the visitor refuses the gift of the sultan's hat for another gift instead.

- (18) i sǎgwá ro dó so dīē gó lə do kásí
 IMP:2SG:take hat DEM:F DET:F IMP:CONJ IMP:2SG:travel with PRO as gift
(What if you were to) take that hat as a gift and go

In this example, a crocodile that is stranded on dry land is soliciting the help of a camel rider to take him to some water. Note that the second and third imperatives are conjoined asyndetically.

(19) sí n ho **so** dā ní
 IMP:2SG:pull 1SG:DO L.P. IMP:CONJ IMP:2SG:go L.P.
(Please) take me and go

(b) h́ n gə amé he
 IMP:2SG:put 1SG:DO PREP water L.P.
put me in the water

In this last example the conjunctions *so* and *aro* are used in a sequence of conjoined imperatives.

(20) i **so** do ho **aro** álu
 IMP:2SG:take IMP:CONJ IMP:2SG:take.to house CONJ IMP:2SG:come
Please take (it from me) and take it to the house then come

24.7 Imperative intensifier

Makary Kotoko has a clause-final intensifying marker, *mo* (IMP:INTENS), which is used exclusively in imperative contexts. The discourse effect of intensifying the imperative depends upon the context in which it occurs – that is, it depends upon the social status of the speaker and the addressee, and the situation in which the imperative is used. In most instances within the corpus, the use of *mo* renders the imperative a plea. In others, the imperative can be understood as a strong command.

The context of the following example is that a handicapped person is asking someone else to bathe him. He makes use of the intensifying marker after a series of imperatives so that his imperatives are understood as a plea.

- (21) a gə rə gí
 NEUT:3SG:M say 3SG:M:IO COMP
 He said to him,

- (b) álu sī n mban n **mo**
 IMP:2SG:come IMP:2SG:take 1SG:DO IMP:2SG:wash 1SG:DO IMP:INTENS
 “Please come, take me and bathe me.”

The next example occurs later in the same story. In the first line, the handicapped person is asking a different person, a woman, to bathe him. He makes use of the neutral aspect form of the subject marker for his request. The woman replies with an imperative which is intensified by the marker *mo*. Only the handicapped person and the woman are present. The imperative couldn't be addressed to the handicapped person since she is talking *about* him (to no one in particular), not *to* him. The use of *mo* is thus not to render the imperative a plea as it was above, but to intensify her feelings about being asked to bathe the handicapped man. She goes on in the story to say that he smells and that she won't bathe him.

- (22) **A:** gə sī n gə mban n wá
 NEUT:2SG take 1SG:DO NEUT:2SG wash 1SG:DO TAG
 “(Won't you) take me and bathe me?”

- (b) **B:** ndə rə **mo** msī sūre
 IMP:2SG:see 3SG:M:DO IMP:INTENS man.of craziness
 “Just look at him, (the) fool”

The next pair of examples is interesting regarding the function of *mo*. They are taken from the same story. The context of the story is that a man accuses his wife of cheating on him. When the

accusation is made, she replies in the imperative (specifically, the prohibitive) using the intensifying marker to tell him not to falsely accuse her of committing adultery.

- (23) aro ndá-w hən wa dó
 CONJ INCMPL-1SG do NEG CONJ
I'm not doing it

- (b) tá-g ɓa g-u ho wa mo
 PROH-2SG tie PREP-1SG L.P. NEG IMP:INTENS
so please don't accuse me (of it)

At the end of the story she reports back to her husband what she had told him earlier. In this case she doesn't use the intensifier with the prohibitive since she is simply reporting what she had previously said (and not making a plea at this point).

- (24) w-ō gə kən gí ndá-w hən nzónā wa dó
 1SG-CMPL say 2SG:M:IO COMP INCMPL-1SG do adultery NEG CONJ
I told you I wasn't committing adultery and

- (b) tá-g i n ngwən dó wa
 PROH-2SG seize 1SG:DO stomach DET:F NEG
that you shouldn't accuse me of it

24.8 Commands in consequence clauses

There are two markers which code consequence: *kanía* 'therefore' and *təmo* 'then'. In a number of instances in the corpus, the clause coded with one of these markers is in the imperative. The speaker has previously laid out a situation to the addressee (usually in the immediately preceding clause) and then they give an imperative as the consequence of the situation described.

24.8.1 *kanía* ‘therefore’

The basic structure for the use of *kanía* is: **CLAUSE₁, *kanía* CLAUSE₂**. CLAUSE₂ expresses the consequence (and the comma after CLAUSE₁ indicates a slight pause before the clause introduced with *kanía*). In the majority of instances of the use of *kanía* in the corpus – over two thirds of the time – the consequence clause is in the imperative (or understood by context as a command).² This is illustrated in line (b) of the following example (where the prohibitive occurs in the consequence clause):

- (25) [yá ro-gé-ne dó]_{VCS} [muɗan]_{VCC} əl tágə mēgə
 mother MOD:F-POSS-1PL:EXCL DET:F cannibal NEUT:3SG:F eat people
My mother is a cannibal, she eats people

- (b) **kanía** tá-g kadé n wa
 therefore PROH-2SG follow 1SG:DO NEG
so don't follow me (to where she is)

24.8.2 *təmo* ‘then’

The marker *təmo* (then) also codes consequence. The clause in which it occurs is almost always in the imperative (or expressing a command with another aspect/mode). While *kanía* occurs clause initially, *təmo* occurs clause finally, as illustrated in the next example at the end of line (e). The context of this example is that a crafty boy has killed one of the billy goats of a group of sleeping herdsmen and hidden the meat in their bags. He then wakes the herdsmen up and accuses them of killing *his* billy goat. They reply by stating they just woke up and didn't see what happened (thus affirming their innocence). He tells them to open up their bags (to see if they don't find goat meat in them).

² See section 29.17 for a description of the uses of *kanía* ‘therefore’ in non-imperative contexts.

- (26) **A:** gə hāmo
 NEUT:2SG be.wrong
 “*What’s wrong?*”
- (b) **B:** wē la g-u fāskā
 2PL:CMPL kill PREP-1SG billy.goat
 “*You killed my billy goat*”
- (c) **A:** dǎ-n he n-gá-ne nda só
 sleep-INF L.P. MOD:M-POSS-1PL:EXCL DEM:M DET:M
 “*We just woke up*
 (*lit. that sleep of ours*)”
- (d) **A:** nē ndə wa dəge
 1PL:EXCL:CMPL see NEG INTENS
 “*We didn’t see (what happened)*”
- (e) **B:** aro we fal gwáne n yó təmo
 CONJ NEUT:2PL untie belongings MOD:PL:POSS:2PL DET:PL then
 “*Open up your bags then*”

Although almost all instances of *təmo* in the corpus are in imperative clauses, there are two instances where it occurs in an incompletive clause with a 1SG subject. One of these is given below. The context of this story is that a rabbit has hidden inside the lair of a lioness along with her nursing lion cubs. When the lioness comes to nurse her children, the rabbit drinks up her milk instead. After a while, the lioness realizes that someone besides her children is drinking her milk and she orders the rabbit to come out of the lair.

- (27) **A:** tó da ndá-g sē ēni n-g-u só
 2SG:F:IND CONTR INCMPL-2SG drink milk MOD:M-POSS-1SG DET:M
 “*You’re the one that’s drinking my milk*”

(b) **A:** aro le n-g-u ndá-y hyû
 CONJ child:PL MOD:PL-POSS-1SG INCMPL-3PL be.skinny
and my children are growing skinny (because of it)”

(c) **B:** iyo aro ndá-w lā ts'e t̄mo
 okay CONJ INCMPL-1SG come outside then
“Okay, I’m coming out then”

24.9 Summary

In this chapter I have presented the coding means used to express commands, requests, and pleas. The 2SG imperative forms are distinct from the forms for other persons by the absence of the subject marker. There exist 1PL:INCL and 2PL imperative forms for a small group of frequently occurring verbs. With the appropriate context, irrealis and incompletive forms can also be used to code commands. Commands can be conjoined in three different ways, the third of which is by using the conjunction *so* which is unique to the imperative context and which attenuates the command to a request. The intensifier *mo* is also unique to the imperative context and can render an imperative a plea or a strong command depending upon the context in which it is used. It was also noted that imperatives occur quite frequently in consequence clauses coded by the markers *kanía* ‘therefore’ and *t̄mo* ‘then’.

25 Resumptive pronouns for pre-subject noun phrases and heads of relative clauses

There are two areas in the grammar where resumptive pronouns may be used: (i) when a noun phrase is placed in pre-subject position for pragmatic reasons, there may be a resumptive pronoun in the canonical position for that argument in the clause, and (ii) when a head noun is modified by a relative clause, there may be a resumptive pronoun in the canonical position for that argument within the relative clause. The factors which determine the use of a resumptive pronoun are the same for both situations. In this section, I will use the term ‘noun phrase’ (in quotes) to refer to both ‘the noun phrase in pre-subject position and the head noun of a relative clause’ in order to avoid repeated use of that lengthy expression. Whether there is a resumptive pronoun in the canonical position for the ‘noun phrase’ is determined by three factors.

One factor is the argument structure of the verb of the clause. There are two cases to be considered in this regard. First, if a verb is transitive in the sense used here (in that it requires the presence of an argument in the canonical position for that argument), then there will of course be a resumptive pronoun in the canonical position for that argument. That is, the presence of the resumptive pronoun is required by the argument structure of the verb. Second, some verbs take a locative complement as part of their argument structure. For those verbs, then, there will be a resumptive pronoun in the canonical position for the expression of location when the ‘noun phrase’ refers to a location.

A second factor is the grammatical/semantic function of the ‘noun phrase’ in the clause. There are two cases to be considered here as well. First, if the ‘noun phrase’ corresponds with the indirect object of the clause, there is always a resumptive pronoun in the canonical indirect object position after the verb. Second, if the ‘noun phrase’ corresponds with either (i) the direct object (for ambitransitive verbs) or (ii) the possessor of one of the arguments of the clause, and the referent of the ‘noun phrase’ is (living) human (or anthropomorphized entity), then there is always a resumptive pronoun in the canonical position. If, however, the referent of the ‘noun phrase’ is not human (or dead), then there is no resumptive pronoun in the canonical position. That is, for the direct object of ambitransitive verbs and for the possessor, the nature of the referent of the ‘noun phrase’ (i.e., its humanness) must be taken into consideration.

A third factor, the ongoing saliency of the referent of the ‘noun phrase’ within the discourse, attempts to account for two types of exceptions relative to the ambitransitive verbs mentioned in the second factor. For ambitransitive verbs, there are cases where the ‘noun phrase’ does not refer to a (living) human (or anthropomorphized entity) yet there is a resumptive pronoun in the canonical direct object position. There are also a very small number of cases where the ‘noun phrase’ does refer to a human, yet there is no resumptive pronoun in the canonical direct object position. The ongoing saliency of the referent of the ‘head noun’ within the discourse accounts for both types of exceptions. However, appealing to the ongoing saliency of the referent of the ‘head noun’ within the discourse needs to be

supported by evidence other than my claims of their saliency, which I attempt to do in the relevant section below.

In the sections below, I provide evidence for all three factors in turn. An important point raised by this analysis is that the presence/absence of resumptive pronouns is a complex issue, requiring consideration of factors from within and outside the grammar: argument structure, grammatical/semantic functions, nature of the referent of the ‘noun phrase’, and pragmatic considerations (i.e., the ongoing saliency of the referent of the ‘noun phrase’ within the discourse).

25.1 Argument structure

With respect to argument structure, there are two issues to consider: (i) transitive verbs, and (ii) locative complement taking verbs. I address each in turn.

25.1.1 *Transitive verbs*

If a verb is transitive, and the ‘noun phrase’ corresponds with the direct object of the clause, then there will always be a resumptive pronoun in the canonical direct object position. This is actually the outcome of the definition of transitivity that I am making use of: a transitive verb is one which requires an object in its canonical direct object position. There are a small number of verbs in the language that are transitive by this definition (discussed in section 17.2). In the next two examples, I provide illustration of resumptive pronouns with the transitive verb *ka* ‘find’. In the first there is a pre-subject noun phrase (bolded) with a resumptive pronoun (also bolded, and marked with square brackets and subscripting) in the canonical direct object position.

Pre-subject noun phrase with resumptive pronoun in the canonical direct object position

- (1) a-sá-ró **ɔ̃gi** ro-gə-n dó
 PREP-day-DEM:F thing:CONC MOD:F-POSS-3SG:M DET:F
Today, his thing,

- (b) m-á ka [lɔ̃]_{DO} wa
 IRR-3SG:M find PRO NEG
he won't find it

In this next example, the head noun of the relative clause (*nyi* (thing:ABSTR)) has a resumptive pronoun in the canonical direct object position.

Head noun of relative clause with resumptive pronoun in the canonical direct object position

- (2) **nyi** [ro ē ka [lɔ̃]_{DO}]_{RC} aro ...
 thing:ABSTR MOD:F 3PL:CMPL find PRO CONJ
What they found, then ...

25.1.2 Locative complement taking verbs

A number of verbs take a locative complement as part of their argument structure (discussed in section 17.3). These are generally verbs of motion (e.g. *dā* ‘go (swh)’, *do* ‘take (s.o. swh)’) and verbs of position and change of position (e.g. *sā* ‘sit’, *dā* ‘lie’). If the ‘noun phrase’ corresponds with the location in the clause, and the verb of the clause takes a locative complement, then there will be a resumptive pronoun in the canonical position for the expression of location. This is shown in the next two examples. In this first example, there is a pre-subject noun phrase (bolded) with a resumptive pronoun (bolded, and marked with square brackets and subscripting) in the canonical position for the expression of location.

Pre-subject noun phrase with resumptive pronoun in the canonical position for location

- (3) **ngō** **ro** **dó** g-ō dā n [lə]_{LOC} aro ...
 place DEM:F DET:F 2SG-CMPL put 1SG:IO PRO CONJ
If you put me (down) here, then ...

In this next example, the head noun (*ngō* ‘place’) has a resumptive pronoun in the canonical position for location.

Head noun of relative clause with resumptive pronoun in the canonical position for location

- (4) **ngō** [ro ndá-we dā **lə**]_{RC} dó ...
 place MOD:F INCMPL-2PL lie.down PRO DET:F
Where you lie down, ...

The complement of the locative copula construction is always an expression of location. It is a required component of the construction, so if the ‘noun phrase’ corresponds with the complement of the locative copula there will always be a resumptive pronoun after the copula, as shown below. The pre-subject noun phrase is bolded, as is the resumptive pronoun which occurs in the complement position.

- (5) **hó** **ro-gə** **Kardāma** **dó** [kárná]_{CS} ndwa [lə]_{CC}
 house MOD:F-POSS Kardāma DET:F calf be.at:F PRO
There’s a calf at Kardāma’s house

25.2 Grammatical/semantic function

With respect to grammatical/semantic function, there are three functions to consider: (i) indirect objects, (ii) possessors, and (iii) direct objects of ambitransitive verbs. I address each in turn.

25.2.1 Indirect objects

If the ‘noun phrase’ corresponds with the indirect object of the clause, then there is consistently a resumptive pronoun in the canonical indirect object position. This is illustrated in the next two

examples. In the first there is a pre-subject noun phrase (bolded) with a resumptive pronoun (also bolded, and marked with square brackets and subscripting) in the canonical indirect object position.

Pre-subject noun phrase with resumptive pronoun in the canonical indirect object position

- (6) **ǰá só** fo [rə]_{IO} wa [n i mbîn]_{RC}
 cow DET:M give:APPL 3SG:M:IO thing:CONC:PL MOD:PL NEUT:3PL be.good
Give the cow good things (to eat)

In this next example, the head noun (*séló* ‘bird’) has a resumptive pronoun in the canonical indirect object position.

Head noun of relative clause with resumptive pronoun in the canonical indirect object position

- (7) **séló** [n ndá-y gə [rə]_{IO} gí ulu ulu ɕjanama]_{RC}
 bird MOD:M INCMPL-3PL say 3SG:M:IO COMP ulu ulu janama
bird that they call ‘Ulu Ulu Janama’

25.2.2 Possessors

When the ‘noun phrase’ corresponds with the possessor of one of the arguments of the clause, then, if the possessor is a (living) human (or anthropomorphized entity), there is consistently a resumptive pronoun in the relevant position. If the possessor is non-human, then there is no resumptive pronoun in the relevant position. That is, the nature of the referent (i.e., its humanness) is the determining factor for the presence/absence of a resumptive pronoun for the ‘noun phrase’ which corresponds with the possessor of one of the arguments of the clause. This is illustrated in the next two examples with pre-subject noun phrases. In the first there is a pre-subject noun phrase (bolded) with a human referent. Note that there is a resumptive pronoun (bolded) in the relevant position within the verb phrase.

Human referent for pre-subject noun phrase (with resumptive pronoun)

- (8) **blō** **nda** **só** gə sán wo ro-gə-**n** dó wo
 man DEM:M DET:M NEUT:2SG know language MOD:F-POSS-3SG:M DET:F POL
This man, do you know (how to speak) his language?

In this next example, the pre-subject noun phrase (bolded) has a non-human referent. Note the absence of a resumptive pronoun (noted with a null symbol (\emptyset)) in the relevant position within the clause).

Non-human referent for pre-subject noun phrase (without resumptive pronoun)

- (9) **hóngwó** **ro** **dó** sa n jú n-go \emptyset so
 goat DEM:F DET:F IMP:2SG:prepare.food 1SG:IO meat MOD:M-POSS DET:M
This goat, prepare the meat of (it) for me (to eat)

When the head noun of a relative clause corresponds with the possessor of one of the arguments of the clause, then, if the possessor is human, there is consistently a resumptive pronoun in the relevant position. This is illustrated in the next example, where the head noun of the relative clause (bolded) has a human referent. Note that there is a resumptive pronoun (bolded) in the relevant position within the clause.

Human referent for head noun of relative clause (with resumptive pronoun)

- (10) n-ō fé **blō**
 3SG:F-CMPL call man
She called the man

- (b) [n n-ō do hálbō hó ro-gə-**n**]_{RC} só
 MOD:M 3SG:F-CMPL take shoe house MOD:F-POSS-3SG:M DET:M
hat she had taken the shoe to his house

There are no instances in the corpus with a head noun that refers to a non-human referent whose role in the relative clause is the possessor of one of the arguments of the clause. I believe this is an

accidental gap but will need to conduct more research to determine if such clauses are possible, and if so, whether a resumptive pronoun would occur or not. My hypothesis would be that if the head noun had a non-human referent whose role in the relative clause was the possessor of one of the arguments of the clause, then there would be no resumptive pronoun in the relevant position.

25.2.3 Direct objects of ambitransitive verbs

The majority of verbs in the language are ambitransitive, meaning that they can occur with or without a following direct object (cf. section 17.4). For ambitransitive verbs, if the ‘noun phrase’ corresponds with the direct object of the clause, and if its referent is a (living) human (or anthropomorphized entity) then there is generally a resumptive pronoun in the canonical direct object position. In the next two examples there is a noun phrase in pre-subject position – the first with a human referent, the second with a non-human referent. In both instances, the pre-subject noun phrase corresponds with the direct object of the clause. Both examples contain the ambitransitive verb *sən* ‘know’. Also note that the neutral aspect form occurs in both clauses. Aspect/mode is not a factor in determining the presence/absence of resumptive pronouns.

In this first example, the pre-subject noun phrase (bolded) has a human referent. Note the resumptive pronoun (bolded, and marked with square brackets and subscripting) in the canonical direct object position.

Human referent for pre-subject noun phrase (with resumptive pronoun)

- (11) **mā** **dó** we sɛn [**dó**]_{DO} wá
 woman DET:F NEUT:2PL know 3SG:F:DO TAG
The woman, you know her, don't you?

In this next example there are actually two pre-subject noun phrases (noted with square brackets and subscripted with numerals). The second pre-subject noun phrase (bolded) corresponds with the direct object of the clause. The nature of this argument is non-human. Note the absence of a resumptive pronoun (noted with a null symbol (∅)) in the relevant position within the core).

Non-human referent for pre-subject noun phrase (without resumptive pronoun)

- (12) [lɔ dɔ]₁ [tɔlu sɛ wo ro-gó-dan só]₂
 child DET:F road NMOD:M village MOD:F-POSS-3PL DET:M
The child, the road to their village,

- (b) əl sɛn ∅ lán
 NEUT:3SG:F know completely
she knew (it) well

Note in the two preceding examples that the noun phrases in pre-subject position are marked with the definite determiner. As described in section 6.1.7, this indicates that the referent of that noun phrase is identifiable. This gives evidence that the use of the resumptive pronoun is not a coding means to mark the identifiability of the referent.

The next two examples provide illustration of the same factor within relative clauses. I have illustrated with the ambitransitive verb *hɛn* 'do' in both case. In this first example, the referent of the head noun of the relative clause is human (bolded), and there is a resumptive pronoun (also bolded) in the canonical position within the relative clause.

Human referent for head noun of relative clause (with resumptive pronoun)

- (13) ... u sī **klayaskó** [ro don da
 NEUT:1SG take young.girl MOD:F 1SG:IND CONTR
 (that) I take a young girl that I

- (b) u hōn **dó** do gārəm]_{RC}
 NEUT:1SG do 3SG:F:DO as woman
 have deflowered as (my) wife

In this next example, the head of the relative clause is non-human (bolded) and there is no resumptive pronoun. Again, I have noted with a null symbol where the resumptive pronoun would occur were the right conditions met.

Non-human referent for head noun of relative clause (without resumptive pronoun)

- (14) yá-w básə kən **nyi** [ro g-ō hōn ∅]_{RC} dó
 VOL-1SG reimburse 2SG:M:IO thing:ABSTR MOD:F 2SG-CMPL do DET:F
 I'll pay you back for what you did

I have specified above that the human referent needed to be living for there to be a resumptive pronoun in the canonical position. The validity of this claim is illustrated in this next example, where there is no resumptive pronoun in the matrix for the pre-subject noun phrase (which is bolded and is also modified by a relative clause) referring to someone who is dead. I have noted with a null symbol where the resumptive pronoun would occur were the right conditions met.

Non-living human referent for pre-subject noun phrase (without resumptive pronoun)

- (15) **álgə** [n ā **mādō**]_{RC} só
 person MOD:M 3SG:M:CMPL die DET:M
 The person, that died,

- (b) ā hó Ø ho gó sí dó
 3SG:M:CMPL lift L.P. with tree DET:F
he_k propped (him_i) up against the tree

25.3 Ongoing saliency within the discourse

For the ambitransitive verbs just discussed there are a few exceptions to what was claimed.

These come in two types: (i) there are cases where the referent of the ‘noun phrase’ is not human, yet there is a resumptive pronoun in the canonical direct object position, and (ii) there are cases where the referent of the ‘noun phrase’ is human, yet there is no resumptive pronoun in the canonical direct object position. Considering the first type of exception first, it appears that another factor may condition the use/non-use of a resumptive pronoun: the ongoing saliency of the entity within the discourse. That is, if the referent of the ‘noun phrase’ is of continuing importance within the text, then there is a tendency for there to be a resumptive pronoun in the canonical direct object position. My use of the term ‘saliency’ is comparable to Lichtenberk’s (2000) description of it where he states that “discourse saliency has to do with topichood, focus, contrast, and center of attention, and also with participation in the speech act. A participant that is the topic, focus, in contrast, and/or the center of attention has higher discourse salience than one that is not. And, other things being equal, a participant in the speech act is more salient than a nonparticipant” (Lichtenberk 2000:27).

The following example is from a story about ‘hunger’. A prince, who eats meat every day, wants to know what hunger is like. Hunger is talked about throughout the text and, I propose, remains salient in the discourse. Proof of its saliency is that reference to it occurs four times in (unmarked) pre-

subject position in the short text. As detailed in section 26.1, placing an unmarked noun phrase in pre-subject position is the means of establishing the referent of that noun phrase as the topic of the clause in question. What is compelling is that in all four instances, there is a resumptive pronoun in the canonical direct object position, as shown in the next example. I have bolded the pre-subject noun phrase and the resumptive pronoun (which is marked with square brackets and subscripting).

- (16) abá **skəm** **dó** w-ō ndə [**də**]_{DO} gó nsê n-g-u
 father hunger DET:F 1SG-CMPL see 3SG:F:DO with eye:PL MOD:PL-POSS-1SG
Father, hunger, I have seen it with my (own) eyes

The presence of an ‘exceptional’ resumptive pronoun in the canonical direct object position is more frequent for pre-subject noun phrases than for head nouns of relative clauses. This may, in fact, lend support to my ‘ongoing saliency within the discourse’ proposal since placing a noun phrase in pre-subject position codes pragmatic information (e.g., topic, contrastive focus, switch reference (cf. chapter 26)), thus giving evidence for the saliency of the referent of the pre-subject noun phrase within the discourse.

In this next example, there is a pre-subject noun phrase (bolded) in the first line referring to someone that is dead. As expected, based on the analysis proposed above, there is no resumptive pronoun in the canonical direct object position (noted with a null symbol). In the second line, there is a pre-subject noun phrase (bolded) referring to a (non-anthropomorphized) cow. There is a resumptive pronoun (bolded) in the canonical position. Determining why there is a resumptive pronoun in reference to the cow requires consideration of the larger context. This particular cow is highlighted as being the

most productive cow in the mother's herd. As such, I propose that it is salient within this portion of the discourse.

- (17) **álgə** **de** g-ō la ∅
 person S.R. 2SG-CMPL kill
You killed a person

- (b) **ǰá** **ro-gə** **yá** **ró-n** **de** g-ō la **dó**
 cow MOD:F-POSS mother MOD:F:POSS:2PL S.R. 2SG-CMPL kill 3SG:F:DO
Your mother's cow, you killed it (too)

Ongoing saliency within the discourse may also account for the second type of exceptions: cases where the 'noun phrase' is human, yet there is no resumptive pronoun in the canonical direct object position. In such cases, I propose that the referent is not salient (enough), so no resumptive pronoun is used. In this next example, the head noun of the relative clause is a (living) human (bolded), yet there is no resumptive pronoun in the canonical direct object position within the relative clause (noted with a null symbol). The context of this example is that a young girl is not liked by her step-mother so the girl and her father set off on a journey. The step-mother is mentioned in the beginning of the story but not again.

- (18) **mā** [ro ā sī ∅]_{RC} **dó**
 woman MOD:F 3SG:M:CMPL take DET:F
The woman he took (as his wife)

- (b) əl yá gə ló dó wa
 NEUT:3SG:F want PREP child DET:F NEG
didn't like the child

25.4 Summary

In this chapter I have presented the factors which determine when a resumptive pronoun is used in the canonical position for pre-subject noun phrases and head nouns of relative clauses. The information has been summarized in the following table.

Factor		Resumptive pronoun
Argument structure	Direct object (transitive verbs)	always
	Location (locative complement taking verbs)	always
Grammatical/semantic function	Indirect object	always
	Possessor	for humans
	Direct object (for ambitransitive verbs)	for humans
Salient within the ongoing discourse	Direct object (for ambitransitive verbs)	generally

Table 25.1 Factors for the use of resumptive pronouns

This presentation highlights the fact that grammatical, semantic and pragmatic information need to be taken into consideration to determine the use/non-use of resumptive pronouns. However, the third factor discussed – the ongoing saliency of the referent of the ‘noun phrase’ within the discourse for the use of resumptive pronouns – may in fact subsume the second factor. Humans are quite often salient within the discourse (unless dead?) which would explain why indirect objects (whose referents are very often human) have resumptive pronouns.

26 Information structure

In this chapter I present the categories of information structure (e.g. topic, contrastive focus, switch reference) that are coded in Makary Kotoko. This can be done by placing marked and unmarked noun phrases before the subject marker or situating an unmarked noun phrase after the verb phrase. I call these pre-subject noun phrases and postposed noun phrases, respectively. I avoid the term ‘fronting’ for pre-subject noun phrases for two reasons: (i) the pre-subject noun phrase can be co-referential with the subject marker of the clause. For such noun phrases there is no position after the verb from which they have been ‘fronted’. The position before the subject marker is the only possible position for such noun phrases; and (ii) some pre-subject noun phrases have no grammatical or semantic role in the clause. They have a pragmatic function (coding the referent of the pre-subject noun phrase as the topic of the clause). As such, these noun phrases have not been ‘fronted’ from some other position within the clause.

Noun phrases that occur in pre-subject position can be coded in three primary ways to indicate the pragmatic function of the referent of the noun phrase in the clause: (i) unmarked (with no marker following the noun phrase), (ii) marked with the marker *da*, or (iii) marked with marker *dê*. Three other markers can also occur after a pre-subject noun phrase, but these occur far less frequently. These are (iv) the focus marker *má*, (v) the concessive marker *yahe*, and (vi) the adversative *dámá*. None of these six coding means co-occur on the same pre-subject noun phrase, providing evidence that they are mutually exclusive. This suggests that they are all components of a single coding domain. I propose that

the coding domain involved is that which deals with how information is structured within the discourse. That is, these marked and unmarked pre-subject noun phrases code pragmatic information for the clauses in which they occur, shaping the larger narrative as a whole. By far, the most frequent type of pre-subject noun phrase is that which occurs with no additional coding. I propose that placing an unmarked noun phrase in pre-subject position topicalizes the referent of the noun phrase for that clause. That is, the referent for that noun phrase is marked as being (an aspect of) what the clause is about. This appears to be similar to the analysis of Tourneux & Mahamat (2009a,b) since they refer to unmarked fronted noun phrases as ‘thématisé’.

The marker *da* occurs, on average, about six times per text. I propose that its function is to contrast the referent of the noun phrase that it marks with an open set of other possible referents. Again, this appears to be similar to the analysis of Tourneux & Mahamat (2009b) since they refer to fronted noun phrases marked with *da* as ‘focalisé’. I refer to *da* as a contrastive focus marker. The marker *dè* occurs, on average, about four times per text. I propose that its function is to contrast the referent of the noun phrase that it marks with a closed set of other possible referents. I refer to it tentatively as a switch reference marker. The focus marker *má*, the concessive marker *yahe*, and the adversative *dámá* occur considerably less frequently (each less than once per text) in their function of coding a pre-subject noun phrase. Four of the five markers (*má* excepted) also occur between clauses, indicating that a particular relationship exists between the situations described in those clauses. In terms of the frequency of occurrence in the corpus of these two functions (i.e., (a) marking a pre-subject noun phrase, and (b)

linking clauses), the coding of pre-subject noun phrases is the primary function for the contrastive focus marker *da*, the switch reference marker *dê*, and the focus marker *má*. For the concessive marker *yahe*, the two functions are fairly evenly split within the corpus. For the adversative *dámá* the clause combining function is its primary function with the coding of pre-subject noun phrases being a secondary function. I provide a description of the clause linking functions of the concessive marker *yahe* and the adversative *dámá* in sections 29.8 and 29.9, respectively.

All pre-subject noun phrases (marked and unmarked) follow clause initial conjunctions (if any). As described in section 10.1 and 10.2, temporal and modal adverbs (generally) come clause initially. Pre-subject noun phrases can occur before or after these adverbs (if present). As described in section 10.3, manner adverbs and ideophones (generally) occur clause finally. Postposed noun phrases follow these adverbs (if any) and precede any clause final conjunctions.

A marked or unmarked pre-subject noun phrase can correspond with different grammatical/semantic functions within the clause: subject, direct object, object of a prepositional verb, indirect object, object of a preposition, possessor, location, time, reason, etc. This fact provides evidence that the markers which occur on the pre-subject noun phrases do not code grammatical relations. For those pre-subject noun phrases that correspond with a non-subject function it would be grammatically possible to place the pre-subject noun phrase in its canonical position after the verb. When these types of noun phrases occur in the pre-subject position there may or may not be a resumptive pronoun in the canonical position. The presence or absence of a resumptive pronoun in the canonical position for pre-

subject noun phrases is discussed in chapter 25. Summarily, there is a resumptive pronoun in the canonical position for the pre-subject noun phrase when (i) the argument structure of the (transitive or locative complement taking) verb of the clause requires it, (ii) the pre-subject noun phrase corresponds with the indirect object of the clause, (iii) the pre-subject noun phrase corresponds with the possessor of an argument of the clause, and the referent of the possessor is human, (iv) the pre-subject noun phrase corresponds with the direct object of an ambitransitive verb, and the referent of the direct object is human or has ongoing saliency within the discourse.

I deal with the function of unmarked pre-subject noun phrases first, followed by pre-subject noun phrases marked with the contrastive focus marker *da*, the switch reference marker *dê*, and the focus marker *má*. The focus marker *má* is also used to create forms similar to negative quantifiers and universal quantifiers so I also discuss these briefly in that section. I then describe pre-subject noun phrases marked with the concessive marker *yahé*. This marker is also used to form ‘free choice’ indefinites (cf. Haspelmath 1997:48) so I discuss them briefly in that section as well. I then describe pre-subject noun phrases marked with the adversative *dámá*. I compare and contrast each of these, considering instances in the corpus when there is more than one pre-subject noun phrase and a different type of marking occurs on each one.

Unlike pre-subject noun phrases, postposed noun phrases are always unmarked. I will address postposed noun phrases at the end of the chapter.

26.1 Unmarked pre-subject noun phrases

I propose that, by default, the referent of the subject marker of the clause is interpreted as the topic of the clause in question. It is, however, possible to place an unmarked noun phrase in pre-subject position. I consider this a means of topicalizing the referent of that noun phrase. That is, placing a noun phrase in the pre-subject position is a means of letting the addressee know what the clause in question is about. As noted in the introduction, pre-subject noun phrases can correspond with different grammatical/semantic functions within the clause: subject, direct object, object of a prepositional verb, indirect object, object of a preposition, possessor, location, etc. That is, the unmarked pre-subject noun phrase (i) functions as the topic of the clause in question, and (ii) can correspond with a grammatical/semantic function within the clause, though it need not. In cases when the pre-subject noun phrase has no grammatical/semantic function within the clause, its only function is to indicate what the clause is about. This is in fact compelling evidence in favor of the analysis that unmarked pre-subject noun phrases constitute the topic of the clause in question. An unmarked pre-subject noun phrase with no grammatical/semantic function in the clause is illustrated in the next two examples, where the pre-subject noun phrase is bolded. The context of this first example is that an ostrich has performed a cure on a hyena (removing a bothersome squirrel from his anus). The hyena must now carry out the sacrifice of a thousand-feathered bird in return. The thousand-feathered bird is mentioned in pre-subject position and serves as the topic of the clause. It has no grammatical or semantic function within the clause.

