

Aspects of Nungvrama Grammar

A functional-typological approach based on data from three varieties (Deeləmə, Gvyvma and Gwaandama)

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iv. Abbreviations

A	NF class <i>-A</i>	NEG	negation marker
AGR	subject agreement marker	NF	nominal form (class)
ASP	aspect marker	NOM	nominal predicate
ATR	advanced tongue root	NPST	non-past
AUX	auxiliary	NUM	numeral marker
B	NF class <i>-b</i>	OBJ	object pronoun
C	consonant	ORD	ordinal numeral
CAUS	causative verb extension	PST	past
CF	clause final marker	PL / pl	plural
COM	comitative	PLU	pluractional verb extension
COMPL	complementiser	POSS	possessive pronoun
CON	connector	PP	postposition
COORD	coordinating conjunction	PRG	progressive
COP	copula	PROG	progressive verbal particle
CPL	completive	Ps	Psalms (book in the bible)
DEF	definite marker	R	NF class <i>-r</i>
DEM	demonstrative proform	R	recipient-like argument
DISJ	disjunctive conjunction	REF	referential marker
EXCL	exclusive	REL	relative marker
F	NF class <i>-A</i>	RLT	relational verb extension
FUT	future	Sam	Samuel (book in the bible)
FV / FV	verb final vowel	SBJ	subject pronoun
Gal	Galatians (book in the bible)	SG / sg	singular
GEN	genitive marker	so.	someone
Gen	Genesis (book in the bible)	SPAT	spatial preposition
HA	NF class <i>-hA</i>	SR	strict relative verbal particle
Hab	Habakkuk (book in the bible)	STAMP	subject, tense, aspect, mood, polarity
IMP	imperfective	sth.	something
INCL	inclusive	T	theme argument
INST	instrumental preposition	TA	NF class <i>-tA</i>
INT	interrogative marker	TAM	tense, aspect, mode
KA	NF class <i>-kA</i>	TBU	tone-bearing unit
L	NF class <i>-l</i>	V	verb (root); vowel
lit.	literally	VEN	ventive verbal particle
Lk	Luke (book in the bible)	W	NF class <i>-w</i>
M	NF class <i>-m</i>	Y	NF class <i>-y</i>
Mk	Mark (book in the bible)	1	first person
N	nasal that occurs in some clauses with adjectival and possessive predicates	2	second person
		3	third person
		?	unknown/unclear

1. Introduction

1.1 Aim and structure of the thesis

Nɔngvrama/Longuda is a language cluster spoken in the northeast of Nigeria in Adamawa and Gombe State. It comprises five different varieties or dialects. Three out of the five varieties, namely Deeləmə, Gvɔvɔma and Gwaandama, are the focus of this polylectal grammar (as described in §1.4).

This thesis aims to document and describe the most salient linguistic structures, with a particular focus on the field of morphosyntax, in a comparative manner in order to acknowledge the existence of language variation. This comparative study further has the objective of contributing to the descriptions of African languages, in particular those referred to as ‘Adamawa’ and ‘Benue-Volta’ languages. This will facilitate typological and comparative research, historical reconstructions¹ and any further work on Nɔngvrama. This description may also contribute to the revision of the orthography, which, according to the speakers of the language with whom I worked, is challenging to read. This is, at least in part, due to the absence of crucial information, such as tone and vowel harmony.

The thesis is comprised of seven chapters. Chapter 1, including this subsection, serves as an introductory overview of the language, encompassing its varieties and their respective speakers, as well as providing insight into the classification of the language cluster and the sociolinguistic context. Furthermore, it provides an overview of the data used in this thesis and the theoretical framework upon which this language description is based. Chapter 2 is a phonological sketch of the varieties, which is an important foundation for comprehending and interpreting the examples presented throughout the thesis. The parts-of-speech classes identified in Nɔngvrama are presented in Chapter 3. Chapter 4 presents the deriflection and gender of nouns, while Chapter 5 gives an overview of noun phrases. Chapter 6 is dedicated to the description of tense, aspect, modality and negation. The various clause types that occur in Nɔngvrama are presented in Chapter 7.

¹ Compare Güldemann (2018a: 204) in this regard: “While the first part of Boyd’s (1988b: 236) following statement may no longer apply, its second part has not lost anything of its relevance after more than 25 years of additional research: ‘Les possibilités de comparaison au niveau général dans la sous-branche Adamawa (sans compter encore avec les langues oubangiennes) sont si limitées qu’on voit plus d’intérêt actuellement à concentrer les efforts de reconstruction sur des groupes individuels ou sur les sous-ensembles principaux’ [The possibilities for comparison on a general level in the Adamawa subbranch (even without including the Ubangi languages) are so limited that it currently appears to be of greater interest to concentrate efforts toward reconstruction on individual groups [sic!] or the principal subgroups]” (English translation by Güldemann).

1.2 The language and its speakers

1.2.1 Nvngvrama and its varieties

This chapter provides an overview of the language Nvngvrama and its varieties, as well as an account of its usage and the influence of other languages on it.