- (1) **séló sə fáskē dúbú só**
 bird NMOD:M feather:PL thousand DET:M
(As for) the bird with a thousand feathers,
- (b) [séló [n a fǝra tó]_{RC}]_{CS} nda [lǝ]_{CC} wo
 bird MOD:M NEUT:3SG:M surpass 2SG:F:DO be.at:M PRO POL
does a bird that surpasses you (in this regard) exist?

In the next example, a hyena has infiltrated a group of donkeys and is carrying a load on his back with the (false) hope of getting some meat for his labor. The topic of the clause, what the hyena wants, occurs in pre-subject position. It has no grammatical or semantic function within the clause.

- (2) **damâ ro-gə-n dó ā só gáko**
 greed MOD:F-POSS-3SG:M DET:F 3SG:M:CMPL enter front
What he wanted was to get out in front
- (b) gí m-á ka lǝ tám
 COMP IRR-3SG:M find PRO quickly
so he would get it (i.e., the meat) quickly

Quite often, the unmarked pre-subject noun phrase will also have a grammatical/semantic function within the clause in addition to its pragmatic function of being the topic of the clause. In the next example, the pre-subject noun phrase is co-referential with the subject marker of the clause. Since I have proposed that the referent of the subject marker is the default topic, placing a noun phrase in pre-subject position which is co-referential with the subject would be a way of reinforcing the referent as the topic of the clause.

Pre-subject noun phrase co-referential with subject marker

- (3) **ló só ā** ʃɪn gə amsó n-gə abá só wa
 child DET:M 3SG:M:CMPL hear PREP word MOD:M-POSS father DET:M NEG
The son didn't listen to the advice of his father

The pre-subject noun phrase corresponds with the direct object of the clause in the following example.

Pre-subject noun phrase functions as direct object of clause

- (4) aro **ságwá dó** tá-g sī wa
 CONJ hat DET:F PROH-2SG take NEG
(As for) the hat, don't choose (it)

In the next example, the conjoined nouns in pre-subject position correspond with the object of the prepositional verb of the clause.

Pre-subject noun phrase functions as object of prepositional verb

- (5) **ngúrdukí gó mapú ē** man gó-dan wo dó
 handicapped with blind 3PL:CMPL leave PREP-3PL village DET:F
A handicapped man and a blind man_i, they_k left them_i, the village

The pre-subject noun phrase corresponds with the indirect object of the clause in the following example.

Pre-subject noun phrase functions as indirect object

- (6) **mēgə n si yó** i gə dan gí ...
 people MOD:PL NONSPEC:PL DET:PL NEUT:3PL say 3PL:IO COMP
The other people_i, they_k told them_i, that ...

The pre-subject noun phrase corresponds with the object of a preposition in the following example.

Pre-subject noun phrase functions as object of a transitive preposition

- (7) **sūre n-gó-də** nda só mǎ-l mādē gó lə
 crazy MOD:M-POSS-3SG:F DEM:M DET:M IRR-3SG:F die with PRO
This mental illness, she'll die with it (i.e., because of it)

Non-verbal predication can also have noun phrases which precede the construction and which function as the topic of the clause, as shown in this next example – an instance of the locative copula construction. The pre-subject noun phrase is co-referential with the locative copula complement.

- (8) **wo** [ro əl hən gokúro]_{RC} **dó** [mā]_{CS} ndwa [lə]_{CC}
 village MOD:F NEUT:3SG:F do three DET:F woman be.at:F PRO
At the third village, there was a woman

It is possible to have more than one (unmarked) pre-subject noun phrase (generally no more than two). In some cases the second pre-subject noun phrase narrows the scope of the topic as given by the first pre-subject noun phrase. This is shown in the next example where the first noun phrase is the possessor of the second. I have noted the pre-subject noun phrases (and resumptive pronouns) using square bracketing and subscripted numbers.

- (9) [**don só**]₁ [mts'afú ro-g-u **dó**]₂
 1SG:IND DET:M tail MOD:F-POSS-1SG DET:F
As for me, my tail,

- (b) tá-y dõ [lə]₂ ensó lə gó dó wa
 PROH-3PL put PRO foot PRO head DET:F NEG
don't step on it

In other cases, the pre-subject noun phrases serve as different (but interrelated) topics for a sequence of clauses. This can be seen in the next example where there are two pre-subject noun phrases in the first clause, referring to a dog and some food, respectively. The second pre-subject noun phrase (referring to the food) is the topic of the first clause. Both pre-subject noun phrases are relevant to the

second clause, and the first pre-subject noun phrase (referring to the dog) is the topic of the final (fourth) clause.

- (10) [kólēw nda só]₁ [use dó]₂ g-ō sē aro
 dog DEM:M DET:M food DET:F 2SG-CMPL prepare.food CONJ
That dog, the food, when you've prepared (it), then

- (b) la [rə]₁ aro da la amé dā gó-[n]₁ he
 IMP:2SG:hit 3SG:M:DO CONJ IMP:2SG:draw water IMP:2SG:put PREP-3SG:M L.P.
feed him, then draw some water, and put (it) by him.

26.2 Pre-subject noun phrases marked with the contrastive focus marker *da*

The function of the marker *da* (CONTR) is to contrast the referent of the pre-subject noun phrase after which it occurs with other possible/potential referents. Quite often, though not necessarily, the other possible referents are from an open set, meaning that the focus is on the referent of the given noun phrase as opposed to a number of other potential referents. The speaker wants to narrow the addressee's attention down to the referent of the pre-subject noun phrase marked with *da*. Having a pre-subject noun phrase marked with *da* (or, in fact, any other marker) does not preclude the referent of that noun phrase from being understood as (part of) the topic of the clause in question. It just indicates that the referent of the pre-subject noun phrase is being contrasted with some other entities. Evidence for the contrastive focus function of *da* comes from the fact that many narratives begin with a pre-subject noun phrase that is coded with *da*, as shown in the next example which narrows the focus from any possible referent down to the people of a given village.

Pre-subject noun phrase marked with *da* co-referential with subject marker and beginning narrative text

- (11) **mēgə n a wo da**
 people MOD:PL PREP village CONTR
People of a village

- (b) **ē ka marágə gí i dō sam**
 3PL:CMPL find RECIP COMP NEUT:3PL go hunt
got together to go on a hunt

Like unmarked pre-subject noun phrases, those marked with *da* can correspond with different grammatical functions within the clause, both within verbal and non-verbal predication. In the example just given, the pre-subject noun phrase marked with *da* is co-referential with the subject of a verbal predication. In this next example, a non-verbal predication, the subject of the locative copula construction (in line (c)) is coded with *da*. A sultan has died a few years back and one of his sons has become the new sultan. The reference to the son is coded with *da* since he, and not one of his other (unmentioned) brothers, became sultan.

Noun phrase co-referential with locative copula subject

- (12) **abá só a dǎlá**
 father DET:M NEUT:3SG:M not.exist
His father died

- (b) **əl yā fā-e n si**
 NEUT:3SG:F become year-PL MOD:PL NONSPEC:PL
a few years before

- (c) **gáko dó [dan da]_{CS} nda [lǎ]_{CC} do me**
 front DET:F 3SG:M:IND CONTR be.at:M PRO as sultan
then he was the one that was sultan

In this next example, the pre-subject noun phrase corresponds with the direct object of the clause. The context of this story is that a group of hunters going on a hunt come across a jackal on their way out of their village. They tie the jackal up to a tree with plans to kill him on their return. In the meantime, a hyena comes along and is duped by the jackal to take his place. When the hunters return, they find a hyena instead of jackal tied to the tree.

Pre-subject noun phrase marked with *da* functions as direct object of clause

- (13) k'ani **mashi da** ē ka rə a gə sí dó
 CONJ hyena CONTR 3PL:CMPL find 3SG:M:DO PREP PREP tree DET:F
Then it was a hyena that they found (tied up) against the tree

Even the temporal reference for the clause can be marked with *da*. This next example is the opening line of a text and is a typical opening to a folk tale narrative, comparable to ‘once upon a time’.

Pre-subject noun phrase marked with *da* functions as temporal reference for clause

- (14) **sé ro so da** mā n-ō dē ní
 day MOD:F NONSPEC:F CONTR woman 3SG:F-CMPL go L.P.
One day, a woman went

- (b) n-ō gá ensé n-gə lo ro-gá-də
 3SG:F-CMPL gather foot:PL MOD:PL-POSS child MOD:F-POSS-3SG:F
and visited her daughter

- (c) a wo ro so
 PREP village MOD:F NONSPEC:F
at a village

It is possible to have two pre-subject noun phrases in a clause, one which is unmarked, the other marked with *da*. Generally, though not always, the unmarked noun phrase precedes the marked noun phrase. In keeping with the proposed functions for both, the referent of the unmarked pre-subject noun

phrase constitutes (an aspect of) the topic of the clause, while the referent of the pre-subject noun phrase marked with *da* is being contrasted with other possible referents (while not being excluded as part of the topic). This is illustrated in the next two examples. I have noted the pre-subject noun phrases using square bracketing and subscripted numbers. In the first, the topic comes first. In the first line of this next example, speaker A asks what speaker B wants. In speaker B's reply in line (b) he makes himself the topic, using an independent pronoun. He then indicates what he wants (*keyfí* 'fat') by placing the referent in pre-subject position and marking it with *da*, indicating that out of all the possible things he could want, it's fat that he does want.

(15) **A:** kón gə yá gə wa he
 2SG:M:IND NEUT:2SG want PREP thing:CONC:PL what
 What do you want?

(b) **B:** [don só]₁ [keyfí da]₂ u yá gó
 1SG:IND DET:M fat CONTR NEUT:1SG want PREP
 It's fat that I want

In this next example the pre-subject noun phrase marked with *da* precedes the unmarked noun phrase. The context of this example is that the colonizers have come to the region and have indicated that they want to choose one sultan from the area to be the chief sultan so they can interact directly with him instead of having to communicate with the sultanates of each of the areas in the region. The proposal to be the chief sultan is made to the sultan of Makary (and his entourage), and one of his advisors encourages him to take up this role. Note that the marker *da* comes after the reference to the 1PL:INCL independent pronoun 'mo', indicating that they and not some other sultanate of the region

should have the honor. A component of the topic of the clause, the ‘bigness’ (i.e., the right to rule over the region) is the second pre-subject noun phrase.

- (16) mē hé gí [mo da]₁ [dāmo-són só]₂ m sī
 remain L.P. COMP 1PL:INCL:IND CONTR big-NOM DET:M NEUT:1PL:INCL take
Wait, that, we, the right to rule the region, let's take (it₁)

In discussing this example with a language consultant, he indicated that if the marker *da* were to occur after the second pre-subject noun phrase (*dāmosón* ‘bigness’) instead of the first (*mo* (1PL:INCL:IND)), this would mean that they should choose ‘the right to rule over the region’ as opposed to some other available position.

This next example is an instance of the presentational copula construction. There are two noun phrases which precede the copula. The first is unmarked, the second is marked with *da*. What is interesting about this example is that both noun phrases refer to the same referent – the one who farms. The unmarked noun phrase establishes the farmer as the topic of the clause. The noun phrase marked with *da* contrasts him with people of other occupations who might be potentially rich because of their vocation. This also gives compelling evidence for my claim that a marked pre-subject noun phrase is not excluded from being understood as part of the topic of the clause.

- (17) [blō [n a hōn gēre]_{RC} só]₁
 man MOD:M NEUT:3SG:M do farming DET:M
the man that farms,

similar in function to the adversative *damá* when it occurs between clauses (discussed in section 29.9).

The contrastive focus marker occurs at the end of line (b).

- (19) a-sə-ró yahe mafi nda yá gə dólá
 PREP-day-DEM:F even hyena INCMPL:3SG:M want PREP jackal
Even today, hyena is looking for jackal

- (b) gē-i nyi [ro a ha rə]_{RC} dó **da**
 mouth-NMOD:PL thing:ABSTR MOD:F NEUT:3SG:M do:APPL 3SG:M:IO DET:F CONTR
because of what he did to him

- (c) a ka rə wa
 NEUT:3SG:M find 3SG:M:DO NEG
but he hasn't found him

26.3 Pre-subject noun phrases marked with the switch reference marker *dê*

The function of the marker *dê* is to distinguish the referent of the pre-subject noun phrase after which it occurs with other contextually identifiable referents. That is, the marker *dê* distinguishes one participant established within the discourse from another. This sets it apart from the function of the marker *da*, discussed above, which generally contrasts the referent of the pre-subject noun phrase that it follows with other possible/potential referents (generally not established within the discourse). Simply put, the marker *dê* distinguishes between elements within a closed set (those established within the discourse) while *da* contrasts the element it marks with other possible elements in an open set. I tentatively call *dê* a switch reference marker. As with *da*, I propose that having a pre-subject noun phrase marked with *dê* does not preclude the referent of that noun phrase from being understood as (part

of) the topic of the clause in question. It just indicates that the referent of the pre-subject noun phrase is being contrasted with a closed set of referents.

As with other pre-subject noun phrases, those marked with *dě* can correspond with different grammatical functions within the clause. In the following example, the pre-subject noun phrase marked with *dě* is co-referential with the subject marker. The context is that a man and his wife are on a trip to Mecca. They are the two primary participants within the narrative and have already been established in the discourse. The first line refers to the action of the man, the second to the action of his wife. The pre-subject noun phrase referring to the wife is coded with *dě* to switch the addressee's attention from the husband to the wife.

Pre-subject noun phrase marked with *dě* co-referential with subject marker

(20) *blō só ā só gáko*
 man DET:M 3SG:M:CMPL enter front
The man went in front

(b) *gərəm ro-gə-n dó dē ndá-l kadé rə*
 wife MOD:F-POSS-3SG:M DET:F S.R. INCMPL-3SG:F follow 3SG:M:DO
His wife followed him

The pre-subject noun phrase corresponds with the object of a preposition in the next example. The context is that two brothers have come to a village to kill the snake that reigns over the region. Once the snake is dead, the people of the village need to choose a sultan from between the two brothers, settling on the younger of the two.

Pre-subject noun phrase marked with *dê* functions as object of preposition

- (21) mēgə yó i ndə gə yayá só he
 people DET:PL NEUT:3PL see PREP older.sibling DET:M L.P.
The people took a look at the older brother

- (b) aro **katána** só **dê** i ndə gó-n he
 CONJ younger.sibling DET:M S.R. NEUT:3PL see PREP-3SG:M L.P.
then they looked at the younger one

The pre-subject noun phrase is the possessor of one of the arguments in the clause in the next example which is drawn from the same story as above. The people are comparing the attributes of the two brothers.

Pre-subject noun phrase marked with *dê* functions as possessor of an argument of the clause

- (22) [yayá só]_{VCS} [malê̄m]_{VCC} aro **katána** só **dê**
 older.sibling DET:M Koranic.teacher CONJ younger.sibling DET:M S.R.
The older brother was a Koranic teacher, the younger brother

- (b) sífā n-gə-n só a mbîn
 appearance MOD:M-POSS-3SG:M DET:M NEUT:3SG:M be.good
was a good looking young man

In the three preceding examples the switch reference marker *dê* occurred once, after a pre-subject noun phrase in order to distinguish the referent of that noun phrase from one previously mentioned. In some cases *dê* occurs after each participant being contrasted as shown in the next example. The context is that the sultan has asked his subjects to build a home for him. However, unlike their homes, which are built on the ground, the sultan wants them to build him a house situated between heaven and earth. In this example the sultan is distinguishing his subjects from himself. The switch

reference marker *dê* is used after pre-subject noun phrases referring to both of them. It occurs first in line (c) in reference to the people, and then again in line (d) in reference to the sultan.

(23) **A:** hó dó mǎ-ne gá he
 house DET:F IRR-1PL:EXCL build L.P.
“We’ll build the house”

(b) **B:** damá nyi [ro w-ō yá do n]_{RC} dó
 ADVERS thing:ABSTR MOD:F 1SG-CMPL want MMR PREP:2PL DET:F
“The reason I wanted you (to gather together is that)

(c) **B:** hó dó wre **dê** [hádē n]_{CS} nde [tón]_{CC}
 house DET:F 2PL:IND ADVERS house:PL MOD:PL:POSS:2PL be.at:PL ground
as for the house, you, your houses are on the ground

(d) **B:** don **dê** [hó ro-g-u]_{CS} ndwa [tón]_{CC} dó
 1SG:IND ADVERS house MOD:F-POSS-1SG be.at:F ground CONJ
but me, (if) my house is on the ground

(e) **B:** əl bó gá si wa
 NEUT:3SG:F be.able PREP REFL NEG
it’s not possible” (i.e., I won’t accept it)

In this next extended example, the switch reference marker *dê* comes after each pre-subject noun phrase referring to the established discourse participants except the first one mentioned. The context is that the lion, the leopard, the hyena, and the snake have all come together to build a home and live in it. Having built the home, they each take turns telling what they don’t want the others to do to them. Each of the last three is referred to using the switch reference marker *dê*, distinguishing that participant from the previously mentioned participants. The leopard is referred to in line (c), the hyena in line (e), and the snake in line (h). The example begins with the speech of the lion.

(24) **A:** aro don só tá-y do g-u bərbâr ho wa
 CONJ 1SG:IND DET:M PROH-3PL send PREP-1SG dust L.P. NEG
“Don’t send dust my way”

(b) **B:** iyo əl mbîn nē ĩn gó
 okay NEUT:3SG:F be.good 1PL:EXCL:CMPL hear PREP
“Okay, good, we understand”

(c) **sətó de** a gə gí
 leopard S.R. NEUT:3SG:M say COMP
Leopard said

(d) tá-y i gə-n nówó wa
 PROH-3PL take PREP-3SG:M finger NEG
that they shouldn’t point their finger at him

(e) **maji de** a gə gí
 hyena S.R. NEUT:3SG:M say COMP
Hyena said that

(f) nyi le da nda hān yahe
 thing:ABSTR what CONTR INCMPL:3SG:M do even
regardless of what he was doing

(g) tá-y g-amsó gó rə wa
 PROH-3PL say-word with 3SG:M NEG
they shouldn’t talk to him

(h) **āhe de** a gə gí
 snake S.R. NEUT:3SG:M say COMP
Snake said,

(i) don só mts¹afú ro-g-u dó
 1SG:IND DET:M tail MOD:F-POSS-1SG DET:F
“As for me, my tail,

- (j) tá-y d̄ə̃ lə ensá lə gó dó wa
 PROH-3PL put PRO foot PRO head DET:F NEG
don't step on it"

This next example contains two pre-subject noun phrases, one coded with *d̄ə̃*, the other with *da*.

The context of the story is that in former times when someone would commit a crime, he would pay for it by hauling a set amount of sand to the sultanate (to be used in its construction and maintenance). The first pre-subject noun phrase is marked with the switch reference marker *d̄ə̃* and refers to ‘a man and his slaves’ which is distinguished from a man and his people (i.e., family, friends, and associates), which have already been mentioned in the text (though not given in this example). The second pre-subject noun phrase, the independent pronoun with the definite determiner, is marked with the contrastive focus marker *da*. The pronoun refers back to the ‘slaves’. Coding that pre-subject noun phrase with *da* indicates that by the slaves, and not some other means, the man will pay his fine, using them as a workforce to haul the sand.

- (25) [blō n gó ngwāre d̄ə̃]₁ [d̄én yó da]₂
 man MOD:M with slave:PL S.R. 3PL:IND DET:PL CONTR
A man with his slaves_i, it's by them_i

- (b) m-á hōn do bigô
 IRR-3SG:M do MMR fine
that he'll pay his fine

The switch reference marker *d̄ə̃* can also occur between clauses, though this is considerably less frequent in the corpus than when it occurs after pre-subject noun phrases. Intonationally, *d̄ə̃* is generally linked to the first clause – that is, there is a slight pause after *d̄ə̃* and before the next clause. The context

of this next example is that a lion has kidnapped a young girl and made her his wife. He puts her in a tree fort high in the trees. When he comes to bring her food, he has a special call that he makes and she is expected to reply in a certain way. The woman manages to escape and puts a slave girl in the tree fort in her place. When the lion returns and calls, the slave girl doesn't know how to reply. The contrast conveyed by *dê* here is between the response that the young girl was able to give, and the lack of a such a response by the poor slave girl.

- (26) aro a fé dǎ **dê** əl ts'am wa
 CONJ NEUT:3SG:M call 3SG:F:DO ADVERS NEUT:3SG:F agree NEG
Then he called her but she didn't reply

In its function as a marker of a pre-subject noun phrase, it was seen that *dê* can appear in a series of clauses to distinguish the referents of the pre-subject noun phrases of those clauses. Similarly in its function as a marker between clauses, it can occur after each clause being contrasted, as shown below. The contrast in the example below is between going forward in the midst of a dangerous situation or turning back from it.

- (27) i dǎ ní **dê** i samasân
 NEUT:3PL go L.P. ADVERS NEUT:3PL be.afraid
There were afraid to go (forward, and)

- (b) i tǎ ts'e **dê** i samasân
 NEUT:3PL return L.P. ADVERS NEUT:3PL be.afraid
afraid to turn back

26.4 Pre-subject noun phrases marked with the focus marker *má*

The marker *má* (FOC) occurs less than once per text on average. It is most likely borrowed from Kanuri where it is called an ‘emphatic particle’ (Hutchison 1981:46). I propose that its function is simply to focus the addressee’s attention on the referent of the pre-subject noun phrase that it marks, without any particular emphasis on contrasting it with other possible referents (like *da* does) or contextually identifiable referents (like *dè* does).

As with other pre-subject noun phrases, those marked with *má* can correspond with different grammatical functions within the clause, both within verbal and non-verbal predication.

In this next example, a non-verbal predication, the presentational copula subject, which is modified by a relative clause, is marked with *má*.

Presentational copula subject marked with *má*

- (28) [kafágār [ro n-ō la kásínô só]_{RC} dó má]_{CS}
 sword MOD:F 3SG:F-CMPL kill snake DET:M DET:F FOC
The sword that killed the snake

- (b) ndó [no-gə-n dó]_{CC}
 PRES 3SG:F-POSS-3SG:M DET:F
was his

The pre-subject noun phrase corresponds with the indirect object in this next example.

Pre-subject noun phrase marked with *má* corresponds with indirect object

- (29) yá ró-n [ro n-ō wē kón]_{RC} má
 mother MOD:F-POSS:2PL MOD:F 3SG:F-CMPL give.birth.to 2SG:M:DO FOC
Even your mother that gave birth to you,

- (b) tá-g ha dɔ amán wa
 PROH-2SG do:APPL 3SG:F:IO trust NEG
don't trust her

The next example has two pre-subject noun phrases, the first unmarked, the second marked with *má*. This is the usual order when one pre-subject noun phrase is unmarked and the other is marked with *má*. The unmarked pre-subject noun phrase is co-referential to the locative copula complement. The pre-subject noun phrase marked with *má* is the locative copula subject. The context of this example is the time period during which the colonizers required the people of the Kotoko area to build roads. The workers were regularly beaten with whips to the point that their backs were cut up and scarred, such that no normal black skin remained on their backs. The pre-subject noun phrase referring to the people's backs is the topic. The (normal) black spots on their backs is marked as in focus by *má*.

- (30) [ɓəlɛm ro-gó-dan dɔ]₁ [[ngō ro səlám má]₂]_{CS} ndwa [lɔ]_{CC} wa
 back MOD:F-POSS-3PL DET:F place MOD:F black FOC be.at:F PRO NEG
There wasn't any black spots left on their backs

In this next example there are again two pre-subject noun phrases. In this case, the first is marked with the focus marker *má*, the second with the contrastive focus marker *da*. In the story from which this example is taken, a man has been locked up in his hut throughout the night, unable to leave to go to the bathroom. He has thus been forced to use the corners of the hut as his outhouse. In the morning, his mother-in-law – who unbeknownst to him was the one who locked him in – comes to let him out and sees piles of excrement in the corners of the hut. After claiming that he was only responsible for one pile of excrement, and that little children, who had possibly come into his hut during

the night, were likely responsible for the others, the man is finally forced to admit that he is responsible for all the piles of excrement. Note that the contrastive focus marker modifies the independent pronoun referring to the man, thus indicating that he – and not someone else (like the children) – is responsible for the piles of excrement. The focus marker *má* modifies the universal quantifier *fogə* ‘all’ which refers to the piles of excrement.

- (31) álu k^lo yígə [fogə má]₁ [don da]₂ w-ō gá
 IMP:2SG:come still only all FOC 1SG:IND CONTR 1SG-CMPL put
Come (back) again. I'm the one that defecated all (of them)

This next example also has two pre-subject noun phrases. The first is marked with *dé*, the second with *má*. The first is a temporal reference and the use of *dé* distinguishes how things were done in the past with how they are being done now. The context of this example is when the colonizers first came to the region, providing medical assistance to the people. When they diagnosed a person with a sickness or disease, they would generally give him a shot as treatment. As time moved on, they would no longer give shots, distributing pills instead.

- (32) [a-sə-ró kláma dó dé]₁ [líbra dó má]₂ əl dala
 PREP-day-DEM:F INTENS DET:F S.R. needle DET:F FOC NEUT:3SG:F not.exist
Even today, there are no more needles (being used)

26.4.1 Negative quantifiers

If a negative clause has a pre-subject noun phrase that is modified by the non-specific marker and is marked with *má*, this is one means of expressing notions similar to that of negative quantifiers (e.g. ‘no one’, ‘nothing’, ‘nowhere’, etc.) in other languages. See section 22.9 for details.

26.4.2 Universal quantifiers

In similar fashion, universal quantifiers (e.g. ‘everyone’, ‘everything’, ‘everywhere’, etc.) are also formed using the focus marker *má*. In this case, however, the pre-subject noun phrase is an interrogative term (e.g. *yagí* ‘who’) or is modified by one of the interrogative markers (e.g. *he* ‘what’, *le* ‘what’, *garo* ‘how much’). These forms only ever occur in pre-subject position, meaning that universal quantifiers always occur in focused constructions. In this first example, the pre-subject interrogative term *yagí* ‘who’ is marked with *má* and is co-referential to the subject marker of the clause.

- (33) **yagí má** ā sī tōlu n-gə-n ts'ā rə
 who FOC 3SG:M:CMPL take road MOD:M-POSS-3SG:M only 3SG:M
Everyone went their own way

The pre-subject noun phrase is modified by the interrogative marker *he* ‘what’ in the next example and corresponds with the direct object of the clause.

- (34) **wa he má** ē fo rə
 thing:CONC:PL what FOC 3PL:CMPL give:APPL 3SG:M:IO
They gave him everything

The subject in non-verbal predication can be an interrogative term marked with *má* as well. In the next example, the subject of the juxtaposition construction is modified by the interrogative marker *le* ‘what’ and is marked with the focus marker *má*.

- (35) [**ngō le má**]_{VCS} [sá-n he n-gə kəmani]_{VCC}
 place what FOC sit-INF L.P. MOD:M-POSS god
Everywhere is God's dwelling place

The pre-subject noun phrase can also be realized pronominally, as shown below.

- (36) **no le má** n-ō sī ló ro-gá-də
 3SG:F what FOC 3SG:F-CMPL take child MOD:F-POSS-3SG:F
Every one (of them) took her child

26.5 Pre-subject noun phrases marked with the concessive marker *yahe*

The function of the concessive marker *yahe* when it occurs between clauses is described in section 29.8. There, the concessive marker conveys the idea that despite the information given in the concessive clause (the one marked with *yahe*), the situation of the matrix clause still holds true.

Similarly, when *yahe* comes after a pre-subject noun phrase, it conveys surprise/counter-expectation that despite (certain attributes of) the referent of the pre-subject noun phrase, the situation of the clause holds true. This is in keeping with its function to code concession. On average, *yahe* occur less than once per text in coding a pre-subject noun phrase.

As with other pre-subject noun phrases, those marked with *yahe* can correspond with different grammatical functions within the clause. In this next example the pre-subject noun phrase marked with *yahe* is co-referential with the subject marker of the clause. The context is that a rabbit is trying to prevent a group of elephants from crossing through her territory and potentially stepping on one of her children. She warns the elephants that if they pass by that way something very bad will happen to them (despite the fact that they're elephants and it wouldn't seem like anything could hurt them).

Pre-subject noun phrase marked with *yahe* co-referential with subject marker

- (37) **wre yó yahe** wê ndə
 2PL:IND DET:PL even IRR:2PL see
Even you will see something

- (b) nyi _{RC1}[ro nsé _{RC2}[n ē ɕí go]_{RC1}]_{RC2}
 thing:ABSTR MOD:F eye:PL MOD:PL 3PL:CMPL refuse PREP
that your eyes won't believe

The next example contains two pre-subject noun phrases. The first is unmarked, the second is marked with *yahe*. The noun phrase marked with *yahe* functions as the direct object the clause. The context of this story is that a mother has gone to visit one of her daughters in a village where people don't eat. Her daughter expresses doubts that her mother could carry out the necessary fast during her visit. The mother affirms that she can.

Pre-subject noun phrase functions as direct object of clause

- (38) [sǎ pál dó]₁ [asíam yahe]₂ u sī wá
 day one DET:F fast even NEUT:1SG take TAG
I can at least fast for one day, can't I?

26.5.1 Free choice indefinites

The concessive marker *yahe* is also used in the formation of what Haspelmath (1997:48) calls 'free choice' indefinites (e.g. whoever, whatever, wherever, anyone, anything, anywhere). Like the universal quantifiers described in section 26.4.2, the free choice indefinites are formed using interrogative markers. Unlike the universal quantifiers, the free choice indefinites need not occur in pre-subject position. In the next example the complement of the verb *só* 'enter' is a free choice indefinite, and occurs in the canonical position for locative complements.

- (39) ndá-l só ngō le yahe só lə gó də
 INCMPL-3SG:F enter place what even IMP:2SG:enter PRO with 3SG:F
Whatever place she enters, enter with her

The free choice forms can occur in pre-subject position, as shown below.

- (40) *ā* *lū* *aro* *nəmân* *garo* *yahe* *dǎ* *gǎ-n* *ho*
 3SG:M:CMPL come CONJ money how.much even IMP:2SG:put PREP-3SG:M L.P.
When he comes, demand however much money from him

In the next example the means/manner/reason marker that occurs in interrogative contexts, *la* (MMR), is the head of the free choice form.

- (41) *wē* *sā* *hé* *nondó* *a* *dunía* *só* *la* *he* *yahe* ...
 2PL:CMPL sit L.P. in.this.way PREP world DET:M MMR what even
However you live in the world ...

The head of the free choice indefinite can also be realized pronominally, as shown below.

- (42) *gǎlk'ə* *nondó* *m-á* *sā* *hé* *a* *lárdə* *dó* *wa*
 old:M in.this.way IRR-3SG:M sit L.P. PREP country DET:F NEG
If someone is old, he won't dwell in the region (anymore)

- (b) *ílé* *e* *le* *yahe* *m-í* *la* *rə*
 only 3SG:M what even IRR-3PL kill 3SG:M:DO
Whoever it may be, they should kill him

26.6 Pre-subject noun phrases marked with the adversative *dámá*

The marker *dámá*, possibly borrowed from Arabic, primarily occurs between clauses, setting the situation of the second clause in contrast to that of the first clause, as described in section 29.9.

Considerably less frequently (less than once per text), *dámá* is also used after pre-subject noun phrases with a contrastive function. The context of this next example is that a group of monkeys has been stealing a woman's food. Her brother brings her a dog to chase the monkeys away. He gives his sister advice on two things: (i) how to care for the dog, and (ii) what she herself should do. The adversative

comes at the beginning of line (c), after the fronted independent pronoun referring to the sister, contrasting her, and what she should do, with the dog, and how it should be cared for.

(43) kálēw nda só use dó g-ō sē aro
 dog DEM:M DET:M food DET:F 2SG-CMPL prepare.food CONJ
That dog, when you've prepared the food, then

(b) la rə aro ɗa amé ɗē gó-n he
 IMP:2SG:hit 3SG:M:DO CONJ IMP:2SG:draw water IMP:2SG:put PREP-3SG:M L.P.
feed him and give him water.

(c) tó ɗamá sēm aro sórāngí
 2SG:F:IND ADVERS IMP:2SG:eat CONJ before
As for you, eat, then clean your cooking pot before

(d) skó ro-m dó háɗə
 cooking.pot MOD:F-POSS:2SG:F DET:F IMP:2SG:scrape
you clean your cooking pot

26.7 Postposed noun phrases

Postposed noun phrases provide clarification or additional information about a referent of a noun phrase in the clause. When they provide clarification, it is usually to distinguish between two participants within the narrative. They follow manner adverbs (if any) and precede any clause final conjunctions. There is typically a prosodic break before the postposed noun phrase, setting it off from the rest of the clause. This is represented by a comma in the first line of interlinearization in the examples below. Postposed noun phrases are considerably less frequent in the corpus than pre-subject noun phrases. Like pre-subject noun phrases, postposed noun phrases can correspond with any grammatical function in the clause. Unlike pre-subject noun phrases, though, there is always a noun or

pronoun in the canonical position with which the postposed noun phrase corresponds. In each example below, the postposed noun phrase is bolded, as is the noun or pronoun occurring in the canonical position.

The following example provides illustration of a postposed noun phrase that is co-referential to the subject marker of the clause. The context of this story is that a potential war is brewing between the sultan of Wadai and the sheik of Borneo. The account begins with the sultan of Wadai writing a letter to the sheik making an unreasonable demand of him. The sheik replies with his own letter which involves an insult directed toward the mother of the sultan. The postposed noun phrase clarifies who carries out the action of the clause.

Postposed noun phrase co-referential with subject marker

- (44) gáko dó ā i wakítā dó wō, **ǰéka só** gí ...
 front DET:F 3SG:M:CMPL snatch letter DET:F high sheik DET:M COMP
Then he held up the letter, the sultan (did), saying ...

In the following example there is both a pre-subject noun phrase corresponding to the direct object of the clause and a postposed noun phrase that is co-referential with the indirect object. The context of this story is that a sultan who lived to be three hundred years old has died and they are passing the chieftaincy on to his son. In this example, the postposed noun phrase provides important additional information about the son – the fact that he is young. This is important because it helps explain why he decides to have all the old people of the kingdom killed.

Postposed noun phrase co-referential with the indirect object of the clause

- (45) k'ani man-són dó
 CONJ sultan-NOM DET:F
Then the chieftaincy

- (b) ē fo lo n-gə-n, gómnárū
 3PL:CMPL give:APPL child MOD:M-POSS-3SG:M young.man
they gave to his son, a young man

The postposed noun phrase is co-referential with the object of a preposition in the next example.

The context is that a mother has gone to her daughter's village to visit her. People of the village are being required to perform a dance and it has come time for the daughter to dance. The postposed noun phrase clarifies which of the two (the mother or the daughter) is to dance next.

Postposed noun phrase co-referential with the object of a preposition of the clause

- (46) k'ani n-ō də gə-də, lo dó
 CONJ 3SG:F-CMPL put PREP-3SG:F child DET:F
Then it was her turn, the daughter('s)

The postposed noun phrase corresponds with the possessor of one the arguments of the clause in this next example.

Postposed noun phrase co-referential with the possessor of an argument of the clause

- (47) kída l dōmo gó kotárā da ndó kída-e n-gə-dan,
 work NMOD:F hoe with irrigation CONTR PRES work-PL MOD:PL-POSS-3PL
Hoe work and irrigation (i.e., farming) is their work,

- (b) mēgə n a lə yó
 people MOD:PL PREP PRO DET:PL
the people who live there (i.e., Makary)

26.8 Summary

In this chapter I have laid out the functions of unmarked and marked pre-subject noun phrases, providing evidence that they do not code grammatical relation information. I have claimed instead that they code pragmatic information for the clause and the larger discourse. Placing an unmarked noun phrase in pre-subject position is a means of topicalizing the referent of that noun phrase, letting the addressee know what the clause is about. Pre-subject noun phrases marked with the contrastive focus marker *da* are contrasted with an open set of possible referents. Pre-subject noun phrases marked with the switch reference marker *dê*, on the other hand, are contrasted with a closed set of known discourse participants. Pre-subject noun phrases marked with the focus marker *má* are highlighted in the discourse with no implications of contrast with other referents. Marking a pre-subject noun phrase with the concessive marker *yahé* conveys surprise/counter-expectation that despite (certain attributes of) the referent of the pre-subject noun phrase, the situation of the clause holds true. Referents of pre-subject noun phrases marked with the adversative *dámá* are contrasted with other referents of the discourse. Postposed noun phrases are never marked, are set off from the rest of the clause with a prosodic break, always have a nominal or pronominal reference in the canonical position for the given argument, and provide clarification or additional information about the referent of that argument.

27 Relative clauses

Makary Kotoko can use a clause to modify a noun within the matrix clause. Using standard terminology, I will refer to the modifying clause as a relative clause (RC). Relative clauses are (almost) always introduced with the gender/number sensitive markers *n* (MOD:M/PL) and *ro* (MOD:F). The noun modified by the relative clause will be called the head noun. The relative clause (almost) always follows the head noun directly. Relative clauses can be verbal or non-verbal. The head noun generally has a grammatical function (e.g. subject, indirect object, direct object, (copula) complement) or a semantic function (e.g. location, possessor, means/manner/reason) in both the relative clause and the matrix clause. There appears to be no restriction on which grammatical/semantic functions the head noun can have within the relative clause. I present the following issues regarding relative clauses: (i) verbal predication in relative clauses, (ii) non-verbal predication in relative clauses, (iii) pronominal realization of the head, (iv) relative clauses with no modifying marker, (v) the formal irrelevance of the restrictive/non-restrictive distinction, and (vi) complex relative clauses.

27.1 Verbal predication in relative clauses

For verbal predication, the head noun of the relative clause can function as the subject, direct object, object of a prepositional verb, indirect object, location, possessor, and means/manner/reason of the relative clause, as shown in the next series of examples. As well, there appear to be no restrictions on the aspect/mode coding that can occur within relative clauses. In discussing these examples I also note the presence/absence of a resumptive pronoun within the relative clause. This issue is discussed in

chapter 25. Summarily, there is a resumptive pronoun in the canonical position for the head noun when

(i) the argument structure of the (transitive or locative complement taking) verb of the clause requires it,

(ii) the head of the relative clause corresponds with the indirect object of the clause, (iii) the head of the relative clause corresponds with the possessor of an argument of the clause, and the referent of the possessor is human, (iv) the head of the relative clause corresponds with the direct object of an ambitransitive verb, and the referent of the direct object is human or has ongoing saliency within the discourse.

In the following example, the head noun (HN, bolded, at the end of the first line) is co-referential with the subject of relative clause (RC, marked in square brackets and subscripted), at the beginning of line (b)). What I mean by ‘co-referential with’ is that the referent of the subject marker of the relative clause is also the referent of the head noun. Since the head noun (*nyi* (thing:ABSTR)) is feminine, the modifying marker appears in its feminine form (*ro* (MOD:F)). The aspect/mode of the relative clause is the completive. Note that the head noun of the relative clause occurs in the canonical direct object position (after the verb and the indirect object) in the matrix clause.

HN: subject of RC, direct object of matrix; aspect/mode of RC: completive

(1) *ā* *kō* *rə* ***nyi***
 3SG:M:CMPL tell 3SG:M:IO thing:ABSTR
He_i told him_k

(b) [*ro* *n-ō* *gá* *si* *gó-n* *ho*]_{RC} *dó* *ho*
 MOD:F 3SG:F-CMPL put REFL PREP-3SG:M L.P. DET:F L.P.
what happened to him_i

In the next example, the head noun corresponds with the direct object of the relative clause.

What I mean by ‘corresponds with’ is that were the head noun to be placed within the relative clause, it would appear in the canonical position for that argument. Note in this case that there is no resumptive pronoun in the canonical direct object position. The head noun (*wa* (thing:CONC:PL)) is plural (being the suppletive plural of *ɕi* (thing:CONC)) so the modifying marker appears in its non-feminine form (*n* (MOD:M/PL)). The relative clause is in the neutral aspect. The head noun is co-referential with the subject marker of the matrix clause.

HN: direct object of RC, subject of matrix; aspect/mode of RC: neutral

(2) **wa** [n ne i ga]_{RC} má
 thing:CONC:PL MOD:PL NEUT:1PL:EXCL put mouth FOC
There is nothing for us to eat

(b) i ɗalá a hó dó
 NEUT:3PL not.exist PREP house DET:F
at the house

The head noun corresponds with the indirect object of the relative clause in the next example.

As such there is a resumptive pronoun (bolded) in the canonical indirect object position. The relative clause is in the neutral aspect. The head of the relative clause is the object of the prepositional verb in the matrix. Note the use of *blō* ‘man’ in many cases is understood to mean ‘someone’ as opposed to referring to a male referent.

HN: indirect object of RC, object of prepositional verb in matrix; aspect/mode of RC: neutral

(3) əl yá gə **blō** [n
 NEUT:3SG:F want PREP man MOD:M
She wants someone

- (b) əl fo rə]_{RC} gí ...
 NEUT:3SG:F give:APPL 3SG:M:IO COMP
to give it to so that ...

In the following example, the head noun corresponds with the object of the prepositional verb *ʃin gə* ‘hear’ in the relative clause. The head noun and the relative clause are in pre-subject position within the matrix clause and are marked with the switch reference marker *dè* (discussed in section 26.3). There is no resumptive pronoun after the preposition within the relative clause and as such the preposition has its ‘intransitive’ form (discussed in section 11.2.1). The relative clause is in the completive aspect. The head noun corresponds with the direct object of the matrix.

HN: object of prepositional verb in RC, direct object of matrix; aspect/mode of RC: completive

- (4) nyi [ro g-ō ʃin gó]_{RC} də
 thing:ABSTR MOD:F 2SG-CMPL hear PREP S.R.
What you heard

- (b) gə n mo
 IMP:2SG:SAY 1SG:IO IMP:INTENS
please tell me

In the next example, the head noun corresponds with the expression of location in the relative clause. There is a resumptive pronoun (*lə*, bolded) within the relative clause. Note that the locative pronoun precedes the direct object within the relative clause because the location is realized pronominally and the direct object is realized nominally (cf. section 19.3 regarding this reordering of the direct object and the locative complement based on their nominal/pronominal realization). The

relative clause is in the neutral aspect. The head of the relative clause is co-referential with the subject marker of the matrix clause.

HN: location of RC, subject of matrix; aspect/mode of RC: neutral

- (5) **ngō** [ro i gá **lə** ēngu]_{RC} de əl dǎlá
 place MOD:F NEUT:3PL put PRO excrement S.R. NEUT:3SG:F not.exist
There was no place to go to the bathroom

In the following example, the head noun corresponds with the possessor in the relative clause.

Since the possessor is human, there is a resumptive pronoun (bolded) in the canonical position for the expression of the possessor within the relative clause. The relative clause is in the completive aspect.

The head of the relative clause is the direct object of the matrix clause.

HN: possessor of RC, direct object of matrix; aspect/mode of RC: completive

- (6) n-ō fé **blō** [n n-ō do
 3SG:F-CMPL call man MOD:M 3SG:F-CMPL take.to
She called the man whose house she took

- (b) hálbō hó ro-gə-**n**]_{RC} só
 shoe(s) house MOD:F-POSS-3SG:M DET:M
the shoes to

The head noun corresponds with the expression of means in the relative clause of the next example. Note the presence of the marker *do* (bolded) in the relative clause. As described in section 19.2, the marker *do* is used to indicate that a previously mentioned entity functions as the means/manner/reason of the clause in question. Which of the three is conveyed is determined by context. In this example, it is understood that the trees (actually the potions made from the plants in question) are the means by which the woman's husband is able to win his wrestling matches. The

relative clause is in the incomplete aspect. The head of the relative clause corresponds with the direct object of the matrix clause.

HN: means of RC, direct object of matrix; aspect/mode of RC: incomplete

(7) mē hé gí sí-é [n wi-sə n-g-u só
 remain L.P. COMP tree-PL MOD:PL husband-LINK MOD:M-POSS-1SG DET:M
Wait (while) the plants (i.e. potions) by which my husband

(b) nda n-dé do mēgə hé]_{RC} yó
 INCMPL:3SG:M PL-throw MMR people L.P. DET:PL
throws people down (in wrestling matches)

(c) u gá kən gə amefú he gí ...
 NEUT:1SG put 2SG:M:IO PREP gruel L.P. COMP
I put (it) in some gruel for you so that ...

In the examples above the aspect/mode of the relative clause was either complete, incomplete, or neutral. The aspect/mode of the following clause is the irrealis.

(8) wa [n m-í dē gwá]_{RC} lāke yó
 thing:CONC:PL MOD:PL IRR-3PL throw cry each DET:PL
Each of the things that would cause diarrhea,

(b) n-ō ságə marágə
 3SG:F-CMPL gather RECIP
she gathered together

27.2 Non-verbal predication in relative clauses

In chapter 21, I present the four primary non-verbal constructions in Makary Kotoko: the juxtaposition construction (**NP NP**), the presentational copula construction (**NP ndó NP**), the comitative copula construction (**NP gó NP**), and the locative copula construction (**NP nda LOC**). Three of the four

(the presentational copula construction excluded) appear to be possible in relative clauses. The juxtaposition construction places two noun phrases side by side. This is a coding means to express a relationship of identity between the referents of the noun phrases, as shown below.

- (9) [amsó n-gə-n só]_{VCS} [ɔ̄jiré]_{VCC} dəge
 word MOD:M-POSS-3SG:M DET:M truth INTENS
What he said is really true (lit. his word truth really)

If the juxtaposition construction occurs in a relative clause, only the verbless clause complement will actually appear in the relative clause since the verbless clause subject would be the head of the relative clause, as shown below. The head of the relative clause is the possessed noun *gārəm* ‘woman’. The relative clause is the noun phrase *ngrí* ‘gazelle’. As described in more detail in chapter 6, the modifying marker (*ro* (MOD:F), in this case) is used when elements other than nouns modify the head noun. The fact that the noun *ngrí* ‘gazelle’ follows the modifying marker *ro* (MOD:F) would appear to be an anomaly. However, by identifying this as an instance of the juxtaposition construction within a relative clause, the apparent anomaly is resolved. The verbless clause subject is the head of the relative clause and therefore does not occur within the relative clause. As a result the only component of the juxtaposition construction that is expressed in the relative clause is the verbless clause complement (marked as such).

- (10) n-ō dē gə **gārəm** ro-gə **ftar** [[ro ngří]_{VCC}]_{RC} dó ho
 3SG:F-CMPL go PREP woman MOD:F-POSS lion MOD:F gazelle DET:F L.P.
She went to (see) lion’s wife, who was a gazelle

I noted in section 6.1.4 that prepositional phrases can function as noun modifiers, being preceded by the modifying marker (*ro* (MOD:F), *n* (MOD:M/PL)) in each case. As described in section 21.3, the comitative copula construction makes use of the comitative preposition *gó* ‘with’, as shown below.

- (11) [kón só]_{CS} **gó** [amân]_{CC}
 2SG:M:IND DET:M with trust
 You are trustworthy (lit. you with trust)

As such, the following example could either be analyzed as modification of the head noun by a prepositional phrase, or modification by a relative clause which is an instantiation of the comitative copula construction. The copula subject is the head of the relative clause and therefore does not occur within the relative clause. As a result the only components of the comitative copula construction that are expressed in the relative clause are the comitative preposition and the copula complement (marked as such).

- (12) gáko dó ā ka **blō** [n gó [ngúrdá]_{CC}]_{RC}
 front DET:F 3SG:M:CMPL find man MOD:M with disease(SP)
 Then he found a man with a (type of) disease

When the juxtaposition construction or the comitative copula construction occurs in a relative clause, only the subject can be the head of the relative clause. When the locative copula construction occurs in a relative clause, however, the head noun can be either the copula subject or the copula complement, as shown, respectively, in the next two examples.

HN: copula subject of RC

- (13) **blō** [n nda [gáko]_{CC}]_{RC} só a gə rə gi ...
 man MOD:M be.at:M front DET:M NEUT:3SG:M say 3SG:M:IO COMP
The man in front said to him ...

In the next example the head of the relative clause corresponds with the copula complement.

Since the locative copula requires the expression of location in the complement position, there is a resumptive pronoun following the copula.

HN: copula complement of RC

- (14) ... we dō ngō [ro [skəm]_{CS} ndwa [lə]_{CC}]_{RC}
 NEUT:2PL go place MOD:F hunger be.at:F PRO
... you go to a place where hunger is

27.3 Pronominal head

It is possible for the head noun to be realized pronominally. In such cases the pronouns *no* (3SG:F) and *en* (3SG:M/PL) replace the modifying markers *ro* (MOD:F) and *n* (MOD:M/PL), respectively, as shown below in the next two examples. In this first example the pronominal head corresponds with the direct object of the relative clause, and is co-referential with the subject marker of the matrix clause.

HN is feminine pronoun

- (15) [**no** w-ō gə]_{RC} dó da mǎ-l dō ní
 3SG:F 1SG-CMPL say DET:F CONTR IRR-3SG:F go L.P.
What I said will stand

The pronominal head is co-referential with the subject marker of the relative clause, and is a possessor of one of the arguments of the matrix clause.

HN is masculine pronoun

- (16) mēgə n-gə [en ā dē míó]_{RC} só dē
 people MOD:PL-POSS 3SG:M 3SG:M:CMPL throw knife DET:M S.R.
The people of the one that threw the knife

- (b) ē ts'aga gatra gatra gatra
 3PL:CMPL get.up IDEO IDEO IDEO
got up running

27.4 Relative clause with no modifying marker

There are only a few instances in the corpus where the modifying marker would be expected before a clause since it appears to modify a noun within the matrix, yet no modifying marker is used. In the following example, one would expect a modifying marker between *wa* (thing:CONC:PL) and the following subject marker *i* (NEUT:3PL). The term *wa* is the direct object of the matrix and the subject of what appears to be a relative clause. Interestingly, this example is structurally very similar to example (2) above, where the modifying marker is used. Unfortunately, given the limited number of instances in the corpus where an apparent relative clause is not preceded by the modifying marker, I have not been able to establish any difference in meaning by the presence/absence of the modifying marker.

- (17) ... dāmá i ka wa i i ga wa
 ADVERS NEUT:3PL find thing:CONC:PL NEUT:3PL snatch mouth NEG
... but they didn't find anything to eat

27.5 No formal restrictive/non-restrictive relative clause distinction

There is no formal distinction, either segmentally, tonally, or intonationally, between relative clauses which help identify the referent of the head noun (i.e., restrictive relative clauses) and relative clauses that simply provide additional information about an already identified referent of the head noun

(i.e., non-restrictive relative clauses). Whether the head noun is (i) a proper name, (ii) an independent pronoun, or (iii) uniquely identified, there is no difference in the way relative clauses are formed for these from instances where the referent of the head noun is identified through the use of the relative clause. Each of these three possibilities is shown below.

HN: proper name

- (18) **mpaðə** [ro n-ō sā tón tíā]_{RC} ...
 Makary MOD:F 3SG:F-CMPL sit ground olden.times
Makary as it was in olden times ...

HN: independent pronoun

- (19) **kón** [n gə fí:]_{RC} nda só da
 2SG:M:IND MOD:M NEUT:2SG smell DEM:M DET:M CONTR
You who smell (bad),

- (b) u mban kón dó ...
 NEUT:1SG wash 2SG:M:DO CONJ
I wash you ...

HN: uniquely identified

- (20) **yá ro-n** [ro n-ō wē kón]_{RC} dó ...
 mother MOD:F-POSS:2PL MOD:F 3SG:F-CMPL give.birth.to 2SG:M:DO DET:F
Your mother who bore you ...

Frajzngier (1996:415-460) approaches the restrictive/non-restrictive relative clause distinction from a different perspective, proposing that in some Chadic languages the ‘existential status’ of the referent of the head noun of the relative clause is indicated by different coding means within relative clauses. The existential status refers to “the semantic status in which the object [i.e., the referent of the head noun] is taken to exist” (Frajzngier 1996:421). He proposes that two types of semantic status are

coded in relative clauses in some Chadic languages: (i) the “head has been previously mentioned in discourse, is assumed to be an element of general knowledge, or is present in the environment of speech” (ibid.), and (ii) the head noun “has not been mentioned previously in discourse, and its existence in the environment of speech is not asserted” (ibid.). I propose that this distinction (or something similar) is coded in Makary Kotoko but not by coding means within the relative clause. Instead, this distinction is coded by the presence/absence of the definite determiner, which I claim (in section 6.1.7) marks the referent of the noun it modifies as identifiable. That is, the coding of the existential status of the referent of a noun phrase in Makary Kotoko lies outside the domain of the relative clause. It will be noted in the examples of this chapter that the definite determiner (when present) is not included within the relative clause (as indicated by the square bracketing and subscripting of the relative clauses) since it is possible for the noun phrase to be coded with the definite determiner whether or not it is modified by a relative clause.

27.6 Complex relative clauses

To conclude the chapter, I provide a sampling of some of the complex relative clauses that occur in the corpus. In each case I have chosen relative clauses whose head noun is identifiable. As such the definite determiner (bolded) follows the relative clause, and serves as confirmation that all that precedes it is a relative clause. In the first example the relative clause contains two clauses conjoined with the sequential marker *k'ani* (CONJ).

- (21) **dəmo** [ro ndá-m dō mafi só k'ani
sheep MOD:F INCMPL-1PL:INCL bring hyena DET:M CONJ
The sheep that we were bringing to hyena then

- (b) n-ō dō mo ho]_{RC} **dó**
3SG:F-CMPL put 1PL:INCL:IO L.P. DET:F
it got away from us

- (c) dā ní sī dō
IMP:2SG:go L.P. IMP:2SG:take IMP:2SG:bring
go get (it and) bring (it)

In the following example one relative clause occurs within another. I have bolded the head noun of each relative clause and square bracketed and indexed both relative clauses.

- (22) ā fo də **nəmân** _{RC1}[ro ā i gə **mēgə**
3SG:M:CMPL give:APPL 3SG:F:IO money MOD:F 3SG:M:CMPL take PREP people
He gave her the money that he took from the people

- (b) _{RC2}[n ā la fōskā só k'ani ā nká-dō dan
MOD:PL 3SG:M:CMPL kill goat DET:M CONJ 3SG:M:CMPL PL-put 3PL:IO
that he slaughtered the goat then he divided (it) up

- (c) ngō l gwáne]_{RC2} **yó**]_{RC1} **dó**
place NMOD:F belongings DET:PL DET:F
in their belongings

In the next example a complement clause occurs within a relative clause.

- (23) **hâl** [ro a yá gó gí
act MOD:F NEUT:3SG:M want PREP COMP
What he doesn't want

- (b) tá-y ha rə wa]_{RC} **dó** a kō ho
PROH-3PL do:APPL 3SG:IO NEG DET:F NEUT:3SG:M tell L.P.
others to do to him, he should say

In the next example the relative clause contains an adverbial clause of reason, introduced with *gí*, as well as clauses linked with the sequential marker *aro* (CONJ).

- (24) **blō** [n ā dō ts'e gí a dīē aro
 man MOD:M 3SG:M:CMPL go outside COMP NEUT:3SG:M travel CONJ
The man who goes outside to travel then

- (b) a te hé a to]_{RC} só
 NEUT:3SG:M return L.P. NEUT:3SG:M return.home DET:M
turns around and returns home,

- (c) dó əl fōra rə
 3SG:F:IND NEUT:3SG:F surpass 3SG:M:DO
she surpasses him

In this last example, the copula complement of the presentational copula construction is the head noun of the relative clause. The presence of the definite determiner at the end of the line (e) indicates that all six of the preceding clauses are part of the relative 'clause', modifying the head noun.

- (25) [don]_{CS} ndó [**Kasa Bade** [n sá ro me sə Waday
 1SG:IND PRES Kasa Bade MOD:M day MOD:F sultan NMOD:M Waday
I'm Kasa Bade who, when the sultan of Waday

- (b) ā sōm kōmani n-g-u a Kugawa
 3SG:M:CMPL eat lord MOD:M-POSS-1SG PREP Kugawa
defeated my lord at Kugawa

- (c) nda to k'ani w-ō kadó rə nondó gí
 INCMPL:3SG:M return.home CONJ 1SG-CMPL follow 3SG:M:DO in.this.way COMP
and was returning home, then I followed him for a long time such that

- (d) w-ō ka rə aro m-ú la rə
 1SG-CMPL find 3SG:M:DO CONJ IRR-1SG kill 3SG:M:DO
if I found him then I would kill him,

- (e) dāmá w-ō ka rə wa]_{RC} sɔ]_{CC}
 ADVERS 1SG-CMPL find 3SG:M:DO NEG DET:M
but I didn't find him

27.7 Summary

This chapter has presented relative clauses in Makary Kotoko. Relative clauses can be verbal or non-verbal. A modifying marker is used to introduce relative clauses. This marker codes the gender/number of the head noun of the relative clause. The head noun generally has a grammatical or semantic function within the relative clause and within the matrix clause. There appear to be no restrictions on what functions the head noun can have in the relative clause. The head noun can be realized pronominally. There is no formal distinction made in the language between restrictive/non-restrictive relative clauses. The corpus provides evidence for complex relative clauses – that is, relative clauses which can contain other relative clauses, complement clauses, adverbial clauses, and sequentially linked clauses.

28 Reported speech

In this chapter I explore two related issues. The first is the coding means used to introduce directly reported speech into the discourse. This can be done in three ways: (i) the contrastive focus marker *da* (CONTR) occurs between the directly reported speech and the clause containing the verb of saying (i.e., the matrix clause), (ii) no formal marking occurs before the directly reported speech, and (iii) the marker *gí* (COMP) occurs between the matrix clause and the directly reported speech. I have not been able to determine if a distinct function is coded by the use of one or another of these means. The second issue addressed is the coding means used to introduce indirectly reported speech. In this case there is only one means available – the marker *gí* occurs between the matrix clause and the indirectly reported speech.

28.1 Directly reported speech

28.1.1 Contrastive focus marker *da*

The function of the marker *da* as coding contrastive focus on pre-subject noun phrases is discussed in section 26.2. Note that the marker follows the noun phrase it codes. This is illustrated in the following example.

Contrastive focus marker *da*

- (1) **don** **da** w-ō lū ngó ho
 1SG:IND CONTR 1SG-CMPL come PREP:2SG:M L.P.
I'm the one that has come to see you

- (b) kanía álu ts'e gó n
 therefore IMP:2SG:come outside with 1SG
so come outside with me

The contrastive focus marker can also code reported speech, occurring after the reported speech and before the matrix clause. The basic structure is:

DIRECTLY.REPORTED.SPEECH **da** **MATRIX.CLAUSE**

In the corpus, the marker *da* only occurs with the following three verbs of saying: *gə* ‘say/tell’, *kē* (*gə*) ‘ask’, and *i* (*he*) ‘reply’. An example of each is given below. The directly reported speech and the marker *da* are bolded.

Contrastive focus marker *da* with *gə* ‘say/tell’ in matrix

- (2) k'ani n-ō kō ho k'o dē **áŋa tó** **g-ō** **ɕi**
 CONJ 3SG:F-CMPL lift L.P. again S.R. no 2SG:F:IND 2SG-CMPL surprise
Then she lifted (him) up again but, “No, you surprised

- (b) **n** **fən** **m** **gá** **bələm** **da** a gə
 1SG:IO room NEUT:1PL:INCL wrestle again CONTR NEUT:3SG:M say
me. Let’s begin again,” he said

Contrastive focus marker *da* with *kē* (*gə*) ‘ask’ in matrix

- (3) **A:** ílé e le yahe m-í la rə
 only 3SG:M what even IRR-3PL kill 3SG:M:DO
“Whoever it may be, they’ll kill him”

- (b) **B:** **há** **i** **la** **rə** **da** **i** **kē** gə-n
 INTERJ NEUT:3PL kill 3SG:M:DO CONTR NEUT:3PL ask PREP-3SG:M
“Ha! They’ll kill him?” they asked

Contrastive focus marker *da* with *i he* ‘reply’ in matrix (cf. lines (c) and (d))

(4) **A:** ā gə gí tédɔ̃ n nondó só
 3SG:M:CMPL say COMP month MOD:M in.this.way DET:M
He said, “At such and such month

(b) **A:** we ka marágə fogó ...
 NEUT:2PL find RECIP all
gather together, all of you ...”

(c) **B:** əl mbîn da
 NEUT:3SG:F be.good CONTR
“Very well,”

(d) **B:** mēgə yó ē i rə hê
 people DET:PL 3PL:CMPL NEUT:3PL 3SG:M:IO L.P.
the people replied

Note in the previous example that A’s speech is introduced with the marker *gí* while B’s response makes use of the marker *da*. This is a common, though not universal, pattern in the corpus, where the two different markers serve as ‘bookends’ for the reported conversation.

28.1.2 No formal marking

It is possible for there to be no marker before the reported speech. The basic structure is:

(MATRIX) Ø DIRECTLY.REPORTED.SPEECH

The next two examples have a verb of saying in the matrix clause directly followed by the reported speech (i.e., with no intervening marker). The directly reported speech is bolded.

No formal marking with *gə* ‘say/tell’ in matrix

(5) k'ani gə̀lk'a dó əl gə íblísə só
 CONJ old:F DET:F NEUT:3SG:F say satan DET:M
Then the old woman said to Satan,

- (b) **g-ō ndə dán wá**
 2SG-CMPL see 3PL:DO TAG
“You saw them, didn’t you?”

No formal marking with *kē* (*gə*) ‘ask’ in matrix

- (6) **k'ani gərəm ro-gə-n dó əl kē gə-n**
 CONJ woman MOD:F-POSS-3SG:M DET:F NEUT:3SG:F ask PREP-3SG:M
Then his wife asked him,

- (b) **kán g-ō dē ngwájé dó yagí ā sī kla**
 2SG:M:IND 2SG-CMPL go wrestling CONJ who 3SG:M:CMPL take victory
“When you went to the wrestling tournament, who won?”

In a number of cases there is no verb of saying preceding the directly reported speech. The reported speech comes directly after another clause. Context is sufficient to determine who is speaking to whom. In examining the verbs for which this occurs, one class of verbs for which this is particularly frequent is the class of verbs of motion. In these instances, the speaker moves to the addressee (or vice-versa) and then the directly reported speech follows. This is illustrated in the next two examples.

Directly reported speech after a verb of motion: *lū* ‘come’

- (7) **ā lū ts'e k'o na wē la álgə wá**
 3SG:M:CMPL come outside again now 2PL:CMPL kill person TAG
He came out again, “Now you’ve (gone and) killed someone, have you?”

Directly reported speech after a verb of motion: *dē* ‘go’

- (8) **gáko do ā dē gə-də ho**
 front DET:F 3SG:M:CMPL go PREP-3SG:F L.P.
Then he went to her,

- (b) **íya ne gó sabá n-g-u nē la álgə**
 mother 1PL:EXCL:IND with friend MOD:M-POSS-1SG 1PL:EXCL:CMPL kill person
“Mother, a friend and I killed someone”

The clause preceding the directly reported speech can contain a verb other than verbs of saying or of motion. In fact, the corpus has a number of instances where directly reported speech follows clauses containing a variety of verbs. There appears to be no restriction on which verbs can precede directly reported speech. The next two examples are illustrative.

- (9) k'ani n-ō ka blō n gó ngúrdá só
 CONJ 3SG:F-CMPL find man MOD:M with disease(SP) DET:M
Then she found a man with a disease,

- (b) gə sī n gə mban n wá
 NEUT:2SG take 1SG:DO NEUT:2SG wash 1SG:DO TAG
“You’ll take me and bathe me, won’t you?”

- (10) k'ani sáne yó i dǎlá
 CONJ wrap.around.skirt DET:PL NEUT:3PL not.exist
Then the wrap-around skirts were gone,

- (b) sáne yo yagí da ā já ho
 wrap.around.skirt DET:PL who CONTR 3SG:M:CMPL gather L.P.
“Who was it who took the wrap-around skirts?”

Directly reported speech can also be preceded by a sequential marker, as in the next two examples. In the first example, it follows *aro* (CONJ). In the second, it follows *k'ani* (CONJ). The functions of the sequential markers are addressed in section 29.2.

Directly reported speech after the sequential marker *aro*

- (11) n-ō dǎ wógə
 3SG:F-CMPL put quarrel
If she became angry, then,

- (b) aro **tó** **gə** **yá** **gə** **ɕi** **le**
 CONJ 2SG:F:IND NEUT:2SG want PREP thing:CONC what
 (understood: *I would say*) “*What do you want?*”

Directly reported speech after the sequential marker *k'ani*

- (12) fā-e ngó da m-í do kən ts'e yígá ti
 year-PL MOD:PL:POSS:2SG:M CONTR IRR-3PL take 2SG:M outside only just
 “*I’m going to kill you*” (*lit. your years will take you outside only*)

- (b) k'ani **há** **nondó** **wo**
 CONJ INTERJ in.this.way POL
 Then, “*Ha! Is that so?*”

28.1.3 Marker *gí*

The marker *gí* is, by far, the most frequent means of introducing directly reported speech. The

basic structure is:

(MATRIX.CLAUSE) *gí* REPORTED.SPEECH

In the corpus, the marker *gí* occurs with a number of verbs of saying. I provide illustration with three verbs (*gə* ‘say/tell’, *kē* (*gə*) ‘ask’, and *i* (*he*) ‘reply’) below. The marker *gí* and the directly reported speech are bolded.

Marker *gí* with *gə* ‘say/tell’ in matrix

- (13) abá n-gó-dan ā gə rə **gí**
 father MOD:M-POSS-3PL 3SG:M:CMPL say 3SG:M:IO COMP
His father said to him,

- (b) sī **klayaskó**
 IMP:2SG:take young.woman
 “*Marry a young woman (i.e. a virgin)*”

Marker *gí* with *kē* (*gə*) ‘ask’ in matrix

- (14) *ā* *kē* *gə-n* ***gí*** [***nyi*** ***ró***]_{CC} [***nyi*** ***le***]_{CC}
 3SG:M:CMPL ask PREP-3SG:M COMP thing:ABSTR DEM:F thing:ABSTR what
He asked him, “What is it?” (i.e., What’s going on?)

Marker *gí* with *i he* ‘reply’ in matrix

- (15) **A:** [*wre*]_{CS} [*mēgə* *garo*]_{CC} *a* *fən* *só*
 2PL:IND people how.many PREP room DET:M
“How many of you are there in the room?”

- (b) **B:** *n-ō* *i* *hé* ***gí*** ***ne*** ***ts’ā*** ***ne***
 3SG:F-CMPL reply L.P. COMP 1PL:EXCL:IND only 1PL:EXCL
She replied, “Just us”

The marker *gí* can follow verbs other than verbs of saying before directly reported speech.

Context is sufficient to determine who is speaking to whom. As was noted for no formal marking above,

this is frequent for verbs of motion as illustrated below.

Directly reported speech after a verb of motion and *gí*: *lū* ‘come’

- (16) *sabá-e* *n-gá-də* *ē* *lū* *gí* ***Azié*** ***Azié*** ***ts’āga***
 friend-PL MOD:PL-POSS-3SG:F 3PL:CMPL come COMP Azie Azie IMP:2SG:stand.up
Her friends came, “Azie, Azie, get up”

The clause preceding the marker *gí* and the directly reported speech can contain a verb other than a verb of saying or of motion. In fact, there appears to be no restriction on which verbs can precede the marker *gí* and the directly reported speech. The following example provides illustration.

- (17) *mafi* *ā* *i* *gə* *sətá* *só* *nówó* ***gí***
 hyena 3SG:M:CMPL snatch PREP leopard DET:M finger COMP
Hyena pointed (his) finger at Leopard,

- (b) **don w-ō gə kən gí ɔ̄ji le**
 1SG:IND 1SG-CMPL say 2SG:M:IO COMP thing:CONC what
“What did I say to you?”