*Nvngvrama*² is the endonym of the language. The suffix *-ma* (cf. §4.2.13) indicates that the term Nvngvrama refers to a language, while the suffixes *-ya* and *-ba* mark the singular and plural of one person or more than one, respectively (cf. §4.2.3 and 4.2.6). Consequently, *Nvngvrama* is the term used to refer to the language, *Nvngvraya* to a Nvngvra person and *Nvngvraba* to Nvngvra people. Nvngvrama is typically regarded as the endonym term, whereas Kleinewillinghöfer (1996a: 85, 2014b) states that the Kɔlaba, who speak one of the other two varieties, refer to themselves as *Longura(-ba)*. A similar lexeme, namely *Longuda* or *Lunguda* (cf. §2.1.1.1 for the allomorphs [d] and [r]), is used as an exonym for both the language and the people. The former is the more commonly used term in scientific literature, while the latter is employed in other contexts in Nigeria, such as the news.³

The precise number of Nvngvra speakers is difficult to determine. Meek (1931: 332) identifies 7,288 Nvngvraba in the north and 2,360 in the south⁴. These figures correspond to the administrative division of the region into two districts at the time. The Handbook of African Languages (cited in Jungraithmayr 1968/1969: 173) reports a total of 11,809 speakers, while Newman and Newman (1977a: 9) report 34,000⁵ people, a number that is based on the 1971 census. The most recent data stems from the PeopleGroups database (International Mission Board 2024) and the Joshua Project (2023), which estimate the current population to be 108,000 and 110,000, respectively. The sources underlying these estimates are not clarified. It is unlikely that the most recent census in 2006 is the source of this data, as it only provides age distribution data for Local Government Areas and not for ethnic groups.⁶ However, given Nigeria's population growth, with an annual increase of more than 2% in recent years (World Bank Group 2024, United Nations Statistic Division 2024), it can be assumed that the number of Nvngvraba has also increased (cf. Brunk 1994). This assumption is consistent with the various numbers presented above and is also corroborated by my language assistants.

Nvngvrama is a Niger-Congo language. However, its exact placement in the family tree remains unclear. Based on lexical evidence, Nvngvrama has been proposed to be an 'Adamawa' language (c.f. e.g. Greenberg 1949: 89, Blench 2004), a controversially

² Since tones differ for language terms and speakers in the different varieties (e.g. [ˈnʊŋɡʊrámà] in Deeləmə, but [ˈnʊŋɡʊrámá] in Gvɥvɔm), they are omitted here and throughout this thesis.

³ In folk etymology, the meaning of *Nvngvra* is described as “people that stay close to each other” (Abdullahi 2018) or “descendants of their patriarch whose name was Nungur” (Dunnamah et al. 2016: 42).

⁴ This probably excludes the people from the towns Dele (i.e. Jessu), Gwaanda (i.e. Nyuwar) and Wala (Meek 1931: 331).

⁵ Divided by speakers of the five varieties (as described below): 14,005 Cerība, 10,515 Gvɥvɔbɔ, 5,572 Kɔlaba, 2,630 Deeləbɔ and 1,500 Gwaandaba.

⁶ <https://web.archive.org/web/20170120201645/http://www.population.gov.ng/images/Priority%20table%20Vol%204.pdf> [accessed 2024-06-21].

discussed term (Kleinewillinghöfer 2019b: 193, footnote 1, 2024: 5). Güldemann (2018b: 200) describes ‘Adamawa’ as a “highly diverse genealogical pool of Niger-Congo”, not a distinct branch as such. It is placed in single inverted commas in this thesis to indicate its questionable status as a genealogical term. The term ‘Adamawa’ should thus be understood as a provisional cover term for languages that have yet to be (genetically) classified more precisely. ‘Adamawa’ was also suggested to have possible links to an Eastern Niger-Congo branch, also called Ubangi (cf. Greenberg 1949: 89, footnote 5, 1963: 9, Samarin 1971: 225). Another subbranch of Niger-Congo, namely Gur, is thought to form a continuum with ‘Adamawa’ or ‘Adamawa-Ubangi’ (Köhler 1975: 197, Bennett/Sterk 1977: 249, Bennett 1983, cf. Kleinewillinghöfer 2019b: 193). The prevailing opinion today is that Ubangi should be regarded as separate from Adamawa, as “no study ever backed Greenberg’s Adamawa-Ubangi” (Kleinewillinghöfer 2020: 221, cf. Güldemann 2018b: 200).⁷ Kleinewillinghöfer (2024: 5) proposes an alternative classification that includes the Gur languages and the (previously regarded) ‘Adamawa’ groups Samba-Duru, Tula-Waja, Nungvrama/Longuda, Bəna-Mboi and possibly Bua, all of which exhibit noun class morphology. His proposed cover term is ‘Benue-Volta’. His classification is based on morphology, while previous classifications of ‘Adamawa’ and ‘Adamawa-Ubangi’ were lexically defined.

No classification is suggested in this thesis. It also remains to be seen which language or language group may be closest to Nungvrama. Instances where similarities with languages spoken in its vicinity can be observed, are occasionally mentioned in the respective chapters. However, whether these are genealogical or areal, contact-induced features are not the topic of this thesis. As these languages, in particular Tula, Waja, Baa, Kam and Kyak, are predominantly considered in the literature to belong to the ‘Adamawa’ group, they are also referred to as such in this thesis.⁸

Nungvrama is considered to be a ‘dialect cluster’ (e.g. Westermann/Bryan 1970: 111, Bennett 1983: 35, Kleinewillinghöfer 2014b, Güldemann 2018b: 205) or a ‘dialect group’ (e.g. Kleinewillinghöfer 1996a: 86, 1996b: 37, 1996c: 113). In this thesis, the term ‘variety’ is employed in lieu of ‘dialect’ in order to maintain objectivity and to avoid the linguistically untenable distinction between the terms ‘language’ and ‘dialect’ (Kastenholz 2002: 58, footnote 6, cf. Löffler 1990: 1ff., Chambers/Trudgill 2009: 4f.). The varieties of Nungvrama are understood here as diatopic varieties, which are based on patterns that can be explained by the concepts of ‘space’ and ‘geography’ (Auer 2013: 270, cf. Löffler 1990: 7f.).

The Nungvrama perceive themselves as speaking five distinct varieties. This five-fold subdivision is part of the common self-perception of my language consultants. It is confirmed in a comparative dialect survey by Newman and Newman (1977a: 5) and in other publications (e.g. Sabe 1995: 7, Kleinewillinghöfer 2014b) as well as comparative wordlists collected by Kleinewillinghöfer (cf. §1.3.3). The earlier two-fold division into ‘Hill Longuda’ and ‘Plain Longuda’ distinguished by Meek (1931) is based on

⁷ However, until today, the Ethnologue (Eberhard et al. 2024) remains the exception where Adamawa-Ubangi is still listed as a subbranch.