28.2 Indirectly reported speech

Of the three means described above to introduce directly reported speech, only the marker *gí* is used to introduce indirectly reported speech. This is illustrated in the next two examples. This first example is the indirectly reported speech of example (13) above (from the perspective of the person who was spoken to). Note that the directly reported speech of (13) uses the 2SG imperative form while the indirectly reported speech below uses the 1SG neutral aspect form.

Marker *gí* with *gə* ‘say/tell’ in matrix (indirectly reported speech)

- (18) **abá n-gó-ne só ā gə n gí**
 father MOD:M-POSS-1PL:EXCL DET:M 3SG:M:CMPL say 1SG:IO COMP
My father told me to

- (b) **u sī klayaské**
 NEUT:1SG take young.woman
marry a young woman (i.e. a virgin)

In this next example, someone other than the one who was spoken to is reporting the speech. Note the use of 3SG subject marker. Were it directly reported speech, the 2SG subject marker would have been used.

Marker *gí* with *kē* (*gə*) ‘ask’ in matrix (indirectly reported speech)

- (19) **gáko dó ē kē gə-n gí**
 front DET:F 3PL:CMPL ask PREP-3SG:M COMP
Then they asked him,

- (b) a yá gə ɔ̃ji le
 NEUT:3SG:M want PREP thing:CONC what
what he_i wanted

28.3 Summary

In this chapter I have addressed two issues: directly reported and indirectly reported speech. For directly reported speech, I have presented the three coding means used to introduce speech into the discourse: (i) the contrastive focus marker *da* (CONTR) occurs after the directly reported speech, (ii) no formal marking occurs before the directly reported speech, and (iii) the marker *gí* (COMP) occurs before the directly reported speech. I have also shown that the marker *gí* following the matrix clause is the only means used to introduce indirectly reported speech. This marker is also used as a complementizer with verbs other than verbs of saying, and is used to introduce adverbial clauses of reason. These two issues are presented in section 29.6 of the following chapter.

29 Combining clauses

In discussing clause combining in Chadic languages, Frajzyngier (1996:23) proposes a three way contrast: (i) asyndetic parataxis, (ii) coding for sequential relationships, and (iii) subordination (including complement clauses and adverbial clauses). Makary Kotoko exhibits each of these plus a marker which appears to code non-sequentiality of the situations described by the clauses it combines. The table below summarizes the meaning/function of the markers under discussion. All the markers occur in clause initial position unless noted below.

Marker	Meaning/Function
∅	determined by context and aspect/mode coding
k'ani	sequential marker for individual past time events
aro	sequential marker and marker of temporal/conditional apodosis
dó	non sequential marker (clause final)
ngō ro ... k'ani	'when ... then'
sé ro (gí) ... aro	'when/if ... then'
gí	complementizer / marker of adverbial clause of reason
(aro) sérāngí	'before'
yahe	concessive (clause final)
đamá	adversative
waro	'otherwise'
lá(bā)	disjunction
wāla ... wāla	(bisyndetic) disjunction 'either ... or'
walá ... walá	(bisyndetic) negative disjunction 'neither ... nor'
asa	if
séy	'except, only if'
ílé	'except, only (if/until), unless'
kanía	consequence
tāmo	consequence (clause final)

Table 29.1 Clause combining markers

29.1 Asyndetic parataxis

The simplest way to link clauses together is with no intervening marker between the clauses.

This means can be used to link clauses within a sentence, and to link sentences together. In fact, it is not obvious how to distinguish when two clauses constitute separate sentences or are part of a single

sentence. Since the clauses are conjoined asyndetically, there is no expressed relationship between them.

The addressee is left to interpret the relationship between the clauses based on context and the

aspect/mode coding within each clause. When clauses combined in this manner each contain the same

aspectual/modal coding, the situations described in the clauses are most often understood to follow each

other sequentially. This is shown in the next (somewhat exceptional) example where a series of five

clauses in the completive aspect are juxtaposed. I have square bracketed and subscripted each of the five

clauses. It is often the case that the subjects of the clauses that are asyndetically conjoined have the

same referent. However, this is not necessarily the case, as can be seen in the switch of subjects from

the fourth to the fifth clause in the example below.

Juxtaposed completive aspect clauses

(1) [ē dā ní]₁ [ē do rə hó]₂
 3PL:CMPL go L.P. 3PL:CMPL take.to 3SG:M:IO house
They went and took him (to their) home

(b) [ē so-l rə he lán]₃
 3PL:CMPL arrive-CAUS 3SG:M:IO L.P. completely
they welcomed him thoroughly

(c) [ē fo rə use]₄ [ā sōm]₅
 3PL:CMPL give:APPL 3SG:M:IO food 3SG:M:CMPL eat
they gave him food and he ate

More commonly two clauses are conjoined asyndetically. Fairly often the verb of the first clause provides directional/positional information for the situation of the following clause, relative to the established spatial point of reference, generally derived from the preceding context. The verbs that most frequently occur in the first clause are: *dō* (*ni*) ‘go’, *lū* ‘come’, *ts'āga* ‘get up’, *te* (*he*) ‘return’, and *fě* *si* *he* ‘turn around’.

In this next example the context indicates that a group of men is sitting in an eating circle, about to enjoy a meal together.

Juxtaposed completive aspect clauses

- (2) k'ani blō pāl ā ts'āga ā sī sāw gí ...
 CONJ man one 3SG:M:CMPL get.up 3SG:M:CMPL take stick COMP
Then one man got up and took a stick (in order) to ...

The next three examples show asyndetically conjoined clauses in irrealis mode, neutral aspect, and the imperative, respectively.

Juxtaposed irrealis mode clauses

- (3) aro m-á te hé
 CONJ IRR-3SG:M return L.P.
Then he'll come back

- (b) m-á fo kən hálbō n-gə-n đamá ...
 IRR-3SG:M give:APPL 2SG:M:IO shoe MOD:M-POSS-3SG:M ADVERS
and give you his shoes, but ...

Juxtaposed neutral aspect clauses

- (4) marge ro dó da
 ring DEM:M DET:M CONTR
As for this ring,

- (b) wánte u ká ts'e u fo kən wo
 perhaps NEUT:1SG put outside NEUT:1SG give:APPL 2SG:M:IO POL
should I take it off and give it to you?

As discussed in section 24.6, one means of conjoining imperatives is by asyndetic parataxis. Other means are discussed in that section as well.

Juxtaposed imperative clauses

- (5) aro yá gə bisî hó lə aro ...
 CONJ IMP:2SG:want PREP mat IMP:2SG:put PRO CONJ
Then get a mat and put (it over) it (i.e., a hole)

Unlike other aspect/mode codings, when asyndetically conjoined clauses are in the incomplete aspect, the situations described in the clauses are not generally understood to follow each other sequentially, given the function of the incomplete to indicate that the action described by the verb is not complete (as described in section 13.2). Instead, the situations described in clauses in the incomplete thus conjoined are generally understood to occur either simultaneously, or that the second clause provides clarification/amplification regarding the situation in the first clause, as seen in the next example.

Juxtaposed incomplete clauses

- (6) wo dó dɛ
 village DET:F S.R.
(At) the village
- (b) ndá-y swé-l kangá ndá-y swé-l gundʒá gí ...
 INCMPL-3PL cry-CAUS drum(SP) INCMPL-3PL cry-CAUS drum(SP) COMP
they were playing drums, they were playing messenger drums (in order) to ...

Asyndetically conjoined clauses need not have the same aspect/mode coding in each clause. The relationship between the situations described in the clauses is determined by context and the aspect/mode codings that occur. The next three examples provide illustration of some possible combinations. Many others occur in the corpus.

In this example a completive clause is conjoined to a following incomplete clause. Given the established functions of the completive and incomplete aspects, it is understood that the action of the second clause is occurring while the action of the first clause is carried out.

Completive aspect clause juxtaposed to incomplete aspect clause

- (7) ē lū ndá-y g-amsó k'úm k'úm k'úm k'ani ...
 3PL:CMPL come INCMPL-3PL say-word IDEO IDEO IDEO CONJ
They came talking quietly (to each other)

In this next example, a clause in irrealis mode is conjoined to a clause in neutral aspect. The situation of the second clause is understood to follow that of the first. This is very similar to example (3) above where irrealis mode occurs in both clauses.

Irrealis mode clause juxtaposed to neutral aspect clause

- (8) đamá m-ú te hé
 ADVERS IRR-1SG return L.P.
But I'll go back
- (b) u do kən gə abá n-gé-ne ho aro ...
 NEUT:1SG take.to 2SG:M:IO PREP father MOD:M-POSS-1PL:EXCL L.P. CONJ
and take you to my father, then ...

In this final example, a clause with incompletive aspect is conjoined to a clause in neutral aspect. The first clause is describing a general situation in the past (hence the incompletive aspect). The situation of the second clause provides information about the general situation of the first clause.

Incompletive aspect clause juxtaposed to neutral aspect clause

(9) ndá-y fêw ngō ro so do wāləm a lə
 INCMPL-3PL dig place MOD:F NONSPEC:F as hole PREP PRO
They would dig a hole at a place (in front of the door)

(b) i fə də do kú-l-fən
 NEUT:3PL call 3SG:F:DO as forehead-NMOD:F-hut
that they call a door sill

29.2 Sequential markers *k'ani* and *aro*

Makary Kotoko appears to have two sequential markers: *k'ani* (CONJ) and *aro* (CONJ). These are the most frequent (marked) means of combining clauses. I describe them together initially as they seem to fulfill complementary roles within the discourse. They both indicate that the situation of the clause marked with the sequential marker temporally (or in some cases, logically) follows the situation of a preceding clause. This is generally the immediately preceding clause though not necessarily so. Both markers can be used in past time frames though *k'ani* links specific events while *aro* links habitual or generic events in the past. The marker *aro* is also frequently used in other time frames to indicate that the situation of the clause marked with *aro* follows the situation of a preceding clause. In addition, *aro* is used to introduce the apodosis in conditional sentences. Though there are exceptions to the proposed functions, these appear to provide a fairly accurate description of their most frequent functions with the discourse.

29.2.1 *k'ani*

As noted above, the sequential marker *k'ani* is often used to sequentially link specific situations in a past time frame. This is shown below where the first three clauses are linked with *k'ani*. Note the use of asyndetic parataxis to conjoin the three clauses of line (b).

(10) álgə só ē ká rə bəndəgə **k'ani** ā k'ō hé
 person DET:M 3PL:CMPL hit 3SG:M:IO gun CONJ 3PL:CMPL fall L.P.
They shot the person and he fell down

(b) **k'ani** ē sī ē dā ní ē hó sárká
 CONJ 3PL:CMPL take 3PL:CMPL go L.P. 3PL:CMPL put latrine
then they took (the body) and went and put (it) in the latrine

Looking at the preceding example might suggest that the use of *k'ani* is conditioned by whether the referent of the subject of the clause marked with *k'ani* is the same or different from the preceding clause. The marker *k'ani* would be used when the referent of the subject of the clause is different from the subject of the preceding clause. That this is not, in fact, the case can be seen in the following example where the two clauses sequentially linked with *k'ani* have the same referent for subject.

(11) ā jêw wələm tʃílán **k'ani** ā hó lə abá só
 3SG:M:CMPL dig hole IDEO CONJ 3SG:M:CMPL put PRO father DET:M
He dug a deep hole and put his father in it

The completive is by far the most frequent aspect/mode coding for clauses linked by *k'ani*. However, other aspect/mode codings can occur, as in the following example where the volitive is used in the preceding clause to indicate something the referent of the subject was about to do.

- (12) gáko dó sá pál yá-g-a dā ngwáfé
 front DET:F day one VOL-LINK-3SG:M go wrestling
Then one day he was going to go to a wrestling match

- (b) **k'ani** ā lāba asám ā ba gə ngō
 CONJ 3SG:M:CMPL grind poison 3SG:M:CMPL tie PREP place
then he ground up some poison and tied (it) up in a place

It is possible for the sequential marker *k'ani* to occur within reported speech as well. In the example below it links two clauses in completive aspect.

- (13) aro sá ro w-ō só wo dó
 CONJ day MOD:F 1SG-CMPL enter village DET:F
“Then, when I enter the village

- (b) **k'ani** w-ō ka gēlk'ə a hó
 CONJ 1SG-CMPL find old:M PREP house
and I find a old man at (his) home

- (c) aro m-ú la dán gó ló só fogé
 CONJ IRR-1SG kill 3PL:DO with son DET:M all
then I'll kill both him and his son”

Similarly, the sequential marker *k'ani* can occur within complex relative clauses. The context of this next example is that a young boy is giving a woman money that he took from other people. The narrator uses two relative clauses – the first to clarify which money he gave, and the second (contained within the first RC) to clarify which people he took the money from. To explain which people he is referring to, the narrator begins a brief narrative within the second RC using *k'ani* (at the beginning of line (c)) to conjoin the two clauses of the narrative.

- (14) **k'ani** ā fo də nəmân
 CONJ 3SG:M:CMPL give:APPL 3SG:F:IO money
Then he gave her the money

- (b) _{RC1}[ro ā i gə mēgə _{RC2}[n ā la fískə só
 MOD:F 3SG:M:CMPL snatch PREP people MOD:PL 3SG:M:CMPL kill goat DET:M
that he took from the the people that he had killed the goat

- (c) **k'ani** ā nká-də dan ngō l gwáne]_{RC2} yó]_{RC1} dó
 CONJ 3SG:M:CMPL PL-put 3PL:IO place NMOD:F belongings DET:PL DET:F
then he distributed (it) among their belongings

29.2.2 aro

Like *k'ani*, the sequential marker *aro* can also link clauses in past time but the situations in those clauses are generally habitual or generic. Quite often the incompletive aspect is used in one or both clauses. In this next example, *aro* links a clause in the incompletive with a clause with neutral aspect. The use of the incompletive in combination with the sequential marker *aro* is the means of indicating that the situations are repeated events in the past.

- (15) ngō ro ndá-l dē lə **aro** əl dē ní gó də
 place MOD:F INCMPL-3SG:F go PRO CONJ NEUT:3SG:F go L.P. with 3SG:F
Where(ver) she_i would go, she_x would go with her_i

In the following example, there are three clauses (in the incompletive) situated in the past that are linked with the sequential marker *aro*. The events described are not specific, but generic. They refer to what people would generally do. The context of this example is describing how people used to go about making clothes, though not referring to any people in particular.

(16) ndá-y dǎwo sare **aro** dǎ da ndá-y hǎn do sǎgá
 INCMPL-3PL buy thread CONJ 3SG:F:IND CONTR INCMPL-3PL do MMR cloth
They would buy thread then with that they would make cloth (i.e., weave the thread)

(b) **aro** ndá-y hábu sǎrǎngí ndá-y so lǎ do kasúmū
 CONJ INCMPL-3PL sew before INCMPL-3PL wear PRO as clothing
then they would sew it together before wearing it as clothes

The sequential marker *aro* is also used in non-past time frames. This next example contains a sequence of four events projected in the future, each coded with the irrealis mode, and linked with *aro*.

(17) n-ō gǎ rǎ gí mǎ-l i kǎn marǎgǎ
 3SG:F-CMPL say 3SG:M:IO COMP IRR-3SG:F snatch 2SG:M:IO RECIP
She said she would give you trouble

(b) **aro** hó dǎ m-á lū a dǎwo ngó
 CONJ house DET:F IRR-3SG:M come NEUT:3SG:M buy PREP:2SG:M
then the house, he would come and buy (it) from you

(c) **aro** m-á sī dǎ
 CONJ IRR-3SG:M take 3SG:F:DO
then he would take her (as his wife)

(d) **aro** nǎmǎn dǎ dǎn da m-í ǰǎ ho
 CONJ money DET:F 3PL:IND CONTR IRR-3PL gather L.P.
then, the money, they would gather (it) up

The marker *aro* is often used to introduce the apodosis of a conditional/temporal construction. Frequently the protasis is in the completive aspect, and the apodosis in the irrealis mode, as shown below.

(18) gǎlk¹a n-ō só hó ro-ngó
 old:F 3SG:F-CMPL enter house MOD:F-POSS:2SG:M
if an old woman enters your house

- (b) **aro** mǎ-l kál hó ro-ngó
 CONJ IRR-3SG:F destroy house MOD:F-POSS:2SG:M
then she'll ruin your home life

However, other aspect/mode codings are possible, as shown in the next example with completive aspect in the protasis and the imperative in the apodosis.

- (19) kanía ā lū
 therefore 3SG:M:CMPL come
Therefore, if/when he comes

- (b) **aro** nəmân garo yahe dǔ gǎ-n ho
 CONJ money how.much even IMP:2SG:put PREP-3SG:M L.P.
then however much money put it on him (i.e., make him pay it)

The marker *aro* often occurs at the beginning of directly reported speech, logically linking what the speaker has to say with what someone has just said, as in line (c) of the next example.

- (20) **A:** ne fo kən dīnar dúbú
 NEUT:1PL:EXCL give:APPL 2SG:M:IO gold thousand
“(What if) we give you a thousand gold (pieces)”

- (b) **B:** áʔa m-ú sī wa
 no IRR-1SG take NEG
“I won't take it”

- (c) **A:** **aro** ne fo kən ʃá
 CONJ NEUT:1PL:EXCL give:APPL 2SG:M:IO cow
“Then (what if) we gave you a cow”

To conclude this section, compare the next two examples taken from the same text which contrast the functions of *aro* and *k'ani*. In the first example, the speaker is giving the addressee instructions to follow. He links the first two imperative forms with *aro*.

- (21) *ʃêw wāləm párán aro yá gə bisî hó lə*
 IMP:2SG:dig hole wide CONJ IMP:2SG:want PREP mat IMP:2SG:put PRO
Dig a wide hole then get a mat and put (it over) it

A little further on in the narrative, the original addressee carries out the instructions he was given. In this case the actions are linked with the sequential marker *k'ani*.

- (22) *ā ʃêw wāləm ʃílán k'ani ā hó lə abá só*
 3SG:M:CMPL dig hole IDEO CONJ 3SG:M:CMPL put PRO father DET:M
He dug a deep hole and put his father in it

29.3 Non-sequential marker *dó*

Unlike *k'ani* and *aro*, *dó* occurs clause finally.¹ That is, there is a pause after it and before the clause that follows. I propose that the function of *dó* is to link clauses which are not in temporal succession within the narrative. That is, the clause preceding *dó* does not temporally precede the clause that (generally) follows. As such, it commonly occurs before interrogative clauses, non-verbal predication, imperatives, and negative clauses. It also links clauses whose situations occur simultaneously. I present each of these possibilities below, the sum of which provides support for the function I propose for the marker *dó*.

The marker *dó* is often used to link a following interrogative to the situation of the preceding clause. The interrogative can be polar, tag, or content, as shown in the next three examples.

¹ The non-sequential marker *dó* is identical in form with the feminine definite determiner *dó*. It is possible that the former comes from the latter though I don't address this issue here.

Polar question follows *dó*

- (23) u yā wi-sə m **dó** mǎ-g ts'am wo
 NEUT:1SG become husband-LINK MOD:M:POSS:2SG:F CONJ IRR-2SG agree POL
that I become your husband, would you agree (to it)?

Tag question follows *dó*

- (24) ndá-y g-amsǎ **dó** ndá-g ʃin gó wá
 INCMPL-3PL say-word CONJ IMPR-2SG hear PREP TAG
They're speaking; you hear (them), don't you?

Content question follows *dó*

- (25) mo de skəm ndá-l la mo **dó** hâl wadí
 1PL:INCL:IND S.R. hunger INCMPL-3SG:F hit 1PL:INCL:DO CONJ act what
We're dying of hunger, so what should we do?

Though infrequent, it is possible for the interrogative clause to precede the clause marked with *dó*, as shown below for a content question.

- (26) abá n só
 father MOD:M:POSS:2PL DET:M
Your father,
- (b) ā gə kən gí ɕi le
 3SG:M:CMPL say 2SG:M:IO COMP thing:CONC what
what did he say to you
- (c) [kǎn]_{CS} nda [lǎ]_{CC} do k'áʃí **dó**
 2SG:M:IND be.at:M PRO as small CONJ
when you were young?

Non-verbal predication can follow the marker *dó* as well. This would be in keeping with its proposed function since non-verbal predication generally provides descriptive information to the narrative. In the next example, the conjunction *dó* (at the end of line (b)) precedes a non-verbal predication (specifically, an instance of the juxtaposition construction) that occurs in line (c). The

context of the story is the time period when the main access road between Nigeria and Chad was being built through the Kotoko territory. The road was built from both ends and joined in the middle.

Non-verbal predication follows *dó*

- (27) tōlu nda só m-á lū
 road DEM:M DET:M IRR-3SG:M come
That road, it was coming (along)

- (b) gí m-á fá si gē-i marágə **dó**
 COMP IRR-3SG:M pick REFL mouth-NMOD:PL RECIP CONJ
to be brought together,

- (c) [álge [n ē ɖí tən]_{RC} yó]_{VCS} [dúbú-é]_{VCC}
 person:PL MOD:PL 3PL:CMPL remain ground DET:PL thousand-PL
(the number of) the people that died (in the process) was (in the) thousands

A clause in the imperative mode can also follow the conjunction *dó*.

Imperative follows *dó*

- (28) kən ndá-g dē ní gə ts'a lam ho **dó**
 2SG:M:IND INCMPL-2SG go L.P. NEUT:2SG cut river L.P. CONJ
You're going to cross the river,

- (b) do n ní
 IMP:2SG:take 1SG:IO L.P.
take me (with you)

It is often the case that the referents of the subjects of the clauses that are conjoined with *dó* are different. That this is not a necessary condition for the use of *dó* can be seen in both the preceding example and the following one.

The conjunction *dó* also occurs before (and after) a negative clause. Since the situation of the negated clause did not happen it is not in temporal succession relative to the other clause.²

Negative clause follows *dó*

- (29) k'ani ā dā ní **dó** ā te hé k'o wa
 CONJ 3SG:M:CMPL go L.P. CONJ 3SG:M:CMPL return L.P. still NEG
Then he left and didn't come back again

In this clause, the negation occurs within the clause marked by *dó*. The context of this example is that a boy has told the sun not to melt his fat.

Negative clause precedes *dó*

- (30) sá de
 sun S.R.
The sun_i,

- (b) nyi ro so má əl wālə gə-də wa **dó**
 thing:ABSTR MOD:F NONSPEC:F FOC NEUT:3SG:F hurt PREP-3SG:F NEG CONJ
nothing bothers it_i,

- (c) n-ō fē-l do hē
 3SG:F-CMPL melt-CAUS PRO L.P.
it_i melted it_k (i.e., the fat)

The conjunction *dó* can also link events which are simultaneous. In this next example the first line contains a matrix and a following adverbial clause of reason. The aspect of the matrix is the incomplete, expressing an incomplete action. In this context, it is understood as an ongoing action. The two clauses which follow the conjunction *dó* are in the neutral aspect. Again, context (by the

² As Frajzyngier (1996) notes: “A negative clause after an affirmative describes a nonevent” (1996:41).

repetition of the clause in line (b)) indicates that the action of the clauses which follow *dó* unfold as the action expressed in the matrix of the first line happens.

- (31) k'ani só ndá-l dē ní gí əl bō hé **dó**
 CONJ sun INCMPL-3SG:F go L.P. COMP NEUT:3SG:F pierce L.P. CONJ
Then the sun was going to set

- (b) a kadé d́ a kadé d́
 NEUT:3SG:M follow 3SG:F:DO NEUT:3SG:M follow 3SG:F:DO
and he followed it and followed it ...

29.3.1 Comparing *k'ani*, *aro* and *dó*

Frajzyngier (1996:79) points out that sequential markers in Chadic languages can follow temporal adverbs. For Makary Kotoko both sequential markers (*k'ani* and *aro*) and the non-sequential marker *dó* can follow temporal adverbs. This is shown in the next three examples with the temporal adverb *fadé* 'night' preceding the marker. This gives an opportunity to contrast the functions of these three markers as well. In the first example the temporal adverb *fadé* 'night' precedes the sequential marker *k'ani*. In keeping with the proposed function for *k'ani* to sequentially link specific events in (generally) past time, this clause indicates that night time came and then the event described in the clause introduced by *k'ani* occurred.

Temporal adverb before sequential marker *k'ani*

- (32) **fadé** **k'ani** n-ō só fən só
 night CONJ 3SG:F-CMPL enter hut DET:M
Night (fell) then she entered the hut

The next two examples are from the same text. In the first, the speaker lays out what he plans to do when night comes. The sequential marker *aro* is used to link (probable) future events.

Temporal adverb before sequential marker *aro*

- (33) **fade aro** m-ú dē ní u sī u dō mo
 night CONJ IRR-1SG go L.P. NEUT:1SG take NEUT:1SG bring 1PL:INCL:IO
(When) night (comes), I'll go get (it) and bring (it) to us

A little further on in the narrative, night time comes and the original speaker begins to carry out his proposed plan. With the use of the non-sequential marker *dó* after *fade*, it is understood that the action of the clause was carried out during the night.

Temporal adverb before non-sequential marker *dó*

- (34) **fade dó** dasí maʃi ā sī gáskōr n-gə-n ...
 night CONJ enough hyena 3SG:M:CMPL take woven.basket MOD:M-POSS-3SG:M
At night time, hyena took his woven basket ...

29.4 *ngō ro ... k'ani* 'when ... then'

A temporal protasis in a past time frame is constructed like a relative clause with *ngō* 'place' as the head noun. The apodosis in such cases is introduced with *k'ani*, as shown below. The most frequent aspect/mode coding in such constructions is to have completive aspect in both clauses, indicating that the situations described in both clauses are complete.

- (35) **ngō** [ro n-ō ba he]_{RC} **k'ani** n-ō wē gōrəm
 place MOD:F 3SG:F-CMPL bear.a.child L.P. CONJ 3SG:F-CMPL give.birth.to woman
When she gave birth, she gave birth to a girl

Though the use of completive aspect in both clauses of the construction is by far the most frequent situation, other aspect/mode codings are possible, depending upon context. In this next example, the temporal protasis is in the volitive mode, the apodosis is in the completive aspect.

- (36) **ngō** [ro yá-g-a dē ʃáfū]_{RC}
 place MOD:F VOL-LINK-3SG:M go grass
When he was heading out to the bush,

- (b) **k'ani** ngwí dó n-ō kadé rə
 CONJ deaf DET:F 3SG:F-CMPL follow 3SG:M:DO
the deaf girl followed him

29.5 *sé ro (gí) ... aro* 'if/when ... then'

In similar fashion, a temporal/conditional protasis can be constructed using the term *sé* 'day' as the head noun of a relative clause, and followed by the apodosis introduced by the sequential marker *aro*. Whether time or condition is expressed depends upon context. When time is conveyed, the time frame is generally understood as in the future. Most frequently, the protasis has completive aspect and the apodosis is in the irrealis mode.

- (37) **sé** [ro wē gá n lə wa]_{RC}
 day MOD:F 2PL-CMPL build 1SG:IO PRO NEG
If you don't build me (it) there,

- (b) **aro** m-ú ts'am wa
 CONJ IRR-1SG agree NEG
I won't accept (that situation)

A variety of aspect/mode codings are possible in the protasis and apodosis. In the next example, the incomplete is used in the protasis and the imperative in the apodosis.

- (38) **só** [ro mts'î nda lū gó ts'āle]_{RC}
 day MOD:F wind INCMPL:3SG:M come with strength
When the wind blows with force,

- (b) **aro** k'ō go dón
 CONJ IMP:2SG:catch PREP IDEO
hold onto (it) firmly

A variant of this construction has the complementizer *gí* following the head noun *só* 'day' and the modifying marker *ro* (MOD:F). There appears to be no distinction in function with this variant. The complete occurs in the protasis and the imperative in the apodosis in the next example.

- (39) **só ro gí** ā lū ngó ho
 day MOD:F COMP 3SG:M:CMPL come PREP:2SG:M L.P.
If/when he comes to you

- (b) **aro** tá-g g-amsó wa
 CONJ PROH-2SG say-word NEG
don't speak (to him)

29.6 *gí* (COMP)

In chapter 28 I discussed the use of the marker *gí* (COMP) to introduce (directly and indirectly) reported speech. This marker is also used to introduce complement clauses and adverbial clauses of reason.³

Which of these is expressed is not coded by the marker *gí* alone, but in combination with information about the argument structure of the verb, and the context. Since the same coding means is used for both,

³ Adverbial clauses of 'reason' can be understood by context to express reason or purpose. There is no formal distinction made between these two notions.

I discuss them together here and provide evidence for distinguishing the two functions. The basic structure is: **MATRIX.CLAUSE** *gí* **CLAUSE**. To understand how to distinguish the two functions, consider the next four examples, each containing the prepositional verb *yá gə* ‘want’. In this first example the object of the prepositional verb is realized in its canonical position (after the preposition). The preposition has its ‘transitive’ form – that is, the form that it takes when its noun phrase object follows it (cf. section 11.2 for the behavior of the ambitransitive prepositions). I have bolded the prepositional verb and its object.

- (40) don só u **yá** **gə** **amefú** i **ēni** dəge
 1SG:IND DET:M NEUT:1SG want PREP gruel NMOD:PL milk INTENS
I really want milk gruel

It is possible to place the object of the prepositional verb in pre-subject position or to have it understood by context. In such cases, the preposition takes its ‘intransitive’ form *gó* – the form that it takes when no noun phrase object follows, as shown below. I have bolded the pre-subject noun phrase which corresponds with the object of the preposition.

- (41) **ā** gə dan gí
 3SG:M:CMPL say 3PL:IO COMP
He told them that
- (b) **man-sén** **do** **da** a **yá** **gó**
 sultan-NOM DET:F CONTR NEUT:3SG:M want PREP
it was the chieftaincy that he wanted

If the prepositional verb *yá gə* has a complement clause instead of a noun phrase object, the preposition has the form *gó*, and the complement clause is introduced by *gí*, as in the next example. I have bolded the matrix verb and its complement clause.

- (42) k'ani a **yá** **gó** **gí** **ē** **tāda** **ga**
 CONJ NEUT:3SG:M want PREP COMP 3PL:CMPL widen mouth
 Then he wanted (them) to open (their) mouths

It is possible for the verb to have its noun phrase object and be followed by a clause introduced by *gí*. In such cases, the clause introduced by *gí* is not the complement clause of the verb (since its object position is already filled). By context, the clause marked with *gí* is understood as the reason/purpose for the situation described in the matrix, as shown below.⁴ I have bolded the matrix verb and its noun phrase object.

- (43) ne **yá** **gə** **wa** **i** **māyo**
 NEUT:1PL:EXCL want PREP thing:CONC:PL NMOD:PL of.others
 We want other people's food

- (b) **gí** ne sēm
 COMP NEUT:1PL:EXCL eat
 to eat

In summary then, in example (42), the clause introduced by *gí* is the complement of the prepositional verb *yá gə* 'want' as evidenced by the intransitive form of preposition (*gó*) and no pre-subject noun phrase corresponding with the object of the verb. In example (43), however, the preposition has its transitive form (*gə*) and is followed by a noun phrase object. As such, the clause introduced by *gí*

⁴ I gloss *gí* as COMP regardless of whether the following clause is a complement clause or an adverbial clause of reason.

cannot be the complement clause since the argument structure of the verb is already saturated. By context, the clause introduced by *gí* is understood to be the reason for the proposition expressed in the matrix clause. Semantically, the complement clause answers the question ‘what’, while the adverbial clause of reason answers the question ‘why’.

Consider also the next two examples containing the verb *dǎgā* ‘show’. In the first example, the clause introduced by *gí* is the complement of the matrix verb. It is what the speaker is going to show the addressee. I have bolded the matrix verb and the complement clause.

- (44) w-ō lū u **dǎgā** kən
 1SG-CMPL come NEUT:1SG show 2SG:M:IO
I came to show you that

- (b) **gí** **hēr** **dó** əl **k'ō** **tón** **mádǎ** **wa**
 COMP good.act DET:F NEUT:3SG:F fall ground for.nothing NEG
(your) good deed was not done for nothing
(lit. the good deed didn't fall to ground for nothing)

In this next example the clause introduced by *gí* (line (b)) cannot be the complement clause for the verb *dǎgā* since it already has an object given at the end of the first line (bolded). The clause introduced by *gí* is understood as the reason for the speaker’s request.

- (45) we **dǎgā** n **ho** **ro-gə** **me** **sə** **flar-e**
 NEUT:2PL show 1SG:IO house MOD:F-POSS sultan NMOD:M dance-PL
Show me the house of the party organizer

- (b) **gí** yá-w sō hé a lə
 COMP VOL-1SG arrive L.P. PREP PRO
so I can dwell there

In discussing reported speech in chapter 28, the verb of saying *gə* ‘say’ was regularly used before directly and indirectly reported speech, quite often followed by the marker *gí*. In the next example, there are two successive clauses introduced by *gí* following the verb *gə* ‘say’. The first is the complement clause of the matrix verb. It is indirectly reported speech. The second clause introduced by *gí* can therefore not be a complement clause. It has a distinct function. It is an adverbial clause of reason explaining why they should take him away.

(46) *ā* *gə* *dan* *gí* *i* *do* *rə* *ní*
 3SG:M:CMPL say 3PL:IO COMP NEUT:3PL take 3SG:M:IO L.P.
He_i told them to take him_k away

(b) *gí* *dan* *da* *a* *yá* *gó*
 COMP 3SG:M:IND CONTR NEUT:3SG:M want PREP
because he_k was the one that wanted (to steal the sultan’s goat)

In the above examples I have provided evidence that clauses introduced by *gí* can either function as complement clauses or as adverbial clauses of reason. Which function is expressed is determined by the argument structure of the verb and context. Other verbs that take a complement clause include: *són* ‘know’, *ḡin gə* ‘hear’, *ts’am* ‘agree, accept, admit’ (and about five other verbs with similar meanings), *jí:* ‘refuse’ (and a couple other verbs with similar meanings), *samasân* ‘be afraid’, *hōn bādī* ‘begin’. Adverbial clauses of reason can follow any clause.

It is possible to have two successive reason clauses within a sentence, as shown below. The first clause introduced by *gí* gives the reason why the addressee should climb down (from the tree that he’s

in), the second gives the reason why they should return home. The second is an instance of the comitative copula construction, illustrating that non-verbal predication can also occur within clauses introduced by *gí*.

- (47) só he **gí** m to
 enter L.P. COMP NEUT:1PL:INCL return.home
Climb down so we (can) go home

- (b) **gí** [kón só]_{CS} gó [amân]_{CC}
 COMP 2SG:M:IND DET:M with trust
because you have proven to be trustworthy

Non-verbal predication can also be followed by a clause introduced with *gí*. The corpus contains examples of a clause introduced by *gí* after: (i) the locative copula construction, (ii) the comitative copula construction, and (iii) a noun phrase, functioning as a proposition. Each of these is illustrated in turn below.

Locative copula construction followed by clause introduced by *gí*

- (48) [yagí]_{CS} nda [lə]_{CC} **gí** a fo dan wa
 who be.at:M PRO COMP NEUT:3SG:M give:APPL 3PL:IO thing:CONC:PL
Who is there that would give them food

Comitative copula construction followed by clause introduced by *gí*

- (49) [madí da]_{CS} gó [hángwó ro-gó-də]_{CC}
 death CONTR with goat MOD:F-POSS-3SG:F
Death had a goat

- (b) **gí** yá-y la yá ro-gó-dan do sārga
 COMP VOL-3PL kill mother MOD:F-POSS-3PL as sacrifice
that they were going to sacrifice on her (deceased) mother's behalf

Noun phrase, functioning as a proposition, followed by clause introduced by *gí*

- (50) nía ro-gé-də **gí** əl hən nzónā wa dāmá ...
 desire MOD:F-POSS-3SG:F COMP NEUT:3SG:F do adultery NEG ADVERS
It wasn't her wish to commit adultery, but ...

29.7 (*aro*) *sórāngí* 'before'

The marker (*aro*) *sórāngí* 'before' indicates that the situation described in the preceding clause follows temporally or logically the situation described in another clause, generally the one that follows the marker, though not necessarily so. The final *gí* may very well be the complementizer *gí* but there are no occurrences in the corpus of *sórān* by itself. The marker can conjoin clauses with different aspect/mode codings. When linking clauses which are each in the completive aspect, the sequential marker *aro* does not generally occur. For linking clauses with other aspect/mode codings, the presence or absence of the marker *aro* appears to be optional. In the next group of examples, both clauses are in completive aspect, incompletive aspect, irrealis mode, and imperative, respectively.

sórāngí between clauses in completive aspect

- (51) ā bo fā-ē míá l gokúro **sórāngí** ā mādē
 3SG:M:CMPL have year-PL hundred NMOD:F three before 3SG:M:CMPL die
He reached three hundred years of age before he died

sórāngí between clauses in incompletive aspect

- (52) ndá-y hábu **sórāngí** ndá-y so lə do kasúmū
 INCMPL-3PL sew before INCMPL-3PL wear PRO as clothes
They would sew (it together) before they would put it on for clothes

sórāngí between clauses in irrealis mode (line (c))

- (53) m-í sa kən
 IRR-3PL prepare.food:APPL 2SG:M:IO
They'll prepare (it) for you

(b) aro g-ō sē amé n-gó yó
 CONJ 2SG-CMPL drink water MOD:PL-POSS DET:PL
then when you've drunk the juice from (it)

(c) aro mó-g tágə jú só **sórāngí** mó-g yā ngâ
 CONJ IRR-2SG eat meat DET:M before IRR-2SG become whole
you'll need to eat the meat (of it) before you regain your health

sórāngí between clauses in the imperative

(54) don da la n a gay **sórāngí** la rə
 1SG:IND CONTR IMP:2SG:kill 1SG:DO PREP first before IMP:2SG:kill 3SG:M:DO
Kill me first before you kill him

The aspect/mode coding need not be the same in both clauses, as shown in the next example where the clause preceding the marker is in the completive and the following clause is in irrealis mode. In this example, the situation of taking courage necessarily precedes the resolution of the difficult situation that the addressee finds themselves in.

(55) g-ō fá gə ər̄fu aro **sórāngí**
 2SG-CMPL cover PREP heart CONJ before
If you take courage then

(b) nyi ro-ngó dó mó-l dē ní
 thing:ABSTR MOD:F-POSS:2SG:M DET:F IRR-3SG:F go L.P.
your situation will resolve itself

Though the marker (*aro*) *sórāngí* generally comes between the clauses that it links together, it need not. Consider the next example. The context of this story is that a man locks his wife into their hut before he goes to visit his friends for fear that his cannibal family will come and eat her. Note that *sórāngí* comes after the second clause. Context enables the addressee to understand that the situation of the first clause happens after the situation of the second clause which is followed by *sórāngí*.

(56) ā dā̄ gə sabá-e n-gə-n ho
 3SG:M:CMPL go PREP friend-PL MOD:PL-POSS-3SG:M L.P.
He went to (visit) some friends

(b) fən só ā kə gá-də ho sórāngí
 hut DET:M 3SG:M:CMPL close PREP-3SG:F L.P. before
He locked her in the hut beforehand

29.8 *yahe* ‘even’

The concessive marker *yahe* ‘even (when/though/if)’ conveys the idea that despite the information given in the concessive clause, the situation of the matrix clause still holds true. The concessive marker occurs at the end of the clause to which it applies. This is evidenced by the fact that there is a slight pause after the marker *yahe*. Using a comma to represent the pause, the basic structure of the concessive construction is: **CONCESSIVE.CLAUSE *yahe*, MATRIX.CLAUSE**

The next two examples are typical instances of the concessive construction. The first has the neutral aspect in the concessive clause. The second has the completive aspect.

(57) kanía əl ská yo gó mo **yahe**
 therefore NEUT:3SG:F suffer L.P. with 1PL:INCL even
Therefore, even though we’re suffering

(b) gúlo ro-gá-mo dó da m sā hé a lə
 river MOD:F-POSS-1PL:INCL DET:F CONTR NEUT:1PL:INCL inhabit L.P. PREP PRO
our river, let’s live in it

(58) ā sa-l rə gáko **yahe** a gə rə gí
 3SG:M:CMPL sit-CAUS 3SG:M:IO front even NEUT:3SG:M say 3SG:M:IO COMP
Even though he_i had brought him_k forward, he_k said to him_i,

- (b) abá sa-l n gáko yígó gí ngō ró
 father sit-CAUS 1SG:IO front only COMP place DEM:F
“Buddy, at least take me (further) forward, because

- (c) u bó gó u dǎ ní wa
 NEUT:1SG be.able PREP NEUT:1SG go L.P. NEG
I can't move on from here”

In this next example, the concessive clause is non-verbal (specifically, an instance of the juxtaposition construction).

- (59) [don]_{VCS} [gǎrəm mayo]_{VCC} **yahe** kón da
 1SG:IND woman of.another even 2SG:M:IND CONTR
Even though I'm the wife of another, you're the one

- (b) don u sán kón
 1SG:IND NEUT:1SG know 2SG:M:DO
that I know (intimately)

With the appropriate context, the concessive marker can be understood to convey the idea of a concessive condition (‘even if’). The next two examples, taken from the same text, illustrate how the concessive marker in context can convey either concession or a concessive condition. In the first example, a father is giving his daughter instructions on how to behave should a certain situation arise (concessive condition). The second example is a description of how she behaves when that situation does arise (concession). The two concessive clauses are actually identical. It is the aspect/mode coding differences in the matrix clause (imperative in the first example, neutral form in the second) which contributes to the interpretation of a concessive condition in the first example and a concession in the second.

- (60) ndá-l dā gē-i gúlo **yahe** dā ní gó dā
 INCMPL-3SG:F go mouth-NMOD:PL river even IMP:2SG:go L.P. with 3SG:F
Even if she goes to the river, go with her

- (61) ndá-l dā gē-i gúlo **yahe** əl kadó dā
 INCMPL-3SG:F go mouth-NMOD:PL river even NEUT:3SG:F follow 3SG:F:DO
Even when she_i would go to the river, she_i would follow her_k

As noted in section 10.2, the concessive marker can follow the epistemic adverb *sarakí* ‘perhaps/maybe’ to express the certainty of the speaker’s assertion. This is illustrated in the next example where it occurs clause finally, after the intensifying adverb.

- (62) ení só nda dū
 so.and.so DET:M INCMPL:3SG:M walk
So and so is sleeping

- (b) gó gārəm ro-ngó dó dāge **sarakí** **yahe**
 with woman MOD:F-POSS:2SG:M DET:F INTENS perhaps even
with your wife, that’s for certain

The concessive marker can also code a pre-subject noun phrase. This is discussed in section 26.5.

29.9 *dámá* ‘but’

The adversative *dámá* is probably a borrowing from (ultimately) Arabic, and a similar form occurs in other languages of the area including the major languages Kanuri, Hausa, and Fulfulde. Its basic function is to contrast propositions. The typical structure is: **CLAUSE1, *dámá* CLAUSE2**. As indicated by the comma (which represents a pause), it is intonationally linked to the second clause.

These first two examples illustrate the function of *dámá* contrasting two propositions. In both cases, the speaker contrasts what they have just said with the content of the following clause. The

adversative occurs at the beginning of line (b) in each case. The aspect/mode coding is different for each.

- (63) w-ō ka rə aro m-ú la rə
 1SG-CMPL find 3SG:M:DO CONJ IRR-1SG kill 3SG:M:DO
If I had found him, I would have killed him

- (b) **ɗamá** w-ō ka rə wa
 ADVERS 1SG-CMPL find 3SG:M:DO NEG
but I didn't find him

- (64) kaw-e yó u hōn do dáré
 rock-PL DET:PL NEUT:1SG do as canoe
I make canoes with the rocks

- (b) **ɗamá** u hábu gó mbāle i kənérī
 ADVERS NEUT:1SG sew with muscle:PL NMOD:PL squirrel
but I sew (them together) with squirrel guts

In this next example, the speaker doesn't finish his speech following the adversative marker. The narrator picks up with the subsequent action instead.

- (65) nyi [ro m-ú gə re]_{RC} əl ɗalá **ɗamá** ...
 thing:ABSTR MOD:F IRR-1SG say 2PL:IO NEUT:3SG:F not.exist ADVERS
"I don't have anything to say to you but ..."

- (b) ā to ā só ts'e
 3SG:M:CMPL return.home 3SG:M:CMPL enter outside
He went home and got out

- (c) a lugu n-gə-n só
 PREP gandura MOD:M-POSS-3SG:M DET:M
of his gandura (man's robe)

In the next example, A makes a comment, and then B responds, introducing his remark with the adversative marker *dámá*, thereby contrasting what he has to say with what A just said.

(66) **A:** ndá-g lū ts'e wá
 INCMPL-2SG come outside TAG
“You’re coming out, aren’t you?”

(b) **B:** a **dámá** i hálbō n-g-u só
 yes ADVERS IMP:2SG:take shoe MOD:M-POSS-1SG DET:M
“Yes, but take my shoes (and)”

(c) **B:** jí ts'e
 IMP:2SG:throw outside
throw them out (first)”

The adversative marker can also code a pre-subject noun phrase. This is discussed in section 26.6.

29.10 *waro* ‘otherwise’

The term *waro* ‘otherwise’ appears to be a combination of the negative marker *wa* followed by the sequential marker *aro*, though intonationally it occurs with the following clause. It generally conveys the idea that if a situation described in the preceding clause(s), or understood by context, is not true or not carried out, then the situation in the clause introduced by *waro* will be true or will need to be carried out. The clause introduced by *waro* is quite often (though not always) in the negative or conveys a negative notion, as seen in line (c) of this next example.

(67) [kálēw só]_{CS} ndó [táskən]_{CC}
 dog DET:M PRES weak
Dog is a weakling

- (b) don da m-ú sī tárbō n-gə-n
 1SG:IND CONTR IRR-1SG take road MOD:M-POSS-3SG:M
I'm going to have to go after him

- (c) **waro** m-á bó gó a dō wa
 otherwise IRR-3SG:M be.able PREP NEUT:3SG:M bring NEG
Otherwise, he won't be able to bring (the sheep by himself)

In some cases, *waro* functions similarly to the adversative, contrasting the propositions expressed in the clauses it links together.

- (68) ā dō ní ā fé kón
 3SG:M:CMPL go L.P. 3SG:M:CMPL call 2SG:M:DO
He went and called you,

- (b) **waro** w-ō fé kón wa
 otherwise 1SG-CMPL call 2SG:M:DO NEG
but I didn't call you

In other instances, the clause introduced by *waro* is in the interrogative, often understood as a rhetorical question, as below.

- (69) kón da u són kón
 2SG:M:IND CONTR NEUT:1SG know 2SG:M:DO
You, I know

- (b) **waro** u són rə wo
 otherwise NEUT:1SG know 3SG:M:DO POL
but do I know him? (i.e., I don't)

29.11 *lá(bā)* ‘or’

The disjunctive marker *lá(bā)* ‘or’ occurs primarily in interrogative contexts in the formation of alternative questions, and as such is discussed in more detail in section 23.1.3. However, it need not occur in interrogative contexts as shown in the next example.

- (70) *mé-g gə ts'ā to lābā nondó wa aro m-ú la tó*
 IRR-2SG say only 2SG:F or in.this.way NEG CONJ IRR-1SG kill 2SG:F:DO
You have to say (it) by yourself. Or, if not, I'll kill you

29.12 *wāla ... wāla* ‘either ... or’

The disjunctive marker *wāla ... wāla* ‘either ... or’ can occur bisyndetically as in the example below, or monosyndetically as in example (72).

- (71) *tīā má blō só ā yā hádī yô aro*
 olden.times FOC man DET:M 3SG:M:CMPL become thief already CONJ
Every time someone has already become a thief

- (b) *wāla ē la rə wāla ā só dangáya yígó wá*
 either 3PL:CMPL kill 3SG:M:DO or 3SG:M:CMPL enter prison only TAG
either they kill him or they put him in prison, eh?

- (72) *blō lāke só gó-l-ēnsə da a wālə gə-n*
 man each DET:M head-NMOD:F-foot CONTR NEUT:3SG:M hurt PREP-3SG:M
Every man, it's his knee that hurts him

- (b) *wāla bēləm*
 or back
or (his) back

29.13 *walá* ... *walá* ‘neither ... nor’

The negative disjunctive marker *walá* ... *walá* ‘neither ... nor’ is distinct from the previous disjunctive marker by tone alone. It can occur bisyndetically as in the example below, or monosyndetically as in example (74). There is no clause level negation in this first example.

- (73) [marge dó]_{VCS} [nyi ro so má]_{VCC}
 ring DET:F thing:ABSTR MOD:F NONSPEC:F FOC
The ring is nothing at all,

- (b) *walá* i dā go *walá* i só lə dó m-ú i
 neither NEUT:3PL put PREP nor NEUT:3PL put PRO CONJ IRR-1SG snatch
neither do they wear it (on their head) nor do they put it on (their feet), I'll take (it)

In this instance, the disjunctive marker is comparable in function to the adversative marker. Note the clause level negation in this case.

- (74) n-ō ɕi bārī dón k'ani n-ō ts'āga n-ō dō ní
 3SG:F:CMPL put gourd IDEO CONJ 3SG:F:CMPL get.up 3SG:F:CMPL go L.P.
She stuffed (the crushed bones) into the gourd and got up and went (on her way)

- (b) gó skwi ā fá gə-də u: *walá* ē k'we wa
 with fly 3SG:M:CMPL cover PREP-3SG:F IDEO neither 3PL:CMPL be.dry NEG
with flies all around her, but (the bones) weren't dry.

29.14 *asa* ‘if’

The marker *asa* ‘if’ only occurs twice in the corpus. From elicited material, its primary function appears to be to introduce the protasis of a conditional construction. I have described above more frequently occurring means of coding the protasis and apodosis of conditional constructions.

(75) lé n-g-u yó asa skəm ndá-l la dán dó
 child:PL MOD:PL-POSS-1SG DET:PL if hunger INCMPL-3SG:F hit 3PL:DO CONJ
If my children are hungry

(b) tó da ndá-g sē ēni n-g-u só
 2SG:F:IND CONTR INCMPL-2SG drink milk MOD:M-POSS-1SG DET:M
(it's because) you're drinking my milk

(c) aro lé n-g-u ndá-y hyû
 CONJ child:PL MOD:PL-POSS-1SG INCMPL-3PL be.skinny
and my children are getting skinny

29.15 *séy* 'except, only if, until'

The marker *séy* 'except, only if, until' is a borrowing, likely from either Kanuri or Hausa. It can be used to introduce the protasis of a conditional construction when the condition expressed in the clause marked with *séy* is presented as the unique requirement for the fulfillment of the condition, as shown below. The fulfillment of the condition is generally presented as a future event. In this example, the apodosis is understood from context.

(76) k'ani əl gə ri gí séy mó-g yá gə
 CONJ NEUT:3SG:F say 3SG:M:IO COMP except IRR-2SG want PREP
Then she said to him, "(You'll recover from your illness) only if you get

(b) séló sə fáskē dúbú aro m-í la
 bird NMOD:M feather thousand CONJ IRR-3PL kill
a bird with a thousand feathers and they sacrifice (him)"

It can also be used like a preposition, occurring with a following noun phrase.

(77) damá só ro gí ā man m yó wa
 ADVERS day MOD:F COMP 3SG:M:CMPL leave PREP:2SG:F L.P. NEG
But if he doesn't let you go

- (b) aro **séy** só 1 kiama
 CONJ except day NMOD:F judgment
then (it won't be) until the day of judgment
- (c) aro sárāngí mo yó ín ka maráǵə
 CONJ before 1PL:INCL:IND DET:PL IRR:1P:INCL find RECIP
before we meet (again)

This next example combines *séy* ‘except’ with the bisyndectic disjunctive marker *wāla ... wāla* ‘either ... or’ described above.

- (78) amsó n-gó wadí nda lə k'o
 word MOD:M-POSS:2SG:M what be.at:M PRO still
What do you still have to say?
- (b) **séy** wāla ē ɓa kón he wāla ē la kón
 except either 3PL:CMPL tie 2SG:M:DO L.P. or 3PL:CMPL kill 2SG:M:DO
(All that will happen is) either they'll tie you up or they'll kill you

The marker *séy* is often used as part of leave takings (e.g. *séy jimé* (except little) ‘See you later!’).

29.16 *ilé* ‘except, only, only if, only until, unless’

The marker *ilé* ‘only, only if, only until, unless’ is probably borrowed from Kanuri or Arabic.

Its function is similar to *séy*, described directly above. Like *séy*, the situation described in the clause marked with *ilé* is presented as unique. Unlike *séy*, *ilé* can be used to introduce both temporal and conditional protases, and the fulfillment of the situation described in the clause introduced by *ilé* need not be in a future time frame, as shown in this next example.

- (79) ā só lə k'ani n-ō hó lə ga yó dó
 3SG:M:CMPL enter PRO CONJ 3SG:F-CMPL put PRO mouth DET:PL CONJ
He entered it (i.e., the room) then she closed it (i.e., the door)

- (b) **ilé** dǎ-n he n-gə-n kál
 except sleep-INF L.P. MOD:M-POSS-3SG:M exactly
Only once he had fallen asleep
- (c) k'ani n-ō kə gə-n ho gə ts'e
 CONJ 3SG:F-CMPL close PREP-3SG:M L.P. PREP outside
did she lock him in from the outside

The fulfillment of the condition is presented as a future event in this next example (cf. line (d)).

The apodosis is understood by context. Note the irrealis mode used in that clause. This can be compared with the conditional construction in line (e) where the completive is used in the protasis and the irrealis in the apodosis.

- (80) wre dē hádē n nde tón
 2PL:IND S.R. house:PL MOD:PL-POSS-2PL be.at:PL ground
As for you, your houses are (built) on the ground
- (b) don dē hó ro-g-u ndwa tón dó
 1SG:IND S.R. house MOD:F-POSS-1SG be.at:F ground CONJ
Me, that my house would (also) be built on the ground
- (c) əl bó gə si wa
 NEUT:3SG:F be.able PREP REFL NEG
is not acceptable
- (d) **ilé** mǎ-we gá n dabú ro-gə sámē gó tón
 except IRR-2PL build 1SG:IO middle MOD:F-POSS sky with ground
Only if you'll build (it) for me between heaven and earth (will I accept)
- (e) sá [ro wē gá n lə]_{RC} wa aro m-ú ts'am wa
 day MOD:F 2PL:CMPL build 1SG:IO PRO NEG CONJ IRR-1SG agree NEG
If you don't built (it) for me there, I won't accept (it)

29.17 *kanía* ‘therefore’

The marker *kanía* ‘therefore’ introduces a consequence clause. Interestingly, the majority of the times it is used, the consequence clause is in the imperative mode. I make note of this in section 24.8.1. In the following example, the consequence clause is in the irrealis mode, though by context, the consequence is understood as a command. In the first two lines the speaker lays out the situation at hand – he’s dying. Then he uses the consequence marker *kanía* (at the start of line (c)) to indicate what should happen as a result. The command is given in the last clause of line (d) using the irrealis mode form.

(81) don só u ndə do ts'āle n-g-u
 1SG:IND DET:M NEUT:1SG see as strength MOD:M-POSS-1SG
I see that my strength

(b) ā gē
 3SG:M:CMPL be.finished
is finished (i.e., I'm dying)

(c) **kanía** wási [n ndá-w fo to]_{RC} só
 therefore advice MOD:M INCMPL-1SG give:APPL 2SG:F:IO DET:M
Therefore, the advice that I'm about to give you,

(d) wi-sə m ā lū aro mǎ-g gə rə
 husband-LINK MOD:M:POSS:2SG:F 3SG:M:CMPL come CONJ IRR-2SG say 3SG:M:IO
when your husband comes (home), you'll tell him (it)

There are, however, some instances in the corpus where the consequence, introduced by *kanía*, is neither in the imperative, nor understood contextually as a command. The following example provides

illustration. The first line lays out the situation – the sultan’s special goat has been stolen. Line (b)

begins with the consequence marker *kanía*.

- (82) hángwó n-gə me ē sī héy-sən
 goat MOD:M-POSS sultan 3PL:CMPL take thief-NOM
Someone has stolen the sultan’s goat

- (b) **kanía** blō [n ā ka lə]_{RC} aro
 therefore man MOD:M 3SG:M:CMPL find PRO CONJ
Therefore, the man that finds it

- (c) ɕi [ro ā dō]_{RC} dó
 thing:CONC MOD:F 3SG:M:CMPL bring DET:F
the thing (i.e., container) that he brings

- (d) m-í gá rə lə nəmân
 IRR-3PL put 3SG:M:IO PRO money
they’ll fill it with money for him

The consequence marker *kanía* is also used in a different context to convey the idea of ‘and so forth, et cetera’ when giving a list of items. It occurs between the different items of the list, as shown below.

- (83) wa yó don da nde g-u a nk’əm fogó
 thing:CONC:PL DET:PL 1SG:IND CONTR be.at:PL PREP-1SG PREP handful all
All the things are within my reach (figuratively)

- (b) [fá-e **kanía** hángwé **kanía**]_{CS} nde [lə]_{CC} fogó
 cow-PL therefore goat:PL therefore be.at:PL PRO all
Cows, goats, and so forth are all there (within my grasp)

29.18 *təmo* ‘then’

The consequence marker *təmo* ‘then’ occurs clause finally and (almost) always follows a clause in imperative mode. I address this consequence marker in section 24.8.2.

29.19 Summary

In this chapter I have presented the ways in which clauses are combined in Makary Kotoko. Following Frajzyngier (1996) I describe a basic three way distinction: (i) asyndetic parataxis, (ii) sequential marking, and (iii) subordination. Asyndetic parataxis does not indicate the relationship that exists between the clauses thus conjoined. As such, context is used to determine what relationship should be understood. Within the domain of sequential marking, I noted two sequential markers, *k’ani* and *aro*, and one non-sequential marker, *dó*. The marker *k’ani* contrasted with *aro* in that *k’ani* was (primarily) used to sequentially link specific events in past time. The marker *aro* could also be used in a past time frame but for habitual or generic events. It was also used to link events in other time frames, and to introduce the apodosis in conditional constructions. It was shown that the complementizer *gí* could introduce either a complement clause or an adverbial clause of reason. The argument structure of the matrix verb and context were important in determining which function was in use. I also presented a number of other subordinating markers which are in use in Makary Kotoko.

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Appendix A: Interlinearized texts

Introduction

The interlinearized texts in this appendix were recorded in 2000. I had considerable help in transcribing these (and all the other) texts from my language consultants at the time. I have since gone over the texts myself, completely retranscribing them for this appendix. For each text, I provide four lines of interlinearization.

(i) The first line is a phonetic transcription of the text. However this differs from the way phonetic transcriptions were given in the body of the dissertation. I only note ‘relative’ H (marked with an acute accent) and ‘relative’ L tone (unmarked). In natural discourse M tone is generally heard as H relative to L, and L relative to H. I only identified the presence of the M tone in the language when, in the controlled environment of elicitation sessions, I was told (repeatedly) that I was saying ‘it’ wrong. What ‘it’ turned out to be (in this case) was a tonal distinction that I hadn’t been hearing. The presence of the M tone within the lexicon was discovered by placing words from different word classes into particular tonal frames. Words that behaved in identical ways tonally were then grouped together. The presence of the M tone within the grammar of the language was primarily discovered in distinguishing the segmentally homophonous forms of the completive aspect paradigm and the neutral aspect paradigm (e.g. *ā* (3SG:M:CMPL), *a* (NEUT:3SG:M)). A lengthened sound is noted with a colon (:) in this line.

Whenever a speaker pauses in their speech, I start a new numbered line ((1), (2), etc.). That is, each stream of speech sounds between two pauses is given its own numbered line. There are several reasons for a speaker to pause in their speech. They may need to breathe. They may have been interrupted by a passing motorcycle, a crying baby, or an over eager rooster. They may need time to frame the next part of their narrative. They may have made an error and want to correct it. False starts are placed in parentheses and are not included in the second line of interlinearization. Likewise, inaudible speech is noted with an X, placed in parentheses, and is not included in the second line.

A careful examination of the texts will reveal that almost all pauses in speech occur either before or after the subject marker and verb phrase. That is, pauses may occur after clause initial sequential markers, after pre-subject noun phrases, after temporal adverbs or prepositional phrases preceding the subject marker, after the verb phrase, after clause final conjunctions, etc.

(ii) The second line gives the underlying forms, breaking down the stream of speech sounds into morphemes and words. M tone is noted here (using a macron) as determined by the manner described above. The palatal approximant is written [j] in the first line of linearization and is written ‘y’ in the second. Likewise, the palatal nasal is written [ɲ] in the first line and ‘ny’ in the second since I have analysed this as a sequence in section 2.1. As I did in the body of the dissertation, I write the underlying form of words even if that form is never actually realized in that environment. So for instance the term *gārəm* ‘woman’ is always realized [gār] before the

feminine modifying marker *ro* (MOD:F), which itself is always realized [no] in this environment.

Nonetheless I write the proposed underlying forms of both consistently in this line. The few times when French words are used, they are given in the French orthography in the second line and placed in single quotes (''). When a break between morphemes within a word is clear I note it with a hyphen (-). If the morphemic breakdown of the stream of speech sounds from the first line is somewhat long (as some of them are), I then letter (i.e., (b), (c), etc.) each additional line for that stream of speech (with the original numbered line being '(a)' though not marked as such).

(iii) The third line provides the morpheme by morpheme gloss, describing grammatical items using the abbreviations provided in the Abbreviations list. I generally follow the Leipzig

Glossing Rules (online version, last accessed Jan 15, 2012:

<http://www.eva.mpg.de/lingua/resources/glossing-rules.php>), with one exception. Glosses for lexical items which require more than one word are written with periods between the words (e.g. the gloss for *tīā* is written: olden.times). However, the colon (:) (and not the period as suggesting by the Leipzig Glossing Rules) is used to distinguish different morphemes of a grammatical item that are not segmentable. The hyphen (-) is used when a hyphen has been used in the second line between segmentable morphemes.

(iv) The fourth line provides a relatively free translation of the text. I occasionally provide a more literal translation in parentheses.

Interlinearized text A: The value of field work

Speaker: Alhaji Mahamat Miskei

Gender: Male

Date of recording: February 18, 2000

Age at time of recording: 75

Birthplace: Maladi

Village: Makary (Galme neighborhood)

Languages spoken: Makary Kotoko, Kanuri, Chadian Arabic

(1) blɔŋənendaləgíabanáŋgənesálanəlabárgí

blō n-gə-ne nda lə gí
man MOD:M-POSS-1PL:EXCL be.at:M PRO COMP*There was a man of ours,*(b) abáná n-gə-ne só ā la ne labâr gí
uncle MOD:M-POSS-1PL:EXCL DET:M 3SG:M:CMPL cut 1PL:EXCL:IO word COMP*our uncle gave us the (following) advice*

(2) mbəldómorokabókódó

mbu l dōmo ro kabókó dó
handle NMOD:F hoe MOD:F short DET:F*“The short handle of the hoe*(3) gok^logádəŋgámdarog-ō k^lō gə-də ngámdə aro
2SG-CMPL hold PREP-3SG:F hard CONJ*if you hold on to it firmly*

(4) málhəŋkəŋdugumi

má-l hən kən dūgumi
IRR-3SG:F do 2SG:M:DO long*it'll make you long (i.e., it will serve you well)*

(5) gokádókæskéaro

g-ō ká dǎ kæskê aro
 2SG-CMPL support 3SG:F:DO easy CONJ

If you take it lightly(6) mál(ha)həŋkəŋ(ga)kabákó:gádəgádək¹o

má-l hən kən kabákó gə gādə gá-də k¹o
 IRR-3SG:F do 2SG:M:DO short NEUT:2SG lack PREP-3SG:F still

it'll make you short, even shorter than it is"

(7) msinəmáj

msī nəmân
 man.of money

A wealthy man

(8) aǰígəgərnogəŋ

ā ǰí gə gərəm ro-gə-n
 3SG:M:CMPL refuse PREP woman MOD:F-POSS-3SG:M

divorced his wife

(9) animsigere

k¹ani msī gēre
 CONJ man.of farming

Then a farmer

(10) ʔehaǰíg:ərnogəŋ

dé ā ǰí gə gərəm ro-gə-n
 S.R. 3SG:M:CMPL refuse PREP woman MOD:F-POSS-3SG:M

divorced his wife as well(11) k¹aniehəŋbaltómsinəmájso

k¹ani ē hən baltó msī nəmân só
 CONJ 3PL:CMPL do change man.of money DET:M

Then they changed (wives). The wealthy man

(12) e(hasilórogəm)asigərnogəmsigeresó

de ā sī gərəm ro-gə

S.R. 3SG:M:CMPL take woman MOD:F-POSS

married the wife

(b) msī gēre só

man.of money DET:M

of the farmer

(13) msigereḁe

msī gēre de

man.of farming S.R.

and the farmer

(14) asigərnogəmsinəmāṅsó

ā sī gərəm ro-gə msī nəmān só

3SG:M:CMPL take woman MOD:F-POSS man.of money DET:M

married the wife of the wealthy man

(15) ʔaniduníakájo

k'ani dunía a ká yo

CONJ world NEUT:3SG:M suffer L.P.