⁸ But see Lesage (2019) on the position of Kam in Niger-Congo.

geographical and historical aspects, rather than linguistic ones. Three of the five varieties, namely Deeləmə, Kəlama and Gwaandama, can be subsumed under Meek's 'Hill Longuda', while the other two, Gvyvma and Cerīma, constitute 'Plain Longuda' (Newman/Newman 1977a: 25). Despite the division into five varieties, the people share common cultural practices, as described, for example, in Meek (1931), Panyi Bairah (1987), Vanden Berg (1999, 2005), Abdullahi (2018) and Dunnamah et al. (2016).

The following section will introduce the five varieties in alphabetical order.

Cerīma is the most spoken variety of Nvngvrama. It is spoken south of the town of Guyuk. According to folk etymology, they are the 'separated people' or 'the ones who deviated from the path' as they took a different route from Waanda (the place from which the Nvngvraba dispersed, cf. §1.2.3) than the rest of the Nvngvraba.

Deeləmə⁹ is spoken in the southwestern region of Dumna Hill and in the southeastern region of Nyuwar in both Adamawa and Gombe States. The main town is Jessu (also known as Dele) in Adamawa State. The origin of the Deeləbə is uncertain. According to Newman and Newman (1977a: 6), two theories have been proposed to explain their origins. One suggests that they separated from the Tarima-speaking¹⁰ Nvngvraba, while the other proposes that they migrated directly from Waanda over the mountains into their present-day territory. Their neighbours are the Bacama and the Cham people.

Gvyvma is a variety spoken in the northeast of the Nvngvrama language area, primarily in the town Guyuk, as well as the surrounding towns and villages in the plains.¹¹ Since the mid-19th century, the Gvyvba have been in contact with the Chadic-speaking Dera (West Chadic, Afroasiatic) in the Gongola basin (Newman/Newman 1977a: 5).

Gwaandama¹² is primarily spoken by the residents of Nyuwar¹³, a town situated in the southwestern part of the Nvngvra area, which encompasses the southern part of Gombe State. The Gwaandaba are the smallest group of the Nvngvra people. According to [B-N1]¹⁴, they were originally part of the Gvyvba until their leader discovered a fertile valley in the southwest and founded a town there. The Gwaandaba have a close relationship with

⁹ Pronounced as [de:ləmə], but also as [de:leme], e.g. in the variety Gvyvma. Nvngvrama does not have long vowels (except across morpheme boundaries, cf. §2.1.3.1), but the term Deelə probably refers to the hill Deele (with a long vowel), which is described as an important place for the Waja (Kleinewillinghöfer 1991: 12). The long vowel in the variety Gwaandama (see below) cannot be explained.

¹⁰ Tarima is a Nvngvrama variation similar to Cerīma and Kəlama, according to one of my language assistants.

¹¹ Another variety, called Wala (after the town Wala in which it is spoken), is subsumed under Gvyvma due to their close similarities. Wala is also influenced by Waja; the speakers of both languages cohabitate. Differences between Wala and Gvyvma include the lack of nasalisation spreading on NF class suffixes (compare §2.1.3.5) and the use of *Lunguda* as an endonym term in Wala (Kleinewillinghöfer 2014b).

¹² Or Gwaanduma.

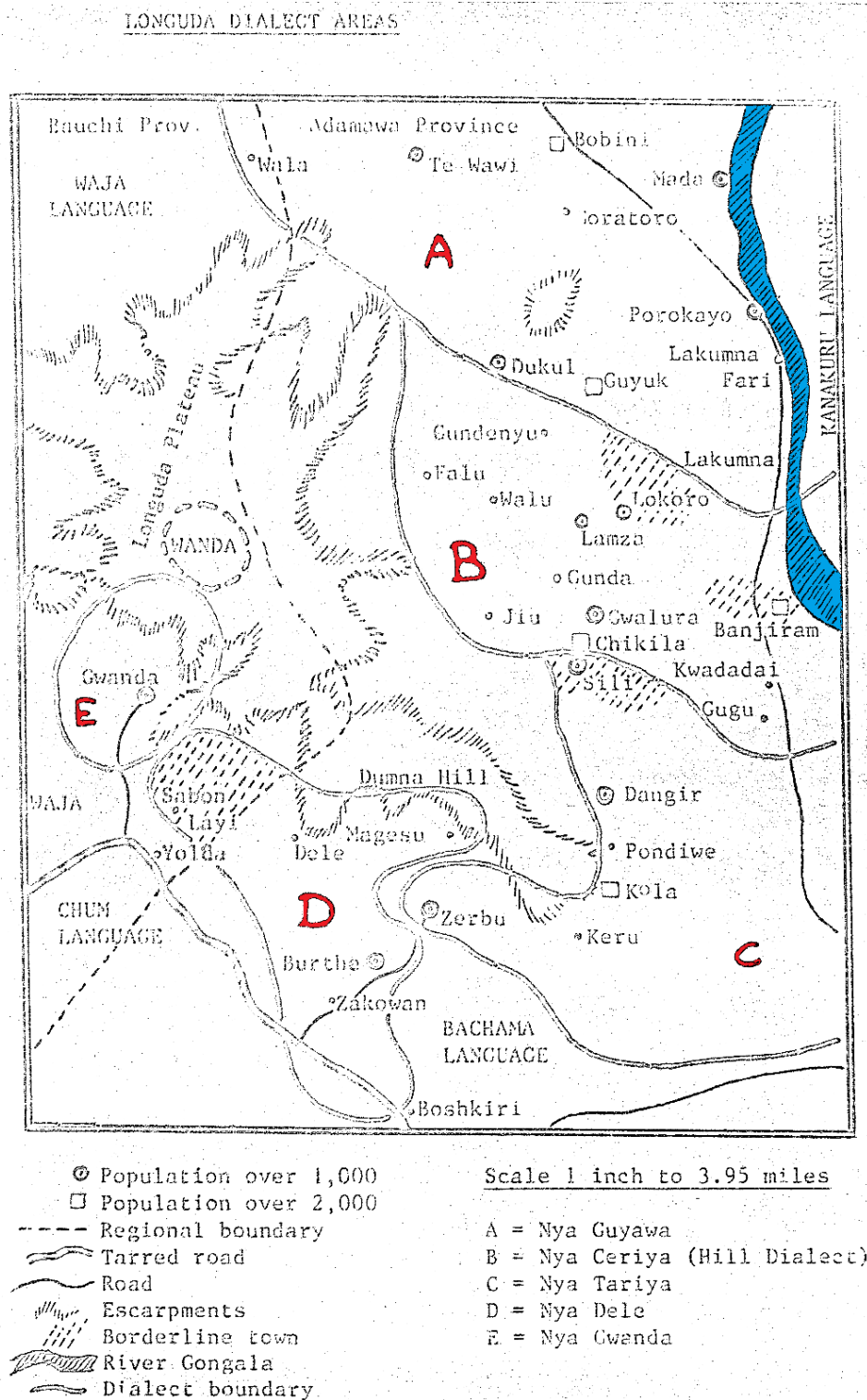
¹³ Possible origins of the term 'Nyuwar' are described in Sabe (2014: 1f.) and [B-N2].