Then the world became a difficult place to live

(16) duníakájódó

dunía a ká yo dó

world NEUT:3SG:M suffer L.P. CONJ

The world was such a difficult place to live in that

(17) worondelədówahíejḁaláalə

wo ro nde lə dó

village MOD:F be.at:PL PRO DET:F

the village where they were

(b) wahíe i ḁalá a lə

grain NEUT:3PL not.exist PREP PRO

there was no more grain there

- (18) k'anidegəkémíngənsó
 k'ani nde gə kéymí n-gə-n só
 CONJ be.at:PL PREP rival MOD:M-POSS-3SG:M DET:M
(the grain) was with his (i.e., the wealthy man's) rival (i.e., the farmer)
- (19) k'anigərnogəndóde(ndokémíngádə)ndokémírgádə
 k'ani gərəm ro-gə-n dó de
 CONJ woman MOD:F-POSS-3SG:M DET:F S.R.
and his wife (i.e., the wealthy man's wife),
- (b) ndó kéymí r-gə-də
 PRES rival MOD:F-POSS-3SG:F
was her (the farmer's wife's) rival as well
- (20) k'anítíaro:sarílegówajdáládó:ndídosérómarágə
 k'ani tíā ro saríl-e gó wa
 CONJ olden.times MOD:F bed-PL with thing:CONC:PL
In olden times
- (b) i dālá dó ndá-y do séró marágə
 NEUT:3PL not.exist CONJ INCMPL-3PL gather sand RECIPIENT
there were no beds. They would gather sand together
- (21) andíhəndoskagəaro
 aro ndá-y hən do skāgə aro
 CONJ INCMPL-3PL do as step CONJ
and make it into a step and
- (22) megəndídalgódódosaríl
 mēgə ndá-y da lə gó dó do saríl
 people INCMPL-3PL lie.down PRO head DET:F as bed
people would sleep on it like a bed
- (23) (go)jágəsófənsókálʔendíʃáwŋgorosodowələm
 yá-g só fən só kál de
 VOL-2SG enter hut DET:M just S.R.
If you wanted to go into a hut

- (b) ndá-y fêw ngō ro so do wāləm
 INCMPL-3PL dig place MOD:F NONSPEC:F as hole
they would have dug out a place into a hole

- (24) aləarogíndífédombəlfəŋ
 a lə aro gí ndá-y fé do mbá-l-fən
 PREP PRO CONJ COMP INCMPL-3PL call as forehead-NMOD:F-hut
at it and they would call it a doorstep

- (25) aro(ndí:)gərəməndáldítʃ'íwa:lə
 aro gərəm ndá-l díʃ'i wa a lə
 CONJ woman INCMPL-3SG:F pound thing:CONC:PL PREP PRO
and a woman would pound grain there

- (26) ʔanimsinəməŋsógərnogəŋdónots'aganodəgə:
 k'ani msī nəmân só gərəm ro-gə-n dó
 CONJ man.of money DET:M woman MOD:F-POSS-3SG:M DET:F
Well, the wealthy man, his wife,

- (b) n-ō ts'āga n-ō dē gə ...
 3SG:F-CMPL stand.up 3SG:F-CMPL go PREP
got up and went to

- (27) msiwahíejôgáldəwogənk'ani
 msī wahíe yó ho
 man.of grain DET:PL L.P.
the farmer's

- (b) gí əl dəwo gə-n k'ani
 COMP NEUT:3SG:F buy PREP-3SG:M CONJ
in order to buy (grain) from him then

- (28) gərəməndónofɪŋgədək'annots'agaldíʃ'iɛŋgədəjó
 gərəm dó n-ō ʃɪn gə-də k'ani n-ō ts'āga
 woman DET:F 3SG:F-CMPL hear PREP-3SG:F CONJ 3SG:F-CMPL stand.up
his (i.e., the farmer's) wife heard her coming and she got up

- (b) əl díŋ'i en-gó-də yó
 NEUT:3SG:F pound 3PL-PREP-3SG:F DET:PL
to pound some of her grain
- (29) wahíendéŋó
 wahíe nde ń wo
 grain be.at:PL PREP:2PL POL
“Do you have any grain?”; (asked the wealthy man’s wife)
- (30) (áŋ)a:wahíendegónedəge
 a wahíe nde gó-ne dəge
 yes grain be.at:PL PREP-1PL:EXCL INTENS
“Yes, we have lots of grain
- (31) arodondewahíeŋgundê:jó
 aro don də wahíe n-g-u ndéwe yó
 CONJ 1SG:IND S.R. grain MOD:PL-POSS-1SG DEM:PL DET:PL
As for me, my grain there
- (32) ndúwoŋsəriómbliŋgólíjágógímál(k'ogódəl:mál:k'ogəmá)gədəgúfodədəjsólk'odəgô
 ndáwe w-ō ʃí sərió mblín
 DEM:F 1SG-CMPL pour mortar new
I've just put it into the mortar” (She did this because)
- (b) gí əl yá gó gí mǎ-l gə gí
 COMP NEUT:3SG:F want PREP COMP IRR-3SG:F say COMP
she_f (i.e., the farmer’s wife) wanted her_w (the wealthy man’s wife) to say
- (c) əl fo də dəy só
 NEUT:3SG:F give:APPL 3SG:F:IO pestle DET:M
that she_f should give her_w the pestle
- (d) gí əl k'ō də gó
 COMP NEUT:3SG:F hold 3SG:F:IO PREP
so that she_w could hold it for her_f (while she_f got the grain for her_w)

(33) k'anofěsíénodəni

k'ani n-ō fě si he n-ō dē ní
 CONJ 3SG:F-CMPL change REFL L.P. 3SG:F-CMPL go L.P.
then she_w turned around and went away

(34) k'an(oʔ:)nodəninondók'anotê:nolu

k'ani n-ō dē ní nondó k'ani
 CONJ 3SG:F-CMPL go L.P. in.this.way CONJ
She_w went away for a time then

(b) n-ō te hé n-ō lū

3SG:F-CMPL return L.P. 3SG:F-CMPL come
she_w returned (to the farmer's home)

(35) eləʃiŋəhárakəgdək'ani

də n-ō ʃin gə hárakā r-gə-də k'ani
 S.R. 3SG:F-CMPL hear PREP noise MOD:F-POSS-3SG:F CONJ
she_f heard the sound of her_w coming and

(36) nosidějsóbələmk'o

n-ō sī dēy só bələm k'o
 3SG:F-CMPL take pestle DET:M again still
she_f took hold of the pestle yet again

(37) góməlgədəgā:dodějsók'otogaŋgálhəŋwahiejo

gí mál-gə də də gí áʔa
 COMP IRR-3SG:F say 3SG:F:IO COMP no
so that she_w would (have to) say, “No,

(b) dō dēy só gí u k'ō to gó
 IMP:2SG:bring pestle DET:M COMP NEUT:1SG hold 2SG:F:IO PREP
bring the pestle (to me_w) so I_w can hold it for you_f

(c) aro ngál n wahie yó ho
 CONJ IMP:2SG:measure 1SG:IO grain DET:PL L.P.
then (you_f can) measure out the grain for me_w”

- (38) k¹andáðe:əlsəngódək¹anodʒi
 k¹ani də də əl sən gó də
 CONJ 3SG:F:IND S.R. NEUT:3SG:F know with 3SG:F
But she_w knew what she_f was up to
- (b) k¹ani n-ō dʒi
 CONJ 3SG:F-CMPL refuse
so she_w refused
- (39) an(enégə:no)nódáɡəblosô:
 k¹ani n-ō dā gə blō só ho
 CONJ 3SG:F-CMPL go PREP man DET:M L.P.
Then she_w went to her_w husband
- (40) kəŋts¹agamdənó(gədəŋgógədá)ŋdomowahíejowa
 kən¹ gə ts¹āga gə dā ní
 2SG:M:IND NEUT:2SG stand.up NEUT:2SG go L.P.
“You’re going to go
- (b) gə dō mo wahíe yó wá
 NEUT:2SG bring 1PL:INCL:IO grain DET:PL TAG
get us some grain, aren’t you?”
- (41) ha?
 ha
 INTERJ
“Ha!”
- (42) wahíejá?àdɔŋhodómúdələk¹owatówajámdwógónəmáŋomowâ
 wahíe yó á?a don ho dó
 grain DET:PL no 1SG:IND house DET:F
The grain, no! Me, the house (of the farmer)
- (b) m-ú dā lə k¹o wa
 IRR-1SG go PRO still NEG
I’m not going there again”

¹ The speaker said *kən* (2SG:M:IND) when he should have used *tó* (2SG:F:IND).

(c) tó wa yó yá-m dǎwo
 2SG:F:IND thing:CONC:PL DET:PL VOL-1PL:INCL buy
“The grain, we need to buy (it)”

(d) gó nəmân ro-gǎ-mo wá
 with money MOD:F-POSS-1PL:INCL TAG
with our money, eh?

(43) ifomomádǎwo
 i fo mo máǎ wo
 NEUT:3PL give:APPL 1PL:INCL:IO for.nothing POL
Will they give (it) to us for free?”

(44) egǎá:donho(do)dómúdǎlǎk'oa
 ǎ ǎl gǎ áʔa don ho dǎ
 S.R. NEUT:3SG:F say no 1SG:IND house DET:F
But she said, “No, me, the house (of the farmer)”

(b) m-ú dǎ lǎ k'o wa
 IRR-1SG go PRO still NEG
I'm not going back there again”

(45) dǎnda:lu
 ǎn ǎ ǎ lū
 3SG:M:IND CONTR 3SG:M:CMPL come
The he was the one that came

(46) gólugurogǎ
 gó lugu ro-gǎ-n
 with gandura MOD:F-POSS-3SG:M
with his gandura

(47) salámalekûm
 salám alekûm
 Arabic greeting
“Peace be upon you”

- (48) alekúmasalâm
 alekúm a salâm
 Arabic reply
 “*And upon you*”
- (49) enía?â
 ení wo a
 so.and.so POL yes
 “*Is that so and so?*” “*Yes*”
- (50) wahiéndeləwoándełə
 wahíe nde lə wo a nde lə
 grain be.at:PL PRO POL yes be.at:PL PRO
 “*Do you have grain?*” “*Yes, we have (grain)*”
- (51) k^lanagəgərnogəŋ::rodaŋaɖʒígádádógí
 k^lani ā gə gə̀rəm ro-gə-n
 CONJ 3SG:M:CMPL say woman MOD:F-POSS-3SG:M
 “*Then he_f (i.e., the farmer) said to his_f wife*”
- (b) ro dan ā ɖʒí gə́-də dó gí
 MOD:F 3SG:M:IND 3SG:M:CMPL refuse PREP-3SG:F DET:F COMP
 “*that he_w (i.e., the wealthy man) had divorced,*”
- (52) dədəjmsótəŋats^lagaforə:wahíéjó
 dē dēy m só tən aro
 IMP:2SG:put pestle MOD:M:POSS:2SG:F DET:M ground CONJ
 “*Put down your pestle then go*”
- (b) ts^lāga fo rə wahíe yó
 IMP:2SG:stand.up IMP: 2SG:give:APPL 3SG:M:IO grain DET:PL
 “*give him_w some grain*”
- (53) mejtíaebojankéa
 mēy tíā ē bo yanké wa
 people.of:PL olden.times 3PL:CMPL have pants NEG
 “*People in olden times didn’t wear pants*”

- (54) k^lani
 k^lani
 CONJ
then
- (55) (mejtíaebojankéa)ndólugu(da:ts^lalugul)ts^lagəlugulalîŋ
 ndó lugu ts^lāgə lugu l alín
 PRES gandura only gandura NMOD:F color
(They wore) just the gandura, the colored gandura
- (56) ʔaniagədəgí
 k^lani ā gə də gí
 CONJ 3SG:M:CMPL say 3SG:F:IO COMP
Then he_f said to her,
- (57) dədəjmsótəŋk^lanodədəjsótəŋagəforəwahíéjónəŋgál:əwahíejô
 dē dəy m só tən k^lani
 IMP:2SG:put pestle MOD:M:POSS:2SG:F DET:M ground CONJ
“Put down your pestle”
- (b) n-ō dē dəy só tən k^lani
 3SG:F-CMPL put pestle DET:M ground CONJ
She put the pestle down and
- (c) ā gə gí fo rə wahíe yó
 3SG:M:CMPL say COMP IMP:2SG:give:APPL 3SG:M:IO grain DET:PL
he_f said to give him_w the grain
- (d) k^lani n-ō ngál rə wahíe yó ho
 CONJ 3SG:F-CMPL measure 3SG:M:IO grain DET:PL L.P.
then she measured out the grain
- (58) áʔáhərlgódópálk^lo
 áʔa hé rə lə gó dó pál k^lo
 no IMP:2SG:put 3SG:M:IO PRO head DET:F one still
“No, add another one to it”

(59) arálhárlgódó

aro əl há rə lə gó dó
 CONJ NEUT:3SG:F put 3SG:M:IO PRO head DET:F
so she added to it

(60) k'alugudáasóts'eambálal:ugudófogá

k'ani lugu dó ā só ts'e
 CONJ gandura DET:F 3SG:M:CMPL enter outside
Then the gandura, he_w pulled

(b) a mbálā l lugu dó fogá

PREP arm NMOD:F gandura DET:F all
his_w arm out of one of the sleeves (and thereby)

(61) aná?dāmdúgúsuts'e

ā dā ní ā dā mdúgúsū ts'e
 3SG:M:CMPL go L.P. 3SG:M:CMPL put buttock outside
exposed a buttock

(62) k'ani(jáldənik'ani)

k'ani
 CONJ
then

(63) (ag?gəgíjaldə:))jágadənik'anagədəgəblomsógondəwowohərdəmdúgúsuts'e(re)dó

yá-g-a dā ní k'ani a gə də gí
 VOL-LINK-3SG:M go L.P. CONJ NEUT:3SG:M say 3SG:F:IO COMP
as he_w was going, he_f said to her,

(b) blō m só g-ō ndə wo

man MOD:M:POSS:2SG:F DET:M 2SG-CMPL see POL
“Your (former) husband, did you see?”

(c) w-ō há rə mdúgúsū ts'e dó

1SG-CMPL put 3SG:M:IO buttock outside CONJ
I_f made him_w expose his_w buttock”

Interlinearized text B: Squirrel

Speaker: Guskro

Gender: Male

Date of recording: March 25, 2000

Age at time of recording: 30

Birthplace: Dəgəmsilio, Cameroon

Village: Dəgəmsilio

Languages spoken: Makary Kotoko

(1) kútáméko

kútámé ko

? ?

Once upon a time

(2) kánúsəŋwájé

kánú sə ngwájé

champion NMOD:M wrestling

(when) a wrestling champion

(3) adəŋgbájéaro

ā də ngwájé aro

3SG:M:CMPL go wrestling CONJ

would go wrestling

(4) ndandémegəʔê

nda n-dé mēgə he

INCMPL:3SG:M PL-throw people L.P.

*he would (always) throw people down**(i.e., he would win)*

(5) sárógádəŋgbájéandadələ

sə ro gí ā də ngwájé

day MOD:F COMP 3SG:M:CMPL go wrestling

When he went (somewhere for) a wrestling match

(b) aro nda dā lə
 CONJ INCMPL:3SG:M sleep PRO
he would sleep there

(6) a(gə)gərnogəŋdówógómnárungódəndələ
 aro gərəm ro-gə-n dó
 CONJ woman MOD:F-POSS-3SG:M DET:F
His wife

(b) gó gómnárū n-gə-də nda lə
 with boyfriend MOD:M-POSS-3SG:F be.at:M PRO
had a lover

(7) sórógədəŋadələgómnárúséaladahodó
 só ro gí dan ā dā lə aro
 day MOD:F COMP 3SG:M:IND 3SG:M:CMPL sleep PRO CONJ
When he (i.e., the wrestler) would sleep there (at the site of the wrestling match)

(b) gómnárū só də a lū
 boyfriend DET:M S.R. NEUT:3SG:M come
the lover would come

(c) a dā ho dó
 NEUT:3SG:M sleep house DET:F
and sleep at the house

(8) gákodójâdəŋgbáfé
 gáko dó yá-g-a dē ngwáfé
 front DET:F VOL-LINK-3SG:M go wrestling
Then (one time) he was getting ready for a wrestling match

(9) analabaasám
 k'ani ā lāba asám
 CONJ 3SG:M:CMPL crush poison
then he crushed up some poison

(10) anabagəŋgo

k'ani ā ba gə ngō
 CONJ 3SG:M:CMPL attach PREP place

and he tied it to a place

(11) agəgərnogəŋdógəsíeŋgundejó

ā gə gərəm ro-gə-n dó
 3SG:M:CMPL say woman MOD:F-POSS-3SG:M DET:F

then he said to his wife,

(b) gí sí-e n-g-u nde yó

COMP tree-PL MOD:PL-POSS-1SG DEM:PL DET:PL

“These potions of mine

(12) doŋndáwdəníkanía

don ndá-w dō ní kanía
 1SG:IND INCMPL-1SG go L.P. therefore

I'm going (to the wrestling match) therefore

(13) têtá?owa

tá-we tá ho wa
 PROH-2PL touch L.P. NEG

don't touch (them)

(14) gódéndandósíeŋndáwŋdédomegə?ê

gí dén da
 COMP 3PL:IND CONTR

because, them

(b) ndó sí-e n ndá-w n-dé do mēgə hê

PRES tree-PL MOD:PL INCMPL-1SG PL-throw MMR people L.P.

they are the potions by which I (always) throw people down.”

(15) gákorá:dənî

gáko dó ā dō ní
 front DET:F 3SG:M:CMPL go L.P.

Then he left

(16) afadegagómnárusâ:lu

k'ani fade k'ani gómnárū só ā lū
 CONJ night CONJ boyfriend DET:M 3SG:M:CMPL come

Night came then the lover came

(17) nots'anoharəamefû

n-ō ts'āga n-ō ha rə amefû
 3SG:F-CMPL stand.up 3SG:F-CMPL do:APPL 3SG:M:IO gruel

She got up and made him some gruel

(18) ʔanogərəgí

k'ani n-ō gə rə gí
 CONJ 3SG:F-CMPL say 3SG:M:IO COMP

Then she said to him,

(19) mehégí

mē hé gí
 IMP:2SG:remain L.P. COMP

“Wait

(20) síeṅgəwisiṅgusóndandédomegəhéjó

sí-e n-gə wi-sə n-g-u só
 tree-PL MOD:PL-POSS husband-LINK MOD:M-POSS-1SG DET:M

The potions by which my husband

(b) nda n-dé do mēgə hé yó

INCMPL:3SG:M PL-throw MMR people L.P. DET:PL

throws people down

(21) múgákəṅgəamefúeamúse

m-ú gá kən gə amefû he aro mó-g sē
 IRR-1SG pour 2SG:M:IO PREP gruel L.P. CONJ IRR-2SG drink

I'll prepare some in your gruel then you'll drink (it)

(22) ada:məṅndémegəʔê

aro damá mó-g n-dé mēgə hé
 CONJ ADVERS IRR-2SG PL-throw people L.P.

then you'll (always) throw people down”

(23) asámsónogárəgəe

asám só n-ō gá rə gó he
 poison DET:M 3SG:F-CMPL pour 3SG:M:IO PREP L.P.
The poison, she prepared (the gruel) with (it)

(24) ʔanase

k'ani ā sē
 CONJ 3SG:M:CMPL drink
Then he drank (it)

(25) afadek'anigómnárúsâ:mədə

k'ani fade k'ani gómnárū só ā mādē
 CONJ night CONJ boyfriend DET:M 3SG:M:CMPL die
In the night the lover died

(26) anonóla(h)yargəŋho

k'ani n-ō dē ní n-ō la yá r-gə-dan ho
 CONJ 3SG:F-CMPL go L.P. 3SG:F-CMPL cut mother MOD:F-POSS-3PL L.P.
then she went and woke up her mother,

(27) ijats'agaálugəsóbunogásigúho

iya ts'āga álu gí
 mom IMP:2SG:stand.up IMP:2SG:come COMP
“Mom get up and come because

(b) sóbu n-ō gá si g-ú ho
 curse 3SG:F-CMPL pour REFL PREP-1SG L.P.
something bad has happened to me”

(28) aluk'anindígámsək'úmk'úmk'úmk'ani

ē lū k'ani ndá-y g-amsé k'úm k'úm k'úm k'ani
 3PL:CMPL come CONJ INCMPL-3PL say-word IDEO IDEO IDEO CONJ
They came and were talking very quietly

(29) blɔ̃siaʃiŋgədâŋ

blō n si ā ʃiŋ gó-dan
 man MOD:M NONSPEC:M 3SG:M:CMPL hear PREP-3PL

Someone heard them

(30) anats'arəgáŋho

k'ani ā ts'āga ā lū gó-dan ho
 CONJ 3SG:M:CMPL stand.up 3SG:M:CMPL come PREP-3PL L.P.

Then he came to them

(31) bloséndókənéri

blō só ndó kənéri
 man DET:M PRES squirrel

It was a squirrel

(32) agədaŋgínáwélaálgwa

a gə dan gí ná wē la álgə wá
 NEUT:3SG:M say 3PL:IO COMP now 2PL:CMPL kill person TAG

He said to them, "Now, you've killed someone, have you?"

(33) fánegəʃírí

fá ne gə ʃírí
 IMP:2SG:cover 1PL:EXCL:IO PREP secret

"Cover (it) up for us"

(34) (afán:)fáregəʃíríawefoŋnəmâŋ

u fá re gə ʃírí
 NEUT:1SG cover 2PL:IO PREP secret

"(For me to) cover it up"

(b) aro we fo n nəmân

CONJ NEUT:2PL give:APPL 1SG:IO money

then give me money

(35) aromúfáregô

aro m-ú fá re gó
 CONJ IRR-1SG cover 2PL:IO PREP

then I'll cover (it up for you)"

(36) goréforənəmâḥkádágə

gáko dó ē fo rə nəmân kádágó
 front DET:F 3PL:CMPL give:APPL 2PL:IO money a.lot
Then they gave him a lot of money

(37) anagədâḥwefoḥálgəsógódoḥmúnúwadar(gə)

k'ani ā gə dan gí we fo n
 CONJ 3SG:M:CMPL say 3PL:IO COMP NEUT:2PL give:APPL 1SG:IO
and he said to them, "Give me

(b) álgə só gí

person DET:M COMP
the corpse so that

(c) don m-ú dā ní u wi-l do
 1SG:IND IRR-1SG go L.P. NEUT:1SG be.lost-CAUS PRO
I go and get rid of it"

(38) anasiadēgólwe

k'ani ā sī ā dā gó-l-we
 CONJ 3SG:M:CMPL take 3SG:M:CMPL put head-NMOD:F-neck
Then he took (it) and put (it) on the base of his neck

(39) adənígólə

ā dā ní gó lə
 3SG:M:CMPL go L.P. with PRO
He went away with it

(40) anákamegəndílamam

ā dā ní
 3SG:M:CMPL go L.P.
He went

(b) ā ka mēgə n ndá-y la mam
 3SG:M:CMPL find people MOD:PL INCMPL-3PL cut honey
and found people who were collecting honey

- (41) anagədaŋgəwreǰáwelaŋmamnoŋdók'áshímondególsí
 k'ani a gə dan gí wre wá
 CONJ NEUT:3SG:M say 3PL:IO COMP 2PL:IND TAG
Then he said to them, “Hey you, please give me
- (b) we la n mam ró-n dó k'áǰí mo
 NEUT:2PL cut 1SG:IO honey MOD:F-POSS:2PL DET:F small IMP:INTENS
a little bit of your honey”
- (c) nde gó-l sí
 be.at:PL head-NMOD:F tree
They were in a tree
- (42) anigəgínélakəŋa
 k'ani i gə gí mǎ-ne la kəŋ wa
 CONJ NEUT:3PL say COMP IRR-1PL:EXCL cut 2SG:M:IO NEG
Then they said, “We won't give you any”
- (43) wesíkanaélaŋk'áshímo
 we sī kanadí aro we la n k'áǰí mo
 NEUT:2PL take patience CONJ NEUT:2PL cut 2SG:M:IO small IMP:INTENS
“Please show kindness (with me) and give me a little bit of honey”
- (44) nélakəŋa
 mǎ-ne la kəŋ wa
 IRR-1PL:EXCL cut 2SG:M:IO NEG
“We won't give you any”
- (45) welaŋaŋm:ádədəge
 wē la n wa ngá aro m-ú mādē dəge
 2PL:CMPL cut 2SG:M:IO NEG whole CONJ IRR-1SG die INTENS
“If you don't give me any, I'll die”
- (46) wántemadəwanélakəŋa
 wánte mādē waro mǎ-ne la kəŋ wa
 perhaps IMP:2SG:die otherwise IRR-1PL:EXCL cut 2SG:M:IO NEG
“Go ahead and die, we won't give you any”

- (47) (kə)góálgəŋamadəsáháwgósido
 gáko dó álgə n ā mādə só
 front DET:F person MOD:M 3SG:M:CMPL die DET:M
Then, the man that was dead,
- (b) ā hó ho gó sí dó
 3SG:M:CMPL hold L.P. with tree DET:F
he (i.e., the squirrel) propped (him) up against the tree
- (48) anansa(dən)síts¹eaŋgodo
 k'ani dan só ā sey ts¹e a ngō dó
 CONJ 3SG:M:IND DET:M 3SG:M:CMPL withdraw outside PREP place DET:F
then he (i.e., the squirrel) withdrew from the place
- (49) ani:sóe
 k'ani i só he
 CONJ NEUT:3PL climb L.P.
Then they were climbing down (from the tree)
- (50) abloŋpálsóndagáko
 aro blō n pál só nda gáko
 CONJ man MOD:M one DET:M be.at:M front
and the one that was in front
- (51) aniagórəabálaŋsi
 k'ani a gə rə abá la n si
 CONJ NEUT:3SG:M say 3SG:M:IO friend IMP:2SG:cut 1SG:IO REFL
said to him (the corpse), “Hey buddy, let me pass”
- (52) agəkéndójagí
 a gə kón ndó yagí
 NEUT:3SG:M say 2SG:M:IND PRES who
(The other man) said, “Hey you, who is it?”
- (53) ablosóndahósiogósídó
 aro blō só da ndáwe ā hó si ho
 CONJ man DET:M CONTR DEM:M 3SG:M:CMPL hold REFL L.P.
“It’s the man (who wanted honey), he’s propped himself up

(b) gó sí dó
with tree DET:F
against the tree

(54) abálaŋsidálarəsija
abá la n si
friend IMP:2SG:cut 1SG:IO REFL
“Hey buddy, let me pass”

(b) ðe a la rə si wa
S.R. NEUT:3SG:M cut 3SG:M:IO REFL NEG
But he wouldn't let him pass

(55) anagóéŋgəŋsó
k'ani en a gó-e n-gə-n só
CONJ 3SG:M PREP head-PL MOD:M-POSS-3SG:M DET:M
Then the man above him_i

(56) agərəgəkəŋkəreensómo
ā gə rə gí
3SG:M:CMPL say 3SG:M:IO COMP
said to him_i

(b) kón kó rə ensó mo
2SG:M:IND IMP:2SG:hit 3SG:M:DO foot IMP:INTENS
“Hey you_i, kick him_k!”

(57) anakəreensəanak'oe
k'ani ā kó rə ensó k'ani ā k'ō hē
CONJ 3SG:M:CMPL hit 3SG:M:DO foot CONJ 3SG:M:CMPL fall L.P.
Then he_i kicked him_k and he_k fell to the ground

(58) gákodá:madə
gáko dó ā mādē
front DET:F 3SG:M:CMPL die
Then he died (or so they thought)

(59) há

ha

INTERJ

Ha!(60) aʃiŋgók^laləts^lek^lonáwelaálgəwá

ā ʃɪn gó k^lani ā lā ts^le k^lo
 3SG:M:CMPL hear PREP CONJ 3SG:M:CMPL come outside still

He (the squirrel) heard then he came out

(b) ná wē la álgə wá

now 2PL:CMPL kill person TAG

“You’ve killed someone, have you?”

(61) fánegəaʃírígónəfokəŋnəmâŋ

fá ne gə aʃírí
 IMP:2SG:cover 1PL:EXCL:IO PREP secret

“Cover (it) up for us

(b) gí ne fo kən nəmân

COMP NEUT:1PL:EXCL give:APPL 2SG:M:IO money

and we’ll give you money”(62) gákodómamŋgáŋdóəforənəmâŋk^lanai

gáko dó mam ro-gó-dan dó
 front DET:F honey MOD:F-POSS-3PL DET:F

Then, their honey(b) ē fo rə nəmân k^lani ā i

3PL:CMPL give:APPL 3SG:M:IO money CONJ 3SG:M:CMPL take

they gave him (and) money and he took it

(63) anagədaŋgíwefoŋálgəsódónmúwadarđo

k^lani ā gə dan gí
 CONJ 3SG:M:CMPL say 3PL:IO COMP

Then he said to them,

(b) we fo n álgə só
 NEUT:2PL give:APPL 1SG:IO person DET:M
“Give me the corpse

(c) don m-ú wi-l do
 1SG:IND IRR-1SG be.lost-CAUS PRO
and I’ll get rid of it”

(64) gákoradənî
 gáko dó ā dā ní
 front DET:F 3SG:M:CMPL go L.P.
Then he went away

(65) asiadəgólwek’anígólək'o
 ā sī ā dā gó-l-we
 3SG:M:CMPL take 3SG:M:CMPL put head-NMOD:F-neck
He took (the corpse) and put (it) on the back of his neck

(b) k'ani ā dā ní gó lə k'o
 CONJ 3SG:M:CMPL go L.P. with PRO still
then he went away with it (yet again)

(66) adəgejholme
 ā dā gē-i ho-l-me
 3SG:M:CMPL go mouth-NMOD:PL house-NMOD:F-sultan
He went to the sultanate

(67) dábrá:dagófétábtábtág
 dábrá ā dā gó jé táb táb táb
 door 3SG:M:CMPL touch PREP hand IDEO IDEO IDEO
He knocked on the door knock knock knock

(68) álgənamadəsáháwgólə
 álgə n ā mādē só ā hó ho gó lə
 person MOD:M 3SG:M:CMPL die DET:M 3SG:M:CMPL hold L.P. with PRO
The person who had died, he propped (him) up against it (i.e., the door)

(69) anasásits'e

k'ani ā s̄a si ts'e
 CONJ 3SG:M:CMPL sit REFL outside
then he withdrew

(70) gákodó:eləts'e jagí

gáko dó ē l̄a ts'e yagí
 front DET:F 3PL:CMPL come outside who
Then they came out, "Who (is it)?"

(71) yagídeblon̄simáagamsówa

yagí d̄e bl̄o n si má a g-amsó wa
 who S.R. man MOD:M NONSPEC:M FOC NEUT:3SG:M say-word NEG
Who (is it)?" But no one answered

(72) álgəsé:kárəbəndágə

álgə só ē ká rə bəndágə
 person DET:M 3PL:CMPL hit 3SG:M:DO gun
The corpse, they shot him

(73) anak'oê

k'ani ā k'ō hé
 CONJ 3SG:M:CMPL fall L.P.
and he fell down

(74) esienéhásárka

ē s̄i ē d̄ə ní ē hó sárká
 3PL:CMPL take 3PL:CMPL go L.P. 3PL:CMPL throw latrine
They took (him) and went and put (him) into the latrine

(75) ɓabáanosəngólmó

ɓabá n-ō s̄a ngólmó
 story 3SG:F-CMPL sit tree(SP)
The end
(lit. (the) story sat (in the (type of) tree)

Interlinearized text C: The wisdom of the aged

Speaker: Geime Abani

Gender: Male

Date of recording: February 17, 2000

Age at time of recording: 80

Birthplace: Makary

Village: Makary (Welio neighborhood)

Languages spoken: Makary Kotoko

(1) (a)mejgâjójáworodó

mēy gay yó a wo ro dó
 people.of:PL first DET:PL PREP village DEM:F DET:F
The first people of this village

(2) moetíajó

moe tíā yó
 sultan:PL olden.times DET:PL
the sultans of olden times

(3) ebofaekádágkadágə

ē bo fā-ē kádágó kádágó
 3PL:CMPL have year-PL a.lot a.lot
they lived many many years

(4) k'animesətíasóajagólk'ə

k'ani me sə tíā só ā yā gālk'ə
 CONJ sultan NMOD:M olden.times DET:M 3SG:M:CMPL become old:M
Then a sultan of olden times was very old

(5) ajagólk'əemaṅsimíálgasimíálgokúrojabo

ā yā gālk'ə ēman n si
 3SG:M:CMPL become old:M year MOD:M NONSPEC:M
He became old

(b) míá 1 gāsi míá 1 gokúro yahe ā bo
 hundred NMOD:F two hundred NMOD:F three even 3SG:M:CMPL have
he was two hundred, even three hundred years old

(6) k'aniamadə
 k'ani ā mādē
 CONJ 3SG:M:CMPL die
then he died

(7) (X)ngoroamadək'aniefolónḡngəngómńáru
 ngō ro ā mādē k'ani
 place MOD:F 3SG:M:CMPL die CONJ
When he died

(b) ē fo ló n-gə-n gómńárū
 3PL:CMPL give:APPL child MOD:M-POSS-3SG:M young.man
they gave (the chieftaincy) to his son, a young man,

(8) k'aniwəlosó?asakəndáḡe
 k'ani lo só ā sā kəndáḡē
 CONJ child DET:M 3SG:M:CMPL sit throne
then the son ascended to the throne

(9) k'aniagəḡí(so?)téďəḡgarandasó(so)wekamaráḡəfəḡó
 k'ani ā ḡə ḡí téďē n gara nda só
 CONJ 3SG:M:CMPL say COMP month MOD:M like DEM:M DET:M
then he said, "At a month like this one (i.e., in a year from now)

(b) we ka maráḡə fəḡó
 NEUT:2PL find RECIP all
you should all come together

(10) məskínḡaworólakesóaluḡgoró
 məskîn n a wo ró lāke só
 poor MOD:M PREP village DEM:F each DET:M
every subject of this village

(b) a lū ngō ró
 NEUT:3SG:M come place DEM:F
should come here”

(11) mbîṅmbîṅmbîṅk'aedegójok'aní
 mbîn mbîn mbîn k'aní ē dē gó yo k'aní
 good good good CONJ 3PL:CMPL disperse PREP L.P. CONJ
“Very well”. Then they dispersed

(12) faʃártəngosádəgok'aekamarágəđəṅagej(hol)holmedó
 fā ʃártə n-go só ā dē gó k'aní
 year time MOD:M-POSS DET:M 3SG:M:CMPL put PREP CONJ
The year, the appointed time arrived then

(b) ē ka marágə dón
 3PL:CMPL find RECIP IDEO
they all came together

(c) a gē-i ho-l-me dó
 PREP mouth-NMOD:PL house-NMOD:F-sultan DET:F
in front of the sultanate

(13) ani
 k'aní
 CONJ
Then

(14) (X)agədaŋgí
 a gə dan gí
 NEUT:3SG:M say 3PL:IO COMP
he (i.e., the sultan) said to them,

(15) wojəŋgi(gal)gəlk'elakəsóndílarə
 w-ō yá n gí
 1SG-CMPL want PREP:2PL COMP
“I wanted you because

- (b) gə̀lk'ə lāke só ndá-y la rə
 old:M each DET:M INCMPL-3PL kill 3SG:M:DO
every old man, they should kill him
- (16) deabáŋgənesógə̀lk'əabofaemíálgokúrosáŋgamadədó
 de abá n-gə́-ne só gə̀lk'ə
 S.R. father MOD:M-POSS-1PL:EXCL DET:M old:M
My father was old
- (b) ā bo fā-ē míá l gokúro
 3SG:M:CMPL have year-PL hundred NMOD:F three
He was three hundred years old
- (c) sərāngí ā mādə́ dó
 before 3SG:M:CMPL die CONJ
before he died
- (17) k'andəŋ(do)ndówosóŋgorogəŋdəŋdɛlok'áŋí
 k'ani don ndə́we w-ō só ngō ro-gə́-n
 CONJ 1SG:IND DEM:F 1SG-CMPL enter place MOD:F-POSS-3SG:M
And now I have ascended to his place
- (b) don de lo k'áŋí
 1SG:IND S.R. child small
but I'm a small child
- (18) gə̀lk'ənondómásatəŋalardədówa
 gə̀lk'ə nondó m-á sā tən a lárdé dó wa
 old:M in.this.way IRR-3SG:M sit ground PREP country DET:F NEG
(therefore) any old man will not live in the region
- (19) íléelejamílarə
 ílé e le yahe m-í la rə
 except 3SG:M what even IRR-3PL kill 3SG:M:DO
Whoever it may be, they will kill him”