¹⁴ For abbreviations of this type, cf. §1.3.3.

the Hill Waja of Degri and Sikam (Kleinewillinghöfer/Vigeland forthcoming, Newman/Newman 1977a: 5).

The **Kolama** variety (spoken by the Kolaba, also called Taraba) is spoken in the southeastern part of the Nongra territory, southeast of Dumna Hill

The following map illustrates the distribution of the five varieties of Nongrama.



Map 1. Geographical distribution of the Nongrama varieties (Newman/Newman 1977a: 2)

It is evident that the classification into five major varieties represents a simplification of the actual situation. The transition from one variety to another is often fluid, and the isogloss of one linguistic feature does not necessarily have to be the same as that of another feature (cf. Löffler 1990: 135f., Kabatek 2023: 63f., 73). For example, Cerīma shares certain characteristics with Gvyɔma in the towns Lokoro and Banjiram (Newman/Newman 1977a: 7). Another case is Wala, a variety that can be linguistically subsumed under Gvyɔma. The five varieties are therefore reported to be mutually intelligible to differing degrees, depending on factors such as exposure to the other varieties and similarity of varieties, especially regarding the lexicon (cf. Newman/Newman 1977a: 20ff., Sabe 1989: 2).¹⁵ Nevertheless, the bundles of isoglosses and geographical and social evidence justify the assumption of five varieties, a distinction which is used in this thesis.

Among the reasons for the differences in the varieties, two can be emphasised in particular. First, language contact situations and multilingualism gave rise to borrowings and calques. Multilingualism is a widespread phenomenon, especially among younger Nɔngvra people and in larger towns where the predominant languages are Hausa and English (and/or Nigerian Pidgin English) (Newman/Newman 1977a: 27f., Sabe 2014: 47f., 259). The increasing use of Hausa, the lingua franca of Northern Nigeria, has had and continues to have, the most significant impact on Nɔngvrama. This is typical of a contact situation between a ‘pragmatic dominant language’ (in this case, Hausa) and a less dominant language (in this case, Nɔngvrama) (Matras 2009: 137). It is noteworthy that, as Sabe (1989: 3) points out, this influence rather corroborates and increases the differences between the varieties:

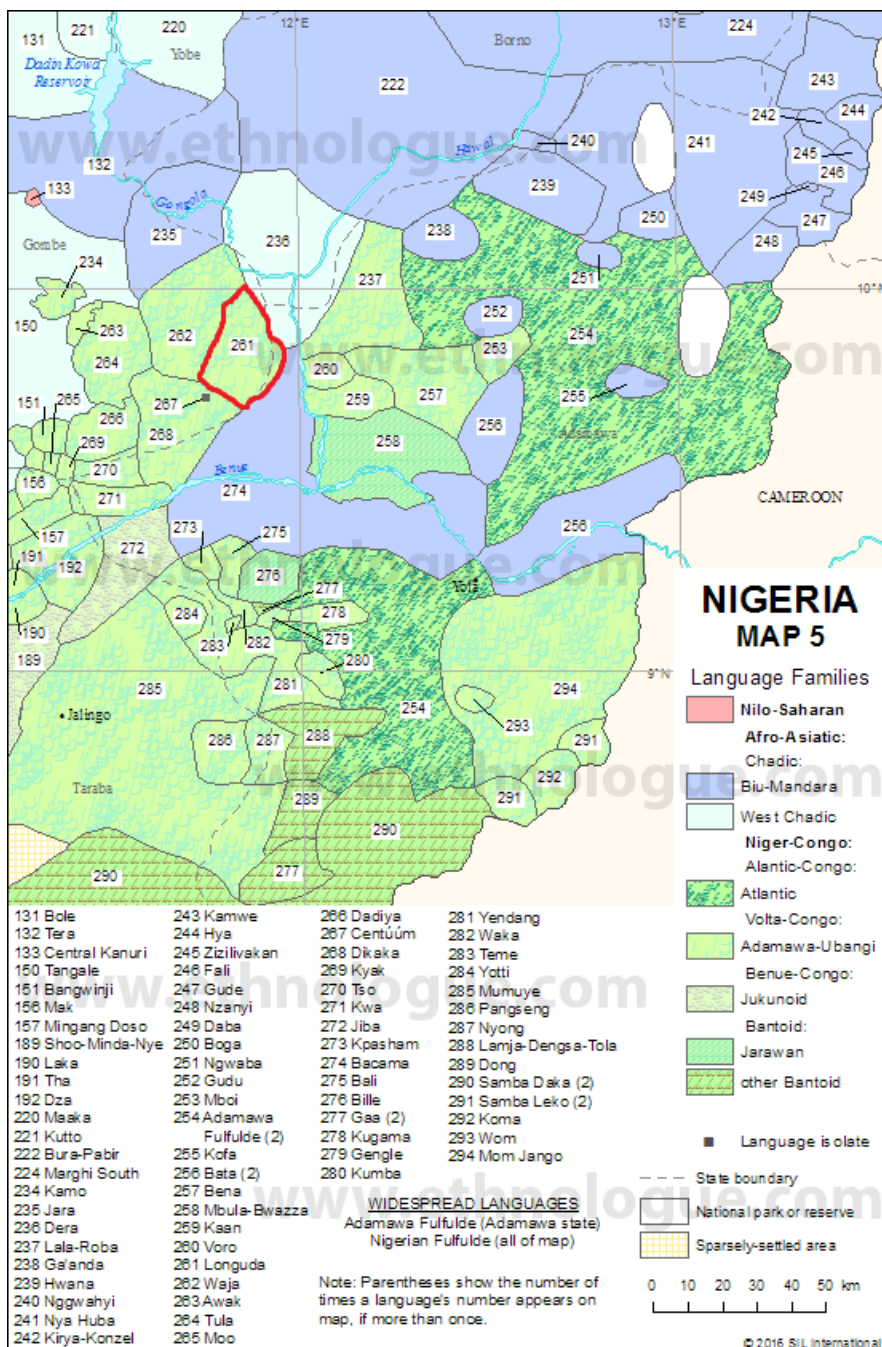
Because it [i.e. Hausa] is the language of wider communication in the northern part of the country its influence has penetrated deep into the Nungura land thus reinforcing dialectal differences (depending on how the various receivers perceive it). (Sabe 1989: 3)

In addition to English and Hausa as a means of wider communication, Nɔngvrama has been or still is in contact with several other languages, including Waja¹⁶ in the northwest and Cham in the southwest, as well as the two Chadic languages Bacama in the southeast and Dera in the northeast (Sabe 1989: 3, 2014: 28). Another language spoken in the vicinity of Nɔngvrama was Jalaa, which is now extinct and appears to have been a language isolate (cf. Kleinewillinghöfer 2001: 240). Sabe (1995: 7f.) also mentions Lala-Roba of the the Bəna-Mboi group, a language spoken to the northeast, which has

¹⁵ For example, according to Sabe (1989: 2) and interviews with a Gvyɔma and a Gwaandama speaker, Kɔlama is considered the most challenging to comprehend for other speakers. However, Newman and Newman’s (1977a: 20ff.) dialect survey only confirms this for Gwaandama speakers, while speakers of other varieties seem to understand Kɔlama much better. The survey conducted by Newman and Newman (1977a: 20) and my own interviews reveal that Gvyɔma speakers have more difficulty understanding other varieties, with the exception of Cerīma, than speakers of those other varieties understanding Gvyɔma.

¹⁶ Compare Kleinewillinghöfer/Vigeland (2016) for an analysis of language contact and lexical borrowings between Waja and the Gwaandama variety of Nɔngvrama as well as borrowings from Kanuri.

influenced Gvɔvɔma. The influence of neighbouring languages on Nvngvɔrama is limited to certain regions. For example, the Deelɔbɔ had more contact with the Cham, the Gwaandaba with the Hill Waja and the Gvɔvɔba (Wala speakers) with the Plain Waja as well as the speakers of the Chadic language Dera (cf. Newman and Newman 1977a: 5f.). Consequently, imported neologisms, loanwords and calques are usually found in some, but not all, dialect areas. For instance, the Gwaandaba borrowed the lexeme *jàngàrìwà* ‘louse’ from Waja *jangarà* (Kleinewillinghöfer 1995/2014: 2), but the Deelɔbɔ and Gvɔvɔba have *ɲinagàpìwà* and *kurumlá*, respectively [WL-D2, WL-G2]. Similarly, *làkìwà* ‘hoe’ in Gwaandama is derived from Waja *lakì* (Kleinewillinghöfer/Vigeland 2016), while ‘hoe’ translates as *fáwǝ̀wà* and *cáwǝ̀lá* in Deelɔmɔ and Gvɔvɔma, respectively.



Map 2. Languages of Northeastern Nigeria (Nvngvɔrama area is marked in red) (Simons/Fennig 2016)

The lexical differences are likely to be the result of both language contact and a language taboo, which is the second reason for the variety distinctions. The language taboo is a peculiarity of the N̄ngv̄raba and the neighbouring Jalaa, Cham and Tsobo to the southwest, that has resulted in the renewal of parts of their vocabulary, including the so-called basic vocabulary (Kleinewillinghöfer 1995). This practice is now receding or has already become extinct (cf. §1.1.8).