- (20) háilarəilarə
há i la rə i la rə
INTERJ NEUT:3PL kill 3SG:M:DO NEUT:3PL kill 3SG:M:DO
“Ha! they should kill him?” “They should kill him”
- (21) gəlk'əjəaromílarəjík
gəlk'ə yə aro m-í la rə yígə
old:M already CONJ IRR-3PL kill 3SG:M:DO only
If he is already hold, they'll just kill him”
- (22) ani
k'ani
CONJ
Then
- (23) fərtəadəgók'anidasí(X)
fərtə ā də gó k'ani dasí
time 3SG:M:CMPL put PREP CONJ enough
The appointed time arrived then
- (24) əfíaskərənjóts'e
ā fí áskár-e n-gə-n yó ts'e
3SG:M:CMPL pour soldier-PL MOD:PL-POSS-3SG:M DET:PL outside
he sent his soldiers out
- (25) ilailailagəlk'əlakeahórogəlk'əndalə
i la i la i la
NEUT:3PL kill NEUT:3PL kill NEUT:3PL kill
and they killed and killed and killed
- (b) gəlk'ə lāke a ho ro gəlk'ə nda lə
old:M each PREP house MOD:F old:M be.at:M PRO
each old man at a house where an old man was
- (26) garanjrgəner(be)jígənekəbkəbuogówailanekáká[kakə]jájdihíjo
gara nyi ro-gə-ne ro dó
like thing:ABSTR MOD:F-POSS-1PL:EXCL DEM:F DET:F
just like I (i.e., the storyteller) am

(b) i ʃí gə-ne káb̥kəbu ho gó wa
 NEUT:3PL pour PREP-1PL:EXCL machete L.P. with thing:CONC:PL
They attacked us with machetes and with (other) things

(c) i la ne kákáʃ kákáʃ
 NEUT:3PL kill 1PL:EXCL:DO IDEO IDEO
they killed us completely

(d) yá-y dē i há yo
 VOL-3PL throw NEUT:3PL put L.P.
and they threw (the bodies) away

(27) kʼawəlópáIndawodósóadəgəabásóába
 kʼani lo pál nda wo dó só
 CONJ child one be.at:M village DET:F DET:M
Then one son at the village

(b) ā dē gə abá só ho ába
 3SG:M:CMPL go PREP father DET:M L.P. father
went to his father, “Father,

(28) kəŋdendógəlkʼə
 kən dē ndó gəlkʼə
 2SG:M:IND S.R. PRES old:M
you’re old

(29) ndé(gəneféne)mesá:féneagənəgí
 ndéwe me só ā fé ne
 DEM:M sultan DET:M 3SG:M:CMPL call 1PL:EXCL:DO
and now the sultan called us

(b) ā gə ne gí
 3SG:M:CMPL say 1PL:EXCL:IO COMP
and said,

- (30) blɔŋgəlk'əla:kesóilarə
 blō n gəlk'ə lāke só i la rə
 man MOD:M old:M each DET:M NEUT:3PL kill 3SG:M:DO
“Each old man should be killed
- (31) arondóʃórawadí
 aro ndó ʃóra wadí
 CONJ PRES solution which
so what can we do about it?”
- (32) k'agəwlɔŋgəŋsɔʃəwələmpáráŋarohəŋlə
 k'ani ā gə ló n-gə-n só
 CONJ 3SG:M:CMPL say child MOD:M-POSS-3SG:M DET:M
Then he said to his son,
- (b) ʃəw wələm páran aro há n lə
 IMP:2SG:dig hole wide CONJ IMP:2SG:put 1SG:DO PRO
“Dig a wide hole then put me in it
- (33) ajágəbisihálaro(ŋ)doŋmúsólarogórogodófáw
 aro yá gə bisí há lə
 CONJ IMP:2SG:want PREP mat IMP:2SG:put PRO
then get a mat and put (it) over it (i.e., the hole)
- (b) aro don m-ú só lə aro
 CONJ 1SG:IND IRR-1SG enter PRO CONJ
then I'll go into it (i.e., the hole)
- (c) gó ro-go dó fá ho
 head MOD:F-POSS DET:F IMP:2SG:cover L.P.
(and then) cover the top of (it)
- (34) alewələmk'áʃínondafon(do)íŋgago
 aro le wələm k'áʃí
 CONJ IMP:2SG:cut hole small
then cut a small hole (in the mat)

(b) no mǎ-g fo n íngā gó
 3SG:F IRR-2SG give:APPL 1SG:IO food PREP
by which you'll give me food

(35) k'agəmbîŋmúhəŋ
 k'ani a gə əl mbîn m-ú hān
 CONJ NEUT:3SG:M say NEUT:3SG:F be.good IRR-1SG do
Then he (i.e., the son) said, "Very well, I'll do (it)"

(36) aʃéwələmʃǎlán
 ā ʃéw wələm ʃǎlán
 3SG:M:CMPL dig hole deep
He dug a deep hole

(37) k'alahələbasó
 k'ani ā lū ā há lə abá só
 CONJ 3SG:M:CMPL come 3SG:M:CMPL put PRO father DET:M
then he came and put his father in it

(38) góŋgoroadorəsəmáŋgogóŋgoroaforəamégó
 gó ngō ro a do rə səm-ən gó
 with place MOD:F NEUT:3SG:M take 3SG:M:IO eat-INF PREP
with a place by which to give him food

(b) gó ngō ro a fo rə amé gó
 with place MOD:F NEUT:3SG:M give:APPL 3SG:M:IO water PREP
and a place by which to give him water

(39) isaenondóisaenondóisaenondók'ani
 i sǎ he nondó i sǎ he nondó
 NEUT:3PL sit L.P. in.this.way NEUT:3PL sit L.P. in.this.way
They went on living like this for some time

(b) i sǎ he nondó k'ani
 NEUT:3PL sit L.P. in.this.way CONJ
then

- (40) afédánwreməskíreloro
 ā fé dán wre məskír-e loró
 3SG:M:CMPL call 3PL:DO 2PL:IND poor-PL IMP:2PL:come
he (i.e., the sultan) called them, “You, (my) subjects, come”
- (41) elufo:gók'anakegədaŋgígalk'eweladəjejejá
 ē lū fogó k'ani ā kē gə-dan gí
 3PL:CMPL come all CONJ 3SG:M:CMPL ask PREP-3PL COMP
They all came then he asked them,
- (b) gālk'e wē la dán ē gē wá
 old:PL 2PL:CMPL kill 3PL:DO 3PL:CMPL be.finished TAG
“The old men_p have they_k killed them_p they_i're dead, right?”
- (42) egefogófogó
 ē gē fogó fogó
 3PL:CMPL be.finished all all
“They are all dead”
- (43) galk'eegeege
 gālk'e ē gē ē gē
 old:PL 3PL:CMPL be.finished 3PL:CMPL be.finished
“Are they dead?” “They're dead”
- (44) asórowosówodók'ani(gəlk'əŋ)wokagəlk'əahodóaro
 aro só ro w-ō só wo dó k'ani
 CONJ day MOD:F 1SG-CMPL enter village DET:F CONJ
“Then when I enter the village and
- (b) w-ō ka gəlk'ə a ho dó aro
 1SG-CMPL find old:M PREP house DET:F CONJ
I find an old man at a house, then
- (45) múladəŋgólósofófogó
 m-ú la dán gó lo só fogó
 IRR-1SG kill 3PL:DO with son DET:M all
I'll kill him and his son both”

- (46) jahekáljahekál
 yahe kál yahe kál
 even exactly even exactly
“Whatever (i.e., so be it)”
- (47) elegójolánj
 ē dē gó yo lán
 3PL:CMPL disperse PREP L.P. completely
Then they all dispersed
- (48) galk'eege
 gālk'e ē gē
 old:PL 3PL:CMPL be.finished
The old men were dead
- (49) aǰéáskárewodóijágagalk'e
 ā ǰí áskár-e wo dó i yá gə gālk'e
 3SG:M:CMPL pour soldier-PL village DET:F NEUT:3PL want PREP old:PL
He sent the soldiers into the village to look for old men
- (50) galk'eidálálájege
 gālk'e i dalá lán ē gē
 old:PL NEUT:3PL not.exist completely 3PL:CMPL be.finished
There were no old men at all. They were dead
- (51) nondónondónondónondók'anidasíagəǰálasóronokadāwelunđaw(e)jaŋ
 nondó nondó nondó nondó k'ani dasí
 in.this.way in.this.way in.this.way in.this.way CONJ enough
Life went on like this for some time then
- (b) a gə yála só ro nondó kadá
 NEUT:3SG:M say IMP:2PL:go day MOD:F in.this.way such.and.such
he (i.e., the sultan) said, “Go. On such and such a day
- (c) we lu gí ndá-w yá n
 NEUT:2PL come COMP INCMPL-1SG want PREP:2PL
come because I need you”

(52) fártəsádəgôk'ækamaráɡə

fártə só ā d̥ə gó k'ani ē ka maráɡə
 time DET:M 3SG:M:CMPL put PREP CONJ 3PL:CMPL find RECIPIENT

The appointed time arrived then they all gathered together

(53) d̥əŋagejhórogəŋdó

d̥ən a gē-i ho ro-gə-n dó
 IDEO PREP mouth-NMOD:PL house MOD:F-POSS-3SG:M DET:F

in front of his house

(54) anagədaŋúwojáŋɡî:

k'ani a gə dan gí w-ō yá n gí
 CONJ NEUT:3SG:M say 3PL:IO COMP 1SG-CMPL want PREP:2PL COMP

Then he said to them, "I wanted you because"

(55) jágwegáŋhóe

yá-g-we gá n ho he
 VOL-LINK-2PL build 1SG:IO house L.P.

you're going to build me a house"

(56) joahodómónegáekál:a

iyo aro ho dó mé-ne gá he kál wá
 okay CONJ house DET:F IRR-1PL:EXCL build L.P. exactly TAG

"Okay, we'll build the house, right?"

(57) hodómónegáj

ho dó mé-ne gá he
 house DET:F IRR-1PL:EXCL build L.P.

The house, we'll build (it)"

(58) d̥amáŋirowojádəŋdóhódó

d̥amá nyi ro w-ō yá do n dó
 ADVERB thing:ABSTR MOD:F 1SG-CMPL want MMR PREP:2PL DET:F

"But, the reason why I wanted you,

(b) ho dó

house DET:F

the house,

(59) wreḏehoróḡndúwatəḡ

wre ḏe ho ró-n ndwa tən
 2PL:IND S.R. house MOD:F-POSS:2PL be.at:F ground
your houses are (built) on the ground

(60) donḏehorogundúwatəḡdóḏalá

don ḏe ho ro-g-u ndwa tən dó
 1SG:IND S.R. house MOD:F-POSS-1SG be.at:F ground DET:F
But me, if my house is (built) on the ground

(b) əl ḏalá

NEUT:3SG:F not.exist
that's not possible

(61) ílémêḡáḡdabúrogasámegótəḡ

íle má-we ḡá n dabú ro-gə sámē ḡó tən
 except IRR-2PL build 1SG:IO middle MOD:F-POSS sky with ground
Only if you build me (my house) between heaven and earth

(62) nodówéḡáḡlwəromúts'am:a

ndo dó wē ḡá n lə wa aro
 DEM:F DET:F IRR-2PL build 1SG:IO PRO NEG CONJ
If you don't do this for me then

(b) m-ú ts'am wa

IRR-1SG agree NEG
I won't be happy"

(63) anigəḡóḡmbîḡ

k'ani i ḡə ḡí əl mbîn
 CONJ NEUT:3PL say COMP NEUT:3SG:F be.good
Then they said, "Very well"

(64) edegójo

ē ḏē ḡó yo
 3PL:CMPL disperse PREP L.P.
They dispersed

(65) k^laniwəlosó

k^lani lo só
 CONJ child DET:M
Then the son

(66) adənégáfoabásósəm̄əŋ

ā d̄ə ní gí a fo abá só səm-ən̄
 3SG:M:CMPL go L.P. COMP NEUT:3SG:M give:APPL father DET:M eat-INF
went to give his father food

(67) abaságərəgí(mu)wreŋirokekókéromejadənhordó

abá só a gə rə gí wre
 father DET:M NEUT:3SG:M say 3SG:M:IO COMP 2PL:IND
His father said to him, “You all,

(b) nyi ro kərkókə

thing:ABSTR MOD:F heavy
The weighty matter

(c) ro me ā d̄ə n ho ro dó
 MOD:F sultan 3SG:M:CMPL put PREP:2PL L.P. DEM:F DET:F
that the sultan has put upon you all

(68) ndónjilewehəŋkəŋgolugogəŋgí

ndó nyi le wē hən kón g-ō lū
 PRES thing:ABSTR what 2PL:CMPL do 2SG:IND 2SG-CMPL come
What is it that are you to do? [...] You come

(b) g-ō gə n gí
 2SG-CMPL say 1SG:IO COMP
and tell me that

(69) mesáaféregí(jagwejgarə)dabúrogəsámegótəŋdawegárələhowá

me só ā fé re gí
 sultan DET:M 3SG:M:CMPL call 2PL:DO COMP
the sultan called you that

(b) dabú ro-gə sámē gó tón da
 middle MOD:F-POSS sky with ground CONTR
between heaven and earth

(c) wê gá rə lə ho wá
 IRR:2PL build 3SG:M:IO PRO house TAG
you are to build him a house, eh?"

(70) ɲj róda:fédone
 nyi ro da ā fé do ne
 thing:ABSTR DEM:F CONTR 3SG:M:CMPL call MMR 1PL:EXCL:DO
"That's why he called us"

(71) awegəgádile
 aro wē gə gí ɕi le
 CONJ 2PL:CMPL say COMP thing:CONC what
"Then what did you say (to him in response)?"

(72) áʔaɲjománegəgádileába
 áʔa nyi ró
 no thing:ABSTR DEM:F
"(Regarding) this matter,

(b) mǎ-ne gə gí ɕi le ába
 IRR-1PL:EXCL say COMP thing:CONC what father
what could we say (to him), Father?

(73) hádabúrogəsámegótəɲdómêgəgádile
 ha dabú ro-gə sámē gó tón dó
 INTERJ middle MOD:F-POSS sky with ground DET:F
Ha! Between heaven and earth

(b) mǎ-ne gə gí ɕi le
 IRR-1PL:EXCL say COMP thing:CONC what
what could we say?"

- (74) (aXagə)agəwłónḡəḡsógákəḡgodənáro
 a gə ló n-gə-n só gí
 NEUT:3SG:M say child MOD:M-POSS-3SG:M DET:M COMP
He said to his son,
- (b) kón g-ō dē ní aro
 2SG:M:IND 2SG-CMPL go L.P. CONJ
“If you go (to the sultanate)
- (75) mágkamesólamágkarəwa
 má-g ka me só la má-g ka rə wa
 IRR-2SG find sultan DET:M DISJ IRR-2SG find 3SG:M:DO NEG
will you be able to find the sultan or not?”
- (76) amúkarə
 aro m-ú ka rə
 CONJ IRR-1SG find 3SG:M:DO
“I’ll find him”
- (77) mágkarəamúkarə
 má-g ka rə wá m-ú ka rə
 IRR-2SG find 3SG:M:DO TAG IRR-1SG find 3SG:M:DO
“You’ll be able to find him, right?” “I’ll be able to find him”
- (78) sórogokarəaro
 só ro g-ō ka rə aro
 day MOD:F 2SG-CMPL find 3SG:M:DO CONJ
“When you find him
- (79) (ferəḡər)dəḡəḡwa:gáko(ro)rogəḡdágərəḡgóbarkáronḡō
 dē gə-n ho a gáko ro-gə-n dō
 IMP:2SG:go PREP-3SG:M L.P. PREP front MOD:F-POSS-3SG:M DET:F
go before him
- (b) aro gə rə gí barká ro-ngó
 CONJ IMP:2SG:say 3SG:M:IO COMP blessing MOD:F-POSS:2SG:M
and say, ‘Your excellency,

- (80) nduwenelugógwáneikíđanğónetfjbjágənehəŋkíđa
 ndáwe nē lū gó gwáne i
 DEM:F 1PL:EXCL:CMPL come with stuff NMOD:PL
Here we are with
- (b) kíđa n-gá-ne fjib yá-gə-ne hən kíđa
 work MOD:PL-POSS-1PL:EXCL IDEO VOL-PREP-1PL:EXCL do work
all our work tools. We're ready to do the work (you asked for)
- (81) dódâkâđdamágkónefjuhêasóranğímónehəŋkíđadó
 dó da kón da má-g ká ne fyū hé
 DET:F CONTR 2SG:M:IND CONTR IRR-2SG trace 1PL:EXCL:IO line L.P.
but you'll need to trace the foundations (of the house) for us
- (b) aro sárāngí má-ne hən kíđa dó
 CONJ before IRR-1PL:EXCL do work DET:F
before we can do the work,
- (82) warománebógónehəŋa
 waro má-ne bó gó ne hən wa
 otherwise IRR-1PL:EXCL be.able PREP NEUT:1PL:EXCL do NEG
otherwise we won't be able to do (it)'
- (83) (najo)əlmbíŋnodóđakâŋsódənígərə
 əl mbîn ndo dó da kón só
 NEUT:3SG:F be.good DEM:F DET:F CONTR 2SG:M:IND DET:M
Very well, those (words), you,
- (b) dā ní gə rə
 IMP:2SG:go L.P. say 3SG:M:IO
go tell him''
- (84) awlosé(Xh)edəŋgodók'ani
 aro lo só ē dā ngō dó k'ani
 CONJ child DET:M 3PL:CMPL go place DET:F CONJ
Then the son (and the others) went to the place (i.e., the sultanate)

(85) adəgəmesô

ā dā gə me só ho
 3SG:M:CMPL go PREP sultan DET:M L.P.

He went to the sultan (and said),

(86) barkáronḡóndúwenelu

barká ro-ngó ndáwe nē lū
 blessing MOD:F-POSS:2SG:M DEM:F 1PL:EXCL:CMPL come

“Your excellency, we have come

(87) (gotʃidaɛ)gógwáneḡnéʃipjágəneŋkídadódámákəŋdamáḡts^larga:kónɛfjuhé

gó gwáne n-gə-ne ʃíp
 with stuff MOD:PL-POSS-1PL:EXCL IDEO

with all our tools

(b) yá-gə-ne hān kídá dó dáma kón da
 VOL-PREP-1PL:EXCL do work DET:F ADVERS 2SG:M:IND CONTR

We’re ready to do the work, but you

(c) má-g ts^lāga gə kó ne fyū hē
 IRR-2SG stand.up NEUT:2SG trace 1PL:EXCL:IO line L.P.

need to get up and trace the foundations (of the house) for us”

(88) k^lani(aʔaʔ)mesāndəḡəŋʔenondó:k^lana:kəŋsó

k^lani me só ā ndə ḡə-n he nondó
 CONJ sultan DET:M 3SG:M:CMPL see PREP-3SG:M L.P. in.this.way

Then the sultan looked at him for a while

(b) k^lani a gə kón só
 CONJ NEUT:3SG:M say 2SG:M:IND DET:M

then he said, “You,

(89) abúŋsógolarəwandalə(X)

abá n só ḡ-ō la rə wa nda lə
 father MOD:M:POSS:2PL DET:M 2SG-CMPL kill 3SG:M:DO NEG be.at:M PRO

You didn’t kill your father. He’s (still) alive,

(90) (X)abúṅsó

abá n só
 father MOD:M:POSS:2PL DET:M
your father

(91) (XjoX)jógəlk'ədamákaləabúṅsógolarəwa

ndó gəlk'ə da m-á ka lə
 PRES old:M CONTR IRR-3SG:M find PRO
(only) an old man would have found it (i.e., the solution)

(b) abá n só g-ō la rə wa
 father MOD:M:POSS:2PL DET:M 2SG-CMPL kill 3SG:M:DO NEG
You didn't kill him your father

(92) amáts'ogodoníhalásamságe

damá ts'ogo do ní
 ADVERS IMP:2PL:stand.up IMP:2PL:go L.P.
Nevertheless, get up and go

(b) halás amsó ā gē
 okay word 3SG:M:CMPL be.finished
There's no more to be said

(93) (wolu:)donḡdamúkərefjuhéarodotfídarón(X)

don da m-ú kó re fyū he aro
 1SG:IND CONTR IRR-1SG trace 2PL:IO line L.P. CONJ
If I am to trace out the foundations (of the house) for you then just

(b) do kída ró-n
 IMP:2PL:go work MOD:F-POSS:2PL
go about your business"

(94) amsésóamehénondó

amsé só ā mē hé nondó
 word DET:M 3SG:M:CMPL remain L.P. in.this.way
That's the end of that story
(lit. the word stays like that)

Appendix B: Makary Kotoko – English lexicon

The following list of almost 1000 words includes the nouns, verbs, adjectives, adverbs, ideophones, and interjections that occur in the corpus. All (mainly) grammatical items discussed in the grammar (prepositions, modifying markers, non-specific markers, numerals, demonstratives, determiners, pronouns, subject markers, aspect/mode markers, copulas, locative particles, conjunctions, complementizer, negative marker, interrogative markers, and pragmatic markers) are not included here. I have not included proper names either. I have attempted to indicate if an item is borrowed and suggested a probable source (KA. – Kanuri, AR. – Arabic, S.A. – Shoa Arabic, HA. – Hausa, FL. – Fulfulde, FR. – French, EN. – English). In some cases I have suggested that an item might be originally from one language but borrowed through an intermediary (e.g. AR. via KA.). The bibliographical sources for the suggested borrowing are found in the Bibliography. I have not indicated for each word which bibliographical source was used. For nouns, I indicate the gender/number (n.f, n.m, n.pl). If a noun can be of either gender I have only given its lexical category. For verbs, I indicate the transitivity (v.intr, v.tr, v (for ambitransitives)). Ambitransitive verbs that require a following preposition (what I have called prepositional verbs) are noted: v.prep. Adjectives (adj), adverbs (adv), ideophones (ideo), and interjections (interj) are indicated as such. I present the words using the following alphabetic ordering: a, b, ɓ, d, d', e, ə, f, g, h, i, ɗ, k, k', l, m, mb, n, nd, ng, o, p, r, s, ʃ, t, ts', tʃ, tʃ', u, w, y, z. I give the lexeme, followed by the grammatical information, then the gloss, and (if relevant) the proposed source of borrowed words. Some words (particularly those borrowed from Arabic)

contain a glottal stop (?), usually between identical vowels. Though the glottal stop doesn't function as a phoneme in Makary Kotoko I note its presence. Vowel length is not distinctive in Makary Kotoko but when it occurs, particularly in ideophones, I note its presence with a colon (:).

a

á?a, adv, *no*
abá, n.m, *father*
abáná, n.m, *younger brother of father*, KA.
adəgəm, n.m, *stork*
adəgēn, adv, *next*
áfil, v, *pardon*, AR.
áfta, n.m, *weed* (SP)
áftə, n.m, *season, time, moment*, AR.
āhe, n.m, *snake*
áɟābu, n.f, *surprise*, AR.
akúra, n.m, *older brother of father*, KA.
álámā, n.m, *order, lifestyle*, AR.
ale, interj, *response to a greeting*, AR.?
aləgā, n.f, *created thing, creation, crowd*, AR.
álgə, n.m, *person*, AR.
álfu, n.m, *prayer*, AR.
alín, n.f, *color*, AR.
alúó, n, *Koranic writing slate*
alyábu, n.m, *sash, turban*, AR.
amân, n.f, *confidence, trust*, AR.
ambuk'ú, n.m, *fruit* (SP)

b

ba (he), v, *give birth*
babâ, n.f, *father's younger sister, father's wife*, KA.
bádī, n.f, *beginning*, KA.
bágtā, n.f, *cloth*, KA.
bala, n.f, *side*

amé, n.pl, *water*
amefû, n.m, *gruel*
amsó, n.m, *word, problem*
ánāsa, n.f, *conversation, chat*, AR.
anóm, n.f, *south*, KA.
angursə, n.f, *noon*
ánkal, adv, *slowly, quietly, attentively*, AR. via KA.
ánkal, n.m, *reason*, AR. via KA.
ansan, n.m, *forked branch*
ārfu, n.m, *elephant*
arúsu, n.m, *wedding (ceremony)*, AR.
asám, n.m, *poison*, AR. via KA.
asró, n.f, *today*
asíam, n.f, *fast*, AR.
áskar, n.m, *soldier*, AR.
askísu, n.f, *morning*
áʃírí, n.m, *secret*, AR. via KA.
atám, n.f, *food*, KA.
áwál, n.f/adv, *first of all*, S.A.
ázar, n.f, *late afternoon*, AR.

balay, ideo, *sound of wings opening up*
balími, n.f, *weapon*, KA.
baltó, n.f, *change*, KA.
bálté, n.f, *midmorning*, FL.?
bamínák'ō, n.m, *meal made with rice*
bán, adv, *wide (open)*
bári, n, *gourd*

barkâ, n.f, *blessing*, AR.
bás, ideo, *absolutely, surely*
básə, v, *pay back, reimburse*
báskū, n, *chicken*
bafí, v, *count*
batra batra, ideo, *sound of an old person walking*
bāts'ə, v, *pluck (feathers)*
bāts'i, n.f, *plucking, insult*
bázar, n, *early morning*, AR.?
bē, v, *be fattened*
bégólā, n.m, *harvest season*, KA.
bədi, n.f, *hill, small rise*
bələm, adv, *again*
bəlk'a, ideo, *sound of rolling around on the ground*
bón, ideo, *describes decapitating s.o.*
bón bón bón, ideo, *sound that container carried on the head makes while walking*
bəndógə, n, *gun*, AR.
bər, interj, *take warning!*
bərba, n.m, *rich man*, KA.
bərbər, n.f, *dust*, KA.
bərkā, n.f, *a particular area within the Makary Kotoko region*
bərkô, adj, *crafty*, KA.
bərní, n.f, *town, city*, KA.

ḡ

ḡa, v, *tie, attach*
ḡaḡá, n.f, *story (tale)*
ḡān, v, *stay quiet*
ḡara, v, *nourish*
ḡarān si, n.m, *nourishment*

d

dá, v, *push*
dā, v, *put*

bōro, v, *be enough*
bərta bərta, ideo, *sounds of a fight*
bəskon, n, *horse*
bətra bətra, ideo, *describes leading s.o. away against their will*
bīā (he), v, *attend*
bigô, n.f, *fine*, KA.
bisî, n, *mat*
bladégā, n.f, *bush country*, KA.
blángú, n.f, *tree* (SP)
bli, n.m, *sauce, broth*
blō, n.m, *man*
blōse, n.m, *male*
bo, v, *have*
bō, v, *pierce*
bó gə, v.prep, *be able*
bōga, n.m, *granary*
bral, adv, *(falling) suddenly*
brəm, ideo, *sound of two people beginning to fight*
brow brow brow, ideo, *sound of gossip spreading*
būgū, n.f, *explosion*
bulúlú, n.f, *sickness* (SP)
būnu, n.m, *wall*, HA.?
burgū, n.f, *complaint*, KA.
byats'ə, ideo, *describes walking on a sitting mat*

ḡārḡār, n.m, *piece of wood*

ḡāse, v, *be bad*

ḡələm, n.f, *back*

ḡī, v, *sleep*

ḡúlúk, ideo, *sound of sth falling into the mouth*

daʔán, n.f, *group*, AR.

dábári, n.f, *waiting period after divorce*, AR.

dábrá, n.f, *door*, KA.

dabû, n.f, *middle*, KA.
dadókorio, n.m, *meal made with rice*
dágu (he), v, *shake (a tree) to get its fruit*
dágwī, n.f, *stone, pit (of fruit)*
dáhara, n.f, *territory*, AR.
dalíl, n.m, *solution, means*, AR.
dám, adv, (*know, listen, see*) *well*, KA.
dāngāl, n.m, *meeting place*, AR.?
dangáya, n.f, *prison*, FL.?
darám, n.m, (*corn*) *measuring plate*, KA.
dārāsə, n.f, *suffering*, AR.
dáré, n, *canoe*
dasí, adv, *okay*, KA.
datên, adj, *early*, KA.
dáwrá, n.m, *gandura*, KA.
dē, v, *bite, shoot, throw*
dekóma, n.m, *town crier*, KA.?
déy, n.m, *pestle, pounding stick*
dē, v.tr, *go*
dégā, v, *show*
dəgatáḃē, n.f, *vulture* (SP)
dəge, adv, INTENS
dəgə dəgə, ideo, *sound of people gathering together*
dəgəm, v, *taste, try*
dəgəsór, adj, *strange, large*
dəglába, n.f, *field granary*

d

dā, v, *draw (water)*
dā (he), v, *lie down*
dāgə, v, *fill, stuff*
dálá, v.intr, *not exist*
dáláy, adj, *smooth (road), fluid*
dáwal, v, *spend time*
dā, v, *put, greet*

e

dək dək, ideo, *sound of pounding grain*
dólá, n.m, *jackal*, KA.
dəmbá, n.m, *large calabash*
dəmo, n.f, *sheep, ewe*
dōmo, adj, *big, great*
dəmosón, n.f, *importance, largeness*
dón, adv, *completely*
dór (he), v, *loosen*
dówi, n.m, *sales, purchases*
dówo, v, *buy*
dīē, v, *travel*
dīnar, n.f, *gold*
dítʼi, v, *pound (grain)*
do, v.tr, *take sw, send*
dó, v, *chase, drive away*
dódō, n.m, *thorn*
dōgōlō, n.f, *scaffolding, watchtower*
doktór, n.m, *doctor*, ENG.
dōmo, n.f, *hoe*
dōtē, adv, INTENS
dū, v, *walk*
dúgá, adv, *all*
dúgúlū, n.m, *thigh*
dúmū, n.m, *bull, ox*
dungú, n, *paralyzed person*, KA.
dunía, n.m, *world*

dəgwe, n.m, *large clay jar*
dəm, adv, *for a long time*
dō, v, *bring*
dugumi, adj, *long*
dúkúr dúkúr, ideo, *referring to small amounts of sth spread all around*
dýók, ideo, *expressing the longishness of sth.*

?e ?e ?e, ideo, *sound of a woman in labor*

elīō, n.f, *crawling plant* (SP)
ēman, n.m, *rainy season, year*
ēndā, n.f, *intestines*
ēngu, n.f, *excrement*
ení, n, *so and so*
ēni, n.m, *milk, sap*
eníé, n.pl, *saliva*

e

ērfu, n.m, *heart*

f

fá, v, *bury*
fā, n.f, *year*
fā, v, *bend down, cover*
fadē, n.m, *night*
fadīse, n, *dead thing, insult*, AR.
fáfádá, n.f, *fruits*
fal, v, *unwrap, untie*
fāle, n.pl, *flight*
fārha, n.f, *joy, celebration*, AR.
fasó, n.m, *air, breath*
fasó (ho), v, *unearth, dig*
fásā (ho), v, *stick to*
fáskē, n.pl, *feather(s)*
fe, adj, *(dark) red*
fé, v, *call*
fē, v, *fight, try*
féyda, n.f, *usefulness*, AR.
féyde, n.f, *sth freely received*, AR.
fō, v, *cover, change*
fōdá (ho), v, *light (a fire)*
fōdē, v, *burn, shine (of a fire)*
fōdē, n.f, *pasture*
fāl, n.f, *thorny tree* (SP)
fálá, v, *play, dance, entertain*
fān, n.m, *hut, nest*
fōne, n.f, *rib*

ensó, n.m, *foot, leg*
enjí, n.m, *bone*
ēnji, n.m, *tongue, lie*
eu, ideo, *sound of a dog howling in pain*
ēuli, n, *wedding description*
éyfu, n.f, *shame*, AR.

fōne, n.pl, *chest*
fóra, v, *surpass, abuse*
fóskā, n.f, *face*
fóskā, n.m, *billy goat*
fáskó, n, *vertex, top of head*
fí, v, *give*
fí:, v, *stink, smell bad*
fio, n.f, *smell, odor*
fio, n.m, *sorghum (rainy season)*
fio, v, *waft (of a smell)*
fitāna, n.f, *insolence, conflict*, AR.
fla, n.m, *slap*
fli, n.m, *monkey, baboon*
fō, v.tr, *run, leak*
fōfo, n.f, *natron*
fogó, adj, *all, every*
fon, ideo, *clean(ly)*
fotó, n.f, *photo*, FR.
fots'ok, ideo, *acting impolitely*
frat^li, ideo, *having sth covered with a thickish sauce*
ftar, n.m, *lion*
fité, n, *(son/daughter)-in-law*
fú, n.f, *fire, hell*
fu:, ideo, *sound of a strong wind blowing through the trees*
fyū, n.f, *line*

fyū, v, *cook by smoking*

g

ga, n.pl, *mouth*

ga, v, *finish*

gá, v, *put (a large countable quantity)*

ga., ideo, *for a strong odor*, KA.

gadé, adj, *other*, KA.

gádə, v.intr, *lack, be scarce*

gādō gə, v.prep, *be less than*

gáko, n.f, *front*

galǰimo, n.f, *camel*

gaman, n.m, *edge (or river)*

garo, interr, *how much/many?*

gárwa, n.m, *goods hauler*, KA.

gatra gatra gatra, ideo, *sound of running/chasing/fighting*

gāŋ'am, n.f, *warning*

gaw, ideo, *sound of animal landing on a branch*

gāw, n, *witch, sorcerer, traditional healer*

gáwsən, n.f, *sorcery, witchcraft*

gay, n.pl, *song*

gāy, n.m, *side of river*

gē, v.intr, *be finished*

gēre, n.pl, *agriculture, commission*

gēyfən, n.m, *room entrance*

gə, v, *say*

gəb, ideo, *sound of fist hitting s.o.*

gədə gədə, ideo, *sound of a large fire burning*

gədəbu, n.f, *antelope* (SP)

gədí, n.f, *trunk (of tree)*

gəǰi gəǰi, ideo, *sounds of celebration*

gələmbu, n, *buffalo-like animal*

gələm gələm, ideo, *sound of fire blazing*

gəlk'a, n.f, *old woman*

gəlk'ə, n.m/adj, *old (man)*

gəlk'əsən, n.m, *old age*

gəm, adv, *without speaking*

góm, adv, *even there*

gómbəl, n.f, *tree* (SP)

gōrəm, n.f, *woman, female*

górjī, n.f, *tiredness*

gōrjī, v, *be tired*

gərta gərta gərta, ideo, *sound of a chase*

gəs gəs gəs, ideo, *sound made when carrying sth heavy in the arms*

gəskār, n.m, *woven basket*

gisu, n.f, *tomorrow*

gó, n.f, *head*

góldəbó, n.f, *garbage dump*

gólənsə, n.m, *knee*

gólkábār, n.f, *grave*

gólkú, n.m, *corner*

góló, n.f, *neighborhood*

góltin, n.m, *termite hill*

gólwe, n.f, *base of neck*

gôm, n.f, *group, entourage*

gómnrū, n.m, *boyfriend, lover*

gráya, n.f, *antelope, eland*

gria gria gria, ideo, *manner of walking s.o. swh by force*

gudaw, ideo, *manner of taking sth quickly*

gúlgúsə, n.m, *dry season*

gúlgwān, n.f, *bathing place, toilet*

gúlo, n.f, *river, body of water*

gumíe, n.m, *soldier, palace guard*

gundǰá, n.f, *drum* (SP)

gúrábú, ideo, *in a quiet manner*

gúrsə, n.f, *money*

gusə gusə gusə, ideo, *sound of untying rope*

gwá, n.f, *cry, announcement*

gwálām, n.m, *eating circle*

gwats'ar, adv, *in a disorderly manner*

gwərts'ə, v, *burn, be burnt, be flayed*

gwó, v, *dry out (clothes)*

h

hábi, interj, {*expression of surprise*}

hábu, v, *sew*

háḁ, v, *scrape*

háfi, n.m, *thief*

haḁzála, n.f, *old divorced woman*, AR.

hakúma, n.f, *government*, AR.

hâl, n, *act, action*, AR.

halâl, n.f, *lawful, licit*, AR.

halâs, interj, *enough!*, AR.

hâlbô, n.m, *shoe, sandal*

hâmo, v.intr, *be wrong?*

hâne, n.f, *insult*

hâr, adv, *harshly*

hâra, n.f, *war*, AR.

hârákâ, n.f, *noise*, AR.

i

i, v, *snatch, seize*

íblísô, n.m, *satan*, AR.