The abovementioned multilingualism that is common in Nigeria is contributing to a decline in the use of N̄ngv̄rama. N̄ngv̄raba living outside the N̄ngv̄ra area report that their children often have only a rudimentary understanding of the language or do not understand it at all because Hausa is preferred. This became evident in personal conversations with N̄ngv̄ra speakers living in Jos and with students of the Theological College of Northern Nigeria who, at the time of the interviews, lived nearby but not in the N̄ngv̄ra area (cf. §1.3.4). This may be attributed to their residence outside the N̄ngv̄ra area, leading to a more frequent use of Hausa. However, even within the language community in the area of the N̄ngv̄raba, Hausa is often the preferred language. For instance, a Ḡȳv̄ma speaker from Ḡȳv̄k confirmed that when trading goods in Nyuwar, where Gwaandama is spoken, he would rather use Hausa than N̄ngv̄rama.¹⁷ Nevertheless, especially when addressing elders, it would be considered disrespectful to speak any language other than N̄ngv̄rama. The dominant use and prestige of Hausa is also observed in other language communities and is a common trend among young people in northern Nigeria.

Despite the receding use of N̄ngv̄rama and the division into five varieties, the N̄ngv̄raba have a “sense of belonging to a single language body” (Sabe 2014: 28). Newman and Newman (1977a: 27f.) also note that “[t]here seems to be a sense of pride in belonging to the Longuda group and in the Longuda language”. After outlining the differences among the varieties, one of my consultants concluded by stating: “But we are all Longuda!”

¹⁷ For a detailed description of the use of Gwaandama in Nyuwar, compare Sabe (2014: 47f.).

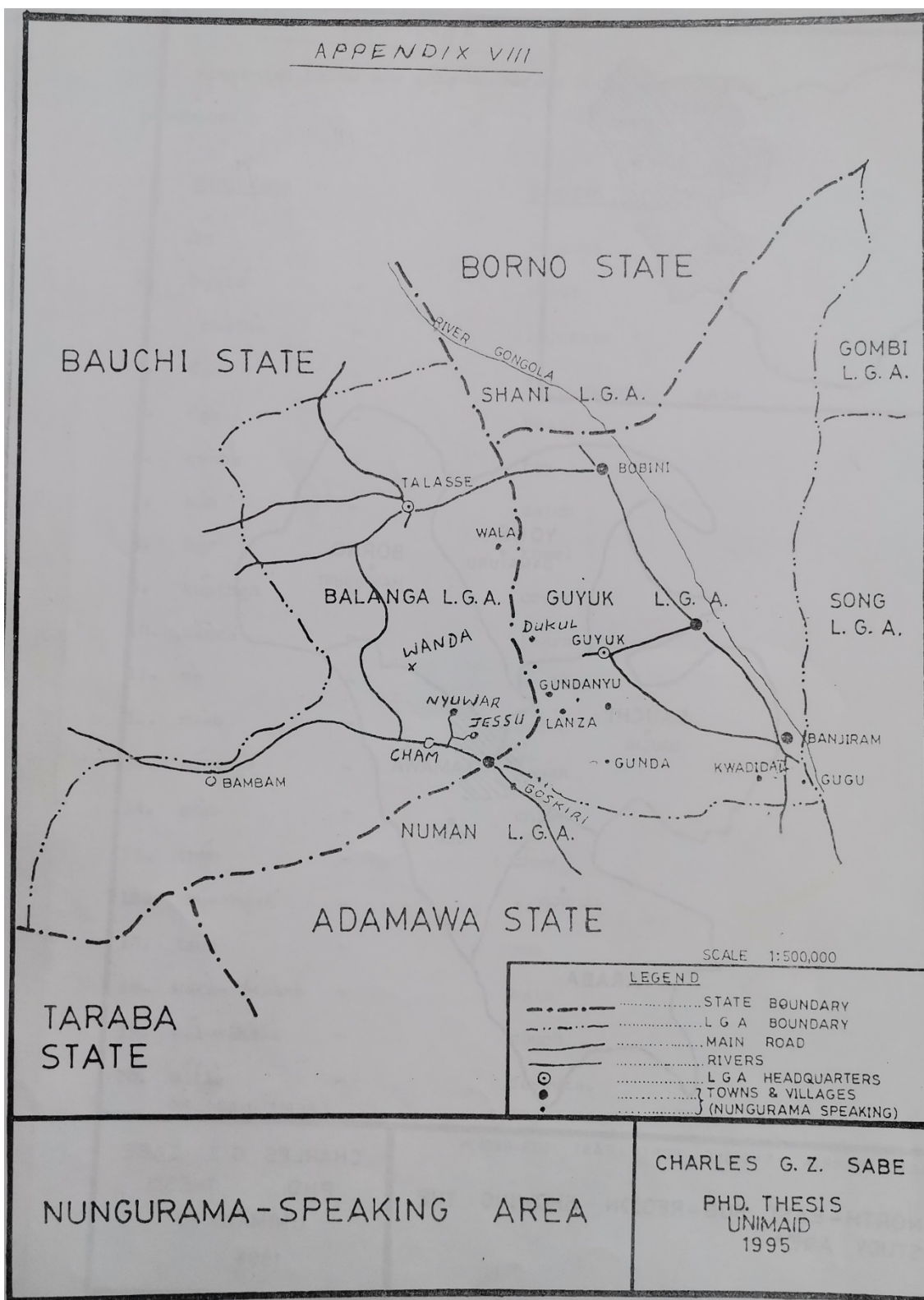
1.2.2 Geographical Distribution



Map 3. States of Nigeria

(States in which Nungvrama is spoken are marked) (Source: mapsopensource.com/9ft-ext-map-black-and-white.html)

Nungvrama is spoken on and around the Longuda Plateau, which is situated between the Gongola River to the east and the Muri mountains to the west. The majority of the Nungvra area is situated in Adamawa State (previously, until 1991, part of Gongola State), specifically in the Gvyvk Local Government Area (LGA) with over 36 towns and villages, and - to a much smaller amount with only a few settlements - in Lamurde LGA. The Balanga LGA in Gombe State (previously, until 1996, part of Bauchi State) is home to the Gwaandama, Deeləmə and Gvyvma (Wala) varieties, primarily in the three major settlements of Nyuwar, Jessu and Wala (Adelberger/Kleinwillinghöfer 1992: 45, Sabe 2014: 1, Dunnamah et al. 2016: 39).