?íhì, ideo, *sound of s.o. crying*

íngâ, n.m, *food*

ɕ

ɕā gə, v.prep, *risk, venture*

ɕāɕíra, n.m, *disclosure*, AR.

ɕárābu, v, *try, attempt*, AR.

ɕi, n.f, *concrete thing*

ɕi, v, *refuse, hurt, cut, trim*

k

ka, v.tr, *find*

ká, v, *stop, hold*

kábār, n.f, *grave*, AR.

kabəgá, n.f, *span, strip of cloth*, KA.

kabókó, adj, *short*, KA.

harsóm, adj/n, *unlucky, bad luck charm*, AR.

hásān, n.m, *nose*

hasára, n.f, *(commercial) loss*, AR.

hásāre, n.pl, *nostrils*

hásī, n.f, *current, speed*

haɕ'an gə, v.prep, *shake sth*

hêr, n.f, *good deed*, AR.

hey, adj, *dark red*

héysən, n.f, *theft*

hēn, v, *do, make, read*

hóngwó, n.f, *goat*

hórbū, n, *whip*, KA.?

hĩ:, interj, {*mocking expression*}

hisábu, n.m, *number*, AR.

hó, n.f, *house*

hyû, v.intr, *become skinny*

if, interj, *no!*

íya, n.f, *mom*

iyó, interj, *okay!*

iyon gə, v.prep, *take s.o.'s burden*

ɕí, v, *remain, stay*

ɕĩ:, v, *refuse*

ɕigala, v, *surpass, go beyond*

ɕígósésən, n.m, *hardness, harshness*, KA.

ɕirê, n.f, *truth*, KA.

kabórkā, n.f, *wild cucumber* (SP)

kadó, v, *follow*

kadá, adv, INTENS

kádágó, adv, *a lot*

kagə, ideo, *noise of hitting sth with a stick*

kák, ideo, *manner of holding onto sth firmly*

- kaká**, n, *ancestor*, HA.?
kákáǰ, ideo, (*finished*) *completely*
kál, adv, *exactly*, KA.
kámbe, interj, *good!*, KA.
kampôy, adv, *light (of a burden)*, KA.
kanadí, n.f, *patience*, KA.
kándán, adv, *exactly (the middle)*
kangá, n, *drum* (SP), KA.?
kangwade, n.f, *fear*
kánú, n.m, *wrestling champion*, KA.
káp káp káp, ideo, *sound of knocking on a door*
karabí, n.m, *skin (of animal)*, KA.
karágā, n.f, *woods, bush, hiding spot*, KA.
karámā, n.f, *respect*, AR.
karan gə, v.prep, *load/unload a burden onto/off of s.o.*
kārān gə, v.prep, *stretch out sth*
karú, n.m, *room*, KA.
kaságó, n.f, *sickness, cold*, KA.
kasála, n.m, *spokesman*, KA.
kāsān, n, *obligation*
kásí, n.f, *gift, package*, KA.
kasía, n.f, *circumcision/excision*, KA.
kásínô, n.m, *snake* (SP)
kasúgu, n.m, *market*, AR. via KA.
kasúmū, n.f, *clothes*, AR.?
kaf, ideo, *sound of a stick hitting an object*
kafágār, n.m, *sword*, KA.
káfámbódó, n.f, *plant* (SP)
katánā, n, *younger sibling*, KA.?
kató, n.f, *protection, saving*, KA.
kátfá, n.f, *archery competition*
kaw, n.m, *stone, rock, mountain*, KA.
kē, v, *ask*
kén, adv, *completely (filled)*
kéydā, n.m, *sickle*, KA.
ké(y)mí, n, *co-wife, rival*, KA.
keyjí, n.m, *fāt*, KA.
keywá, n.f, *sack*, KA.
kə, v, *throw, grind, crush, sting*
kə, v.tr, *accompany*
kó, v, *take*
kə (he), v, *close*
kó (ho), v, *root out, vomit*
kóbkəbu, n.f, *machete*, FR.
kóbú, adv, *peaceably*
kəkələm, adv, *in an impressive manner*
kól, v, *destroy*
kəláfia, n.f, *peace, news*, AR. via KA.
kələw, n.m, *dog*
kəm, ideo, *sound of hitting sth*
kóm, adv, *without a sound, calmly*
kəmagəní, interj, *greeting to sultan*, KA.
kəmani, n.m, *god, lord, sultan*, KA.
kəmbíó, n.m, *small basket*
kən, n.m, *bean*
kənasar, n.f, *favor, chance*, AR.
kəndógē, adv, *a lot*
kəndógē, n.f, *ceremony, meeting*, KA.
kəndéy, n.m, *small woven basket*, KA.
kəneri, n, *squirrel*, KA.
kəngem, n.m, *messenger*, KA.
kərdi, n.m, *non Muslim*, FL.?
k(ó)rəp, ideo, (*closing*) *completely*
kərkókə, adj, *heavy, slow*, KA.
kərmá, adv, *at present*, KA.
kərná, n.f, *calf (animal)*
kərta kərta, ideo, *sound of running away quickly*
kərtə kərtə, ideo, *sound of running quickly*
kəsēy, n, *father/mother-in-law*, KA.
kəskē, adj/adv, *near, easy*, KA.
kəskésən, n.m, *shortness of time*
kəʃ, ideo, *sound of hitting/piercing sth*
kíama, n, *day or reckoning, judgment*, AR.
kídā, n.f, *work*

- kinîn**, n, *pill*, FR.
kíó, n.f, *fish*
kitábu, n.f, *book*, AR.
kla, n.f, *victory*, KA.
kláma, adv, *even*
klán, adj/adv, *beautiful(ly)*
klayaská, n.f, *young girl*, KA.
kléwndāk'o, n.m, *chameleon*
kó, n, *head*
kō (ho), v, *tell, lift up*
kóḏa, n.f, *peg*, KA.
kógénásən, n.m, *roaming for sex*, KA.
kókó, n.f, *voice*, KA.
kóró, n.m, *donkey*, KA.
kósə, interj, *good evening*
kotárā, n.m, *irrigation*, KA.
- k'**
k'áfí, adj/adv, *small, few, a little*
k'áw, adv, *by oneself*
k'él, adv, *(fill) completely*
k'əb k'əb k'əb, ideo, *sound of an upset stomach*
k'əma, v, *hide*
k'əmbál, adj, *young*
k'əmbra, n.f, *monitor lizard*
k'o, adv, *still*
- l**
la, v, *hit, kill*
labār, n.m, *news, word, information*, AR.
labitān, n.f, *hospital*, FR.
lāḏa, v, *crush, pound*
lāga, n.f, *standing up*
lagó, v, *transport*
lāgə, v, *nourish*
lāke, adj, *each*
lāla, n.f, *fields*
lálálá, interj, *no*, AR.
- kotok**, ideo, *sound of a hoofed animal walking*
kóysu, n.f, *dawn*
kraptó, n.f, *curse, delirium*, KA.?
krót/krós, ideo, *(gathered) completely*
kú, n.m, *forehead*
ku: ku:, interj, *call for help*
kúmdū, n.f, *beard, chin*
kur, n.m, *round rock*
kúre, n.pl, *urine*
kúrgúli, n.m, *title of address for lion*
kurkún, n.m, *medicine*, KA./FL. ?
kúrnā, n.f, *tree* (SP)
kūro, n.m, *salt*
kutu, n.f, *stead*
kwád, ideo, *sound of scraping sth*
kwátá kwátá, adv, *completely (finished)*
- k'ō**, v, *fall*
k'ō gə, v.prep, *catch*
k'olô, n.f, *calabash*
k'ūli, v, *become angry and leave home*
k'úm k'úm, adv, *(speak) quietly*
k'ūra, v, *bend, twist*
k'wāfī, v, *be full*
k'we, v, *be dry*
- lam**, n.m, *river*
lambálsən, n.m, *stupidity*
lán, adv, *completely*
laptó, n.f, *load, burden*
lárdə, n.f, *country*
lats'e, n.f, *outside*
lawərdʒí, n.f, *rope or rubber belt used to hold pants up*
lē, v, *be good, pleasing*
lē, v, *cut*

lék'éw lék'éw, *ideo, describes manner of walking softly*

lēy, n.m, *spear*

ley ga, v, *crunch*

(lə)gəma, v, *bump, knock against*

ləgwəʃe, n.f, *girlfriend*

ləp, *ideo, sound of sth big hitting the ground*

líbra, n.f, *needle, AR.*

libū, n.f, *pocket, KA.*

m

mā, n.f, *woman*

madare, n.pl, *crotch (of tree)*

mādā, v, *die*

madí, n.f, *death, mourning*

madā, n.f, *trickery, deception*

mádš, adv, *for nothing*

mādcə, v, *shave*

māčʒi, adj, *left (hand)*

māgwāyā, n.m, *boundary, frontier*

mákə, n.f, *week*

maləm, n.m, *Koranic teacher, AR.*

maləmsən, n.m, *Koran teaching*

mam, n.f, *bee, swarm, honey*

man gə (yo), v.prep, *leave (alone)*

mangali, n.m, *field ant*

mangə, n.m, *ceiling*

mangəla, n.m, *hoof kick*

māni, n.f, *woman of*

mánkuli, n.m, *long wool cap*

mansón, n.f, *chieftaincy, power*

mapú, n, *blind person, KA.?*

marangábí, n.f, *princess, KA.?*

marbét, *ideo, productive, KA.?*

mare, n.f, *tree (SP)*

marge, n.f, *ring*

márčibu, n.f, *evening*

mārk'we, n.m, *bran*

liḡə, n, *crocodile*

limân, n.m, *imam, AR.*

ló, n, *child*

lök'o, n.f, *burr*

lówó, n.f, *clay jar*

lū, v, *come*

lūdcə, n.f, *yesterday*

lugu, n.m, *gandura*

luk'urân, n.f, *Koran*

māsar, n.f, *corn*

masəlk'a, n.m, *bowlegged person*

máskádíó, n.f, *slide, slip*

māʃi, n.m, *hyena*

māʃu, n.f, *jaw, cheek, mouthful*

mátálú, n.f, *bag*

matakwán, n, *salt (SP)*

mats'efū, n.f, *ant (SP)*

mawásən, n.m, *journey, trip*

māwda, n, *monster*

māwru, n, *guest, stranger*

māyo, n.m/pl, *owner(s) of*

mḡalá, n.m, *open plot of land*

mḡəl, n.m, *root, muscle*

mḡi, n.m, *oil*

mḡi, n.f, *flour*

mdal, n.m, *waterhole, marsh, pool*

mdəgə, n.f, *rear end*

mdúgúsū, n.f, *buttock*

mēgə, n.pl, *people*

mesele, n.m, *stork*

mēy, n.pl, *people of*

mēydân, n.pl, *parents*

méyna, n.m, *prince, KA.*

méyti, n, *corpse, AR.*

mēywe, n.pl, *men, males*

meywésən, n.m, *virility, genitals*

məla, n.f, *happiness, flavor*

mālk'ən gə, v.prep, *attach to*
mən gə, v.prep, *stop at*
mónók, ideo, *quietly*
məni, n.m, *orifice, anus*
mərádə, n.f, *will, problem, AR.*
mərət, ideo, *sound of a cord breaking*
mésólám, n, *Muslim*
məskîn, n, *poor, simple person*
mfo, n.f, *rainy season millet*
mĩ:, v, *insult?*
midan, n.m, *stirring stick*
mímí, n.f, *place where a baby is carried on the back*
míó, n.f, *knife*
mizân, n.m, *measurment, microscope, AR.?*
mk'weyó, n, *shell, mussel*
mōso, n.m, *impala/waterbuck*
msále, n.m, *debt*

mb

mbálā, n.f, *arm*
mban, v, *bathe*
mbariā, n.f, *warning, AR.*
mbələm, n.f, *turn*
mbórsē, n.f, *trust, confidence, KA.*

n

na, adv, *now*
nābi, n.m, *prophet, AR.*
nadí, adv, *on purpose, KA.*
nāən, v, *be not yet*
náfār, n.f, *clan, tribe, type, AR.*
nakôn, n.m, *seed (SP)*
nakyá, n.f, *dessert (SP), KA.?*
nāme, n.pl, *rope, bowstring*
namí, n.f, *gossip, AR.*
nasará, n.m, *white man, AR.*
náskū, n.f, *soul, spirit, AR.*

msāwā, n.m, *heron*
msōgə, n.m, *hair*
msəlwo, n, *rabbit*
msī, n.m, *man of*
msuli, n.m, *restraining peg*
msûn, n, *begging, KA.?*
mĵār, n.m, *axe*
mts'afú, n.f, *tail*
mts'al, n, *jump*
mts'i, n.m, *vine*
mts'î, n.f, *wind, craziness*
mts'úgúríó, n.f, *tuft, lock (of hair)*
mudán, n, *cannibal*
muftafí, n.m, *liar, AR.*
mukálafu, n.m, *young man, AR.*
múli, n.f, *horse stable, KA.*
murú, n.f, *fish (SP)*

mbîn, v.intr, *be good*
mblîn, adj/adv, *new, newly, KA.*
mbóló, n.m, *stool*
mbu, n.f, *(hoe) handle*

nehísə, adj, *obstinate, AR.*
nóbā, n.f, *luck*
nōm, n.f, *string*
nōm, v, *milk (cow)*
nōm, v, *braid, weave*
nəmân, n.f, *money*
nəmdə, n.f, *ashes*
nóngúdí, n.f, *poverty, KA.*
nésəbu, n.f, *half, AR.*
nóts'ə, v, *chop up*
nía, adv, *INTENS*
nía, n.f, *decision, will, AR.*

nikâ, n.m, *marriage*, AR.
nimířiri, n.f, *piece of paper*, AR.
níni, adv, *very (crafty)*
ndžimé, n.f, *question, talk*
ndžírū, n.f, *insult* (SP)
nk'ân, n.m, *ingernail, claw*
nk'âm, n, *handful*, KA.
nk'urdađi, n.m, *warrior*

nd

nda, v, *see*

ng

ngâ, adj, *healthy, whole*, KA.
ngá (he), v, *break*
ngaba, adj, *white*
ngál (ho), v, *measure*
ngálkō, adj, *better*, KA.
ngámde, adj, *hard*, KA.
ngamsi, adj, *red, brown*
ngábbē, n.m, *deception*
ngálmó, n, *tree* (SP)
ngánōbu, n.f, *suffering*, KA.
ngərma, n, *fast horse*, KA.
ngōsk'o, adj, *last*
ngō, n.f, *place*

o

órga, interj, *welcoming expression*

p

páran, adj, *wide*, KA.
parmasîn, n.f, *pharmacy, hospital*, FR.
pédēm, adj, *far*
pét, ideo, *very (black)*, KA.
piát, ideo, *quickly (removing sth)*, KA.
pílā, n.f, *silver*, KA.

nk'wálé, n.m, *fruit* (SP)
nondó, adv, *in this way*
nówó, n.f, *finger*
(n)sán, n.pl, *sleep*
nyi, n.f, *thing (abstract)*
nyim, adv, *quickly (leaving)*
nzónā, n.f, *adultery, fornication*, AR.

ngođji, n.m, *curdled milk*, KA.
ngri, n.f, *gazelle*
ngula, n.f, *crown (of head)*
ngúrdá, n, *syphilis, STD, handicapped person*
ngúrdúkí, n, *paralyzed person*, KA.
ngúréy, n, *newborn*
ngúrzām, n/adj, *adult, grown (person)*, KA.
ngwār, n.f, *female slave*
ngwāru, n.m, *male slave*
ngwáfé, n.f, *traditional wrestling*, KA.?
ngwən, n.f, *stomach, inside*
ngwər, n.m, *growl*, KA.
ngwí, n, *deaf, deaf-mute*

pít, ideo, *very (red)*, KA.
plá, n.f, *butter*, KA.
pó, v, *prepare food, boil*
pók, ideo, *very (white)*, KA.
puf, ideo, *sound of explosion*
púlút, ideo, *sound of sth going into a tight hole*

r

rapâ, n.m, *mother's younger brother, mother's husband*, KA.

rəbətá, n.f, *writing*, KA.

s

sā, v, *sit*

saʔábu, n.f, *reconciliation*, AR.

sabâ, n, *friend*

sábō gə, v.prep, *wait for*

sābər, n.f, *trade, commerce*

ságá, n.f, *weaving*, KA.

sāgālē, interj, *welcome!, thank you*

sāge, n.m, *lake*

ságó, n.f, *village*

ságō, v, *pick up (several individual items)*

sāgwá, n.f, *hat*

saka, n.f, *time*

sála, n.f, *prayer*

sam, n.f, *hunt*

sam, n.m, *ram*

sam, v, *love*

sám, v, *feel, palpate*

samasân, v, *be afraid*

sámē, n.f, *sky*, AR.

samwê, n, *farewell, advice*

sanê, n.f, *cloth worn by a woman*, HA.?

sāni, v, *resemble*, KA.?

sará, n.m, *flock, farm*, AR.

sarakí, adv, *perhaps*

sarbédə, n.f, *towel*, FR.

sare, n.f, *thread*

sare, n.m, *cotton*

sārga, n.f, *sacrifice*, AR.

saríl, n.f, *bed*, AR.

sársár, adj, *thin*

sāw, n.f, *stick, cane*

sawe, n.m, *village walls*

róm, adv, *completely (eaten)*

rəp, ideo, *sound of s.o. falling*

rət/rəd, ideo, *manner of cutting sth cleanly*

sē, v, *drink*

sē, v, *cook*

sebê, n, *granary*, AR.

séló, n.f, *bird*

séró, n.f, *dirt*

seygâ, v, *be quiet*

só, n.f, *day, sun, eye*,

sógólā, n.m, *ostrich*

sólák, ideo, *quietly*

sólbó, n.f, *hairpin*

sólóm, adj, *black*

sólgā, n.f, *star*

sōm, v, *eat, plunder, conquer*

səmón, n.m, *food*

sómó, n.f, *thorn tree* (SP)

són, v, *know*

sónók, ideo, *closing sth up tight*

sór, adv, *very (hard)*, KA.

sərén, n, *knowledge, wisdom*

sórin, adv, *in silence*

sórká, adj, *big*

sórká, n.f, *latrine, toilet*

səryó, n.f, *mortar, pounding pot*

sósófú, adv, *badly (of an odor)*

sətá, n.m, *leopard*

sówi, n.m, *snack*

si, n.m, *body*

sí, n.f, *tree*

sí, v, *pull*

sī, v, *take*

siása, n.f, *democracy, reconciliation*, AR.

sífā, n.m, *quality*, AR.

síngámdə, n, *dunce*

síó, n.f, *shadow, shelter*
sísu, n.m, *dawn, daybreak, first light*, AR.
sítán, n.m, *demon, evil spirit*, AR.
sítā, n.f, *funeral (at occasion of death)*, AR.
(s)ká (yo), v, *suffer*
skāgā, n.f, *traditional bed, step*
skām, adv, INTENS
(s)kányo, n.m, *trouble, difficulty*
(s)ke, v, *ask*
skəm, n.f, *hunger*
skón, n.m, *dry land*
skí, n.m, *blood*
skó, n.f, *cooking pot*
skó, n.m, *field*
skú, n.f, *waist, hip*
skū, v, *chase*

ʃ

ʃá, n, *cow*
ʃá, v, *place (a large countable quantity)*
ʃábu, v, *wash*
ʃáḍá, v, *pick, pluck (fruit)*
ʃáfū, n.m, *grass, weeds*
ʃák'āla, n.f, *hardship, distress*, AR.
ʃán, n.f, *tooth, hook*
ʃár, v, *repair, prepare*
ʃare, n.f, *corner, storage space*
ʃārgū, n.f, *sickness, illness*
ʃarīā, n.f, *Islamic law, judgment*, AR.
ʃártə, n.m, *time*, AR.
ʃáwa, n.m, *eunuch?*, ?
ʃawāri, n.m, *dialogue*, AR.
ʃé, n.m, *hand*

t

tá (ho), v, *touch*
ta ta ta, ideo, *(running) quickly*
táb, ideo, *action of catching s.o.*

skwi, n.m, *fly*
só, v, *enter*
sō, v, *mount*
só(bō)bu, n.f, *curse*, KA.?
sótā, n.f, *welcoming meal*, KA.
subána, n.f, *curse*, AR.
súgúrām, n.m, *key*, KA.
súguré, n.f, *hump (of cow)*, KA.?
súl, adv, *completely (empty)*
sundúgu, n.m, *crate*, AR.
sūre, n.m, *madness*
swē, v, *cry, blow*
swō, n, *Chadian Arabic*
syán, adv, *quietly*
syū, n.f, *iron, head of arrow*, KA.

ʃē, v, *speak (a language), cut*

ʃē, v.intr, *melt*

ʃéko, n.m, *sheik*, AR.?

ʃēw, v, *dig*

ʃórək, adj, *verdant*

ʃ(ə)wákā, v, *quarrel, fight*, AR.

ʃí, v, *put (of a non-countable quantity)*

ʃim, v, *be equal, flat*

ʃimé, adj/adv, *little, later*

ʃimésən, n.m, *youth*

ʃimū, n.m, *ear*

ʃimū, n.m, *name*

ʃin gə, v.prep, *hear, feel*

ʃóra, n.m, *solution*, AR.

ʃú, n.m, *meat, flesh*

tabógā, n.f, *understanding*, AR.

tábú, adj, *young*

tāḍə, v, *plant (sth)*

tāḍa, v, *widen*

- tádǎ**, n.f, *awareness*, KA.
tádi, n.f, *worm*
táfǎ, v, *spit*, KA.
táǵǎ, v, *eat*
tagósǎ, n.f, *obstacle*, KA.
táhir, adj, *pure*, AR.
ták, ideo, *completely*
tāk'u, v, *crush (sth fresh)*
tál, v, *come*, S.A.
tám, adv, *quickly*
tám (he), v, *search (in the dark)*
tamá, n.f, *hope*, KA.
tambalí, n.m, *cotton seed*, KA.
tamtamtǎ, n.f, *trickery, deception*, KA.?
taráy, adv, *immediately, right away*, KA.
tárbǎ, n, *road*, AR.?
tárgǐ, n.f, *necklace*
tartǐbu, n.m, *plan, arrangement*, AR.
tás, ideo, *(sitting) comfortably*
tásǎ, n.f, *bowl*, AR.
tāsǎ, n.f, *louse*, ?
táj, ideo, *sound of sth being hit*
táwá, n.f, *dirty trick*
tédǎ, n.m, *moon, month*
tél, ideo, *very (bright (of light))*
ter, adv, *extremely*
- ts'**
ts'a, v, *cut*
ts'ǎ, prep, *alone*
ts'ǎga, v, *get up*
ts'ǎgǎ, prep.intr, *alone*
ts'ǎle, n.m, *strength*
- tǐ**
tǐbǎd, ideo, *describes sth completely hidden*
tǐbǎk, ideo, *describes sth wet*
- téy**, adj, *generous, kind*
tǎ, v, *return*
tǎbǎr, adj, *thick (of a liquid)*
tǎk, ideo, *sound of sth heavy falling from up high*
tǎl, ideo, *sound of sth hitting the ground*
tǎlǎk tǎlǎk, ideo, *manner of walking nonchalantly*
tǎlǎn, adj, *dark*
tǎlǎk tǎlǎk, ideo, *sound of dripping water*
tǎm, ideo, *laid out flat*
tǎmbǎl, ideo, *a lot*
tǎn, n.m, *ground*
tǎngǎr, adv, *publicly, out in the open*
tǎp tǎp, ideo, *doing sth completely*
tǎrǎm, adv, *a lot*
tǎskǎn, n, *lazy, weak, slow*
tǎtǎk, ideo, *noise of hitting sth*
ti, adv, INTENS
tǎǎ, n.f, *olden times*
tǎkǎ, n, *brother/sister-in-law*
tofo, n.m, *sweat*
tǎlu, n.m, *road*
tra, v, *search thoroughly*
twa, ideo, *sounds of spitting sth out of the mouth*
- ts'am**, v, *agree, accept*
ts'ar (ho), v, *collect*
ts'e, n.m, *outside*
ts'ey, v, *tighten, squeeze*
ts'wa, v, *twist*
- tǎǎf**, ideo, *sound of something landing on a leafy branch*
tǎǎbla, n.f, *cardinal point*, AR.
tǎǎlǎn, adj, *deep*

ʃííí, ideo, *describes a large quantity of sth*
ʃíp, ideo, *sound of sth being hit on the head*
ʃof, ideo, *sound of diving in to water*
ʃof ʃof, ideo, *sound of huts being lit on fire*

ʃ'
ʃ'ā, v, *laugh*

u
u:, ideo, *noise of animate things in movement*

w
wa, n.pl, *concrete thing*
wáʔāde, n.m, *trust, confidence, AR.*
wab, ideo, *quickly*
wágó, adj, *high, tall*
wahíe, n.pl, *cereal, grain*
wakítā, n.f, *letter, AR.*
wālè, v.intr, *be difficult, expensive, hurt (intr.)*
wan, n.m, *clay*
wánke, adv, *perhaps, KA.*
wánti, interj, *greeting for an important man from a woman*
wárátā, n.f, *inheritance, AR.*

y
yá, n.f, *mother*
yā, v.tr, *become*
yá gə, v.prep, *want, need, look for*
yágátó, n.f, *whining, crying, KA.*
yahe, adv, *even*
yáiyò, interj, *expression of sympathy*
yála, v.imp/interj, *go!, AR.*

z
zaga, n, *part of fishing net*
zamán, n.f, *time period, AR.*
zár, adv, *always, usually, KA.?*

ʃ'ófóy, ideo, *describes poorly groomed hair*
ʃ'ók, ideo, *sound produced to signal a dog to hunt something*
ʃ'ókóy, ideo, *describes a bad situation*

ʃ'ámo, adv, *slowly, softly*
ʃ'ano, adj, *unripe, fresh, wet*

ūda, n.f, *village limits*
use, n.f, *food*

wási, n.m, *advice, story, AR.*
watógasə, n, *morning, KA.*
we, n.m, *neck*
wē, v, *give birth to*
wələm, n.m, *(vertical) hole, put*
wi, n.m, *husband*
wi, v.intr, *be lost*
wīē, n.m, *journey, trip*
wilá, n.m, *branch (of tree)*
wógó, n.m, *quarrel, disagreement*
wom, n, *canoe*
wútrām, n.m, *mirror, KA.*

yáman, adv, *until, AR.*
yangəná, n.f, *younger sister of mother, KA.*
yankê, n.m, *trousers, KA.*
yayá, n, *elder sibling, KA./HA.?*
yeríma, n.m, *son of sultan, prince, KA.*
yígó, adv, *only*
yô, adv, *already*
yowá, interj, *alright, okay, KA.*

zóbú, adv, *deep*
zərká, n.f, *addition, supplement, AR.?*
zolí, adj, *crazy, mad, KA.*
zóngō, n.m, *temporary jail, HA.?*

zumbú, n.m, *fist*, KA.

zuría, n.f, *descendants*, AR.

Appendix C: Pronominal forms

I provide summary charts of the pronominal forms of Makary Kotoko in this appendix as a quick reference tool. I include the subject markers, though strictly speaking these are not pronominal in nature. I present, in turn, the following paradigms: (i) subject markers (with aspect/mode coding), (ii) independent pronouns, (iii), direct object pronouns, (iv) indirect object pronouns, (v) prepositional pronouns, and (vi) possessive pronouns/determiners. Makary Kotoko distinguishes gender for the second person singular for all paradigms except the subject markers.

(i) Subject markers with aspect/mode marking

	Subject	CMPL	INCMPL	IRR	VOL	PROH	NEUT
Person		-ō	ndá-	m'-	yá(g)-	tá-	∅
1SG	w	wō	ndáw	mú	yáw	táw	u
2SG	g	gō	ndág	móg	yág	tág	gə
3SG:M	a	ā	nda	má	yága	tá	a
3SG:F	l	nō	ndál	mól	yál	tál	əl
1PL:INCL	m	mō	ndám	ím	yám	tám	m
1PL:EXCL	ne	nē	ndáne	móne	yáne	táne	ne
2PL	we	wē	ndáwe	mówe	yágwe	táwe	we
3PL	y	(y)ē	ndáy	mí	yáy	táy	i

Note for the independent pronouns that four of the forms are realized with H tone (2SG:M, 2SG:F, 3SG:F, 3PL). The remaining five have L tone.

(ii) Independent pronouns

Person	Independent pronoun
1SG	don
2SG:M	kón
2SG:F	tó
3SG:M	dan

Person	Independent pronoun
3SG:F	dó
1PL:INCL	mo
1PL:EXCL	ne
2PL	wre
3PL	dén

Note for the direct object pronouns, as for the independent pronouns above, that four of the forms have underlying H tone (2SG:M, 2SG:F, 3SG:F, 3PL). The remaining five have L tone. Surface tones vary based on the tone of the preceding verb. The four H toned pronouns are realized H after a L or H tone verb. They are realized F (H going to L) after a M tone verb. The other five pronouns remain L regardless of the tone of the verb.

(iii) Direct object pronouns

Person	Direct object pronoun
1SG	n
2SG:M	kón
2SG:F	tó
3SG:M	rə
3SG:F	dó
1PL:INCL	mo
1PL:EXCL	ne
2PL	re
3PL	dán

The indirect object pronouns have the same segmental form as the direct object pronouns. They are distinguished from the direct object pronouns by their tonal behavior and their relative position (when both occur) since the indirect object pronoun always precedes the direct object pronoun. The indirect object pronouns have underlying L tone for all persons. Surface tones vary based on the tone of the

preceding verb. The indirect object is L following L and M tone verbs, and is M following H tone verbs.

(iv) Indirect object pronouns

Person	Indirect object pronoun
1SG	n
2SG:M	kən
2SG:F	to
3SG:M	rə
3SG:F	də
1PL:INCL	mo
1PL:EXCL	ne
2PL	re
3PL	dan

Following the prepositions *gó* ‘with’ and *ts’á* ‘alone’, the pronouns used have the segmental shape of the direct/indirect object pronouns and are all realized with M tone.

If a pronominal form follows the preposition *gə*, the two forms are fused together in idiosyncratic ways for certain persons. Note in particular the 2SG and 2PL forms.

(v) Prepositional pronouns

Person	Prepositional pronoun
1SG	gu
2SG:M	ngó
2SG:F	ín
3SG:M	gən
3SG:F	gədə
1PL:INCL	gəmo
1PL:EXCL	gəne
2PL	ín
3PL	gədan

The possessive pronoun/determiner forms are similar in shape to the prepositional pronoun forms. This is because the preposition *gə* is a component part of the possessive pronoun/determiner forms. It codes possession in these forms. I present the possessive determiner forms first. These are composed of three parts: (i) the modifying marker (*n* (MOD:M/PL), *ro* (MOD:F)), (ii) the possessive marker *gə*, and (iii) the person/gender/number marker of the possessor.

(vi.a) Possessive determiners

Person	Possessive determiner (M/PL)	Possessive determiner (F)
1SG	ngu	rogu
2SG:M	ngó	rongó
2SG:F	ín	róm
3SG:M	ngən	rogən
3SG:F	ngádə	rogádə
1PL:INCL	ngəmo	rogəmo
1PL:EXCL	ngəne	rogəne
2PL	ń	rón
3PL	ngódan	rogódan

The possessive pronoun forms are identical to the determiner forms except that the modifying markers are replaced by the pronominal forms: *en* (3SG:M/3PL) and *no* (3SG:F).

(vi.b) Possessive pronouns

Person	Possessive pronoun (M/PL)	Possessive pronoun (F)
1SG	engu	nogu
2SG:M	engó	nongó
2SG:F	ém	nóm
3SG:M	engən	nogən
3SG:F	engódə	nogódə
1PL:INCL	engámo	nogámo
1PL:EXCL	engóne	nogóne
2PL	eń	nón
3PL	engódan	nogódan