Map 4. Nungurama-speaking area (with previous state name Bauchi instead of Gombe)
 (Source: Sabe 1995: 434)

The towns, villages and farms of the Nunguraba on the plateau and its foothills “are generally situated on terraces jutting out of the hills” (Brackenbury 1917: 1, for a detailed description of the area cf. Berns 1986: 4ff.). The majority of the Nunguraba relied on subsistence farming, a practice that partly continues to this day. Terraced cultivation is employed to prevent erosion and to cultivate crops such as millet, guinea corn, cotton,

beans and rice. The soils and climate offer ideal conditions for good harvests. In addition to agriculture, livestock farming, including goats, sheep and poultry, and hunting are common practices (Newman/Newman 1977a, Panyi Bairah 1987: 24, Sabe 1995: 3, Adelberger et al. 1996: 15, Dunnamah et al. 2016: 39, 46).

The Nungvra are surrounded by other peoples and languages, as reported in Kleinwillinghöfer (1996c: 113):

The mountains of the Tangale-Waja Uplands are inhabited by a number of small ethnic groups. They speak different languages which belong to two un-related linguistic stocks. The Afroasiatic stock is represented by Chadic languages [...]. But the majority of the languages belong to the Adamawa branch of the Niger-Congo stock.

Nungvra is spoken in close proximity to the Tula-Waja languages (part of ‘Adamawa’ or ‘Benue-Volta’) Waja and Cham, the Mbula-Bwazza cluster that belongs to the Southern Bantoid languages and the Chadic languages Bacama and Dera.

1.2.3 History

According to an Assessment Report from the early 20th century, the Nungvra have little knowledge of their migration history. The report notes that it “was hard to get from the Longuda [...] any definite account of their previous history. ‘They had always lived here’” (Brackenbury 1917: 13). Similarly, the ‘Anthropological Notes on Longuda Tribe’ (Anonymous 1929) state that the present generation has no traditions of their earlier history. This is also the prevailing sentiment expressed in the interviews conducted in the 1990s, where the interviewer received the following response to the question regarding the origin of Gwaandama speakers:

We ascended from Gimsa. [...] From Gimsa we came to Waanda. [...] Gimsa] is down there, after Waanda. I have not personally seen the place. I have only heard of it. Our actual home is Waanda only. [B-N1]

The interviewee was unable to provide information on when his people emigrated or the reasons for their departure from Gimsa in the first place (cf. Brunk 1994: 15). The following is a brief history of the Nungvra as reported in various works, including Newman and Newman (1977a), Panyi Bairah (1987), Berns (1986), Nissen (1993), Brunk (1994), Sabe (1995, 2014), Adelberger (2009) and Berns and Fardon (2011).

It can be assumed that the Nungvra migrated into the present-day area alongside other ethnic groups, such as the Lala and the Yungur¹⁸, from the northeast (Berns 1986: 18, Nissen 1993: 161). According to Kleinwillinghöfer (p.c.), some of their ancestors may have possibly come from the Mandara mountains, similar to the ancestors of the Bena-Mboi groups.¹⁹ Currently, only Chadic languages are spoken in the Mandara mountains.

¹⁸ Contrary to this, Meek (1931: 332) reports: “It was suggested that some of the hill sites now occupied by the Longuda were formerly held by the Yungur, but there was no general belief that this was so”.

¹⁹ Cf. Kleinwillinghöfer (2019b) on the contact of Benue-Plateau languages and ‘Adamawa’-Gur languages.

In some sources, Yamen (=Yemen?) is even reported as being the country of origin (Brackenbury 1917: 13, Panyi Bairah 1987: 3, Sabe 1995: 1, 2014: 2f.).²⁰

Panyi Bairah (1987: 3) assumes that the Nūngv̄raba's relocation to their present area was precipitated by a history of recurrent conflict with the autochthones. He estimates that they arrived in Waanda at the end of the 18th century, after travelling through the Jukun kingdom (=Kororofa) in the 17th century. It is unclear who inhabited the area before the arrival of the Nūngv̄raba (Kleinewillinghöfer p.c., Nissen 1993: 46). Dukil on the Longuda plateau is regarded as the ancestral homeland of the Cham people, who may have inhabited the area prior to the Nūngv̄raba. According to oral traditions, the Yungur and/or the Dera resided in and exercised control of the Gongola lowlands until they were driven out of Lakumna, a town on the opposite side of the Shellen River, by the Nūngv̄raba in the 1850s (Meek 1931: 331ff., Nissen 1993: 161f., cf. Berns 1986: 361). Ikime (1980: 169) also reports on this: "Before the 19th century the Kanakuru [Dera] exercised control over some Lunguda [...] on the Lala Plateau and in the region north of the Gongola-Hawal confluence". This area is located to the north of the present-day location. Contrary to this, Brackenbury (1917: 14) suggests in the aforementioned Assessment Report that "the Longudas may be the original inhabitants of the Gongola and Benue valleys at this point, driven into the hills by later immigration" (cf. Berns 1986: 19, 361, 408). Panyi Bairah (1987: 7f.) presents both possibilities but concludes that the Dera were the first settlers (cf. Nissen 1993: 90, 162).²¹

Waanda is considered the central area of the Nūngv̄raba, from which the various family groups subsequently dispersed (Nissen 1993: 161).²² While some groups settled on the plains, the majority continued their journey into the mountains. The reasons for this further migration wave may have included the outbreak of smallpox, a famine due to unfertile soils (Sabe 2014: 3) and overpopulation "leading to insufficient land for expansion and cultivation" (Panyi Bairah 1987: 5). The Gwaandaba were the last group to leave Waanda and settle in Nyuwar, according to Sabe (2014: 4). In contrast, Woodhouse (1924: 112f.) reports that the settlers of Nyuwar allocated land to the Jessi²³, who arrived later. In a narrative of the Gwaandaba, Kwayawi, the founder of Nyuwar, is said to have discovered the fertile valley by chance while searching for his lost bull (Newman/Newman 1977a: 5, Nissen 1993: 161, Sabe 2014: 4 and [B-N1]).

The first contact with British colonialists was in 1906, or possibly even earlier in 1902, when the British established colonial rule and undertook military patrols in the Tangale-Waja region and the wider Muri mountains (cf. Nissen 1993: 50, Brunk 1996: 11, Adelberger 2009: 13ff., 29, 51f.). Sabe (2014: 8f.) reports on "Carlyle the white man", who came to Nyuwar in 1906 with the intention of learning about the chiefs of the towns

²⁰ This is a common story of origin by many peoples in the wider region, as reported e.g. by Lange (2004: 321f., 2011: 580).

²¹ For an account of the "dramatic and disruptive events" in the Benue River Valley in the 19th century, cf. Berns and Fardon (2011: 23, 34f.).

²² According to Meek (1931: 332f.), however, Dukil was the first town where the Nūngv̄raba settled before dispersing further.

²³ I.e. Deeləbə?

and villages and later became a famous District Officer in the area. Although the initial encounter is described as peaceful, the Nvngvra were compelled to defend themselves on numerous occasions against the British colonial power. The towns Banjiram and Gvyvk²⁴ were attacked and burnt down in this context (Meek 1931: 334, Newman/Newman 1977a: 4, Nissen 1993: 50, 162, Adelberger 2009: 34ff.). In the following years, Christian missionaries were permitted to enter the ‘Pagan districts’ of the Northern Provinces and establish mission stations, amongst them several in the area of the Nvngvra: The first were opened in Gvyvk around 1930, followed by towns such as Bobini, Banjiram and Nyuwar. Churches were built, but the Christian faith was primarily disseminated through educational institutions and health services (Panyi Bairah 1987: 38ff., Nissen 1993: 50f., 167f., 170f., Sabe 2014: 115f., 258).²⁵

The Nvngvra traditionally believe in a higher being or “supreme God” (Dunnamah et al. 2016: 43), although the specific name of this deity differs across the sources.²⁶ Currently, Islam and Christianity are the dominant religions in the Nvngvra region, having displaced traditional beliefs to a large extent. According to Sabe (2014: 81), Islam was introduced to the region “through traders (who traded in animal skins and cotton) and cattle rearers” during the reign of Pisagih (1906 to 1927)²⁷ (cf. Dunnamah et al. 2016: 49).

The establishment of mission stations resulted in the division of the area into four districts: Banjiram and Gvyvk Districts each comprised fifteen villages, while Nyuwar, Dele, and Wala-Lafiya were located in the Tangale Districts. Three additional villages were under the direction of the Sudan Interior Mission Church (SIM), which later became part of the Evangelical Church of West Africa (ECWA). These districts belonged to two different provinces.

In the case of the Longuda people, the division of the Longuda land into two major district churches – the Luthren [sic]²⁸ Church in Adamawa Province and the Sudan Interior Mission Church in Bauchi Province marks the subsequent division of the Nvngvra people into two provinces by the colonial administrators (Panyi Bairah 1987: 41).

[...T]he colonial masters drew the boundary between these provinces irrespective of the oneness of the Longuda people. The decision was taken for administrative convenience – without due consideration for the unity of the people (Panyi Bairah 1987: 44).

During the British colonial period, the system of ‘indirect rule’ was implemented. This allowed chiefs and other leaders to hold office, but they de facto lost much of their

²⁴ Actually Gweo, which is the Nvngvrama name for Gvyvk, according to Meek (1931: 332, cf. Nissen 1993: 162).

²⁵ For a detailed account of the missionary activities from 1929, cf. Nissen (1993: 165ff.). A description of how religion has an impact on everyday life today can be found in Sabe (2014: 66ff.).

²⁶ *Yalakaduunyi* (‘heavenly sun’) or *Yambawadunyi* (‘heavenly God’) in Panyi Bairah (1987: 29), *Tambarade* in Dunnamah et al. (2016: 43) and *Nyalaka de* (‘sun above’) in Meek (1931: 351).

²⁷ At least in Nyuwar amongst the Gwaandaba.

²⁸ Probably the Lutheran Church of Christ in Nigeria, which was “founded in 1913 by SUM (Danish branch) [...] with its headquarters in the city of Numan of the North East Adamawa province” (LCCN Nigeria 2012).

power.²⁹ Pany Bairah (1987: 45, 47) suggests that “the chiefs no longer served the interest of their people but rather served as British representatives”. Following Nigeria’s independence in 1960, the Nvngvraba of Nyuwar, Dele and Wala-Lafiya, which were all part of the Bauchi province, requested administrative consolidation with the rest of the Nvngvraba who lived in the Gongola province. Their objective was to benefit from a better health system, access to clean drinking water and improved roads (Panyi Bairah 1987: 55f.). Despite the rejection of their request, it did result in improvements to healthcare and road infrastructure (Panyi Bairah 1987: 59f.).

Conflicts, including military ones, repeatedly interrupted the peace between the Nvngvraba and their surrounding peoples, as described in the songs and interviews in [B-N2], [B-N3], and [B-N4].³⁰

1.2.4 Kinship groups

The Nvngvraba are divided into kinship groups, also called ‘clans’ in the literature and by the speakers. Each person belongs to two groups, one on the paternal side and one on the maternal side, regardless of the variety they speak (Panyi Bairah 1987: 27). There are several³¹ paternal groups called *wàlá*³², each with its own set of obligations or prohibitions. The *Bǎkwàhàbà*, for example, assume leadership roles, while the *Bǎnamba* are responsible for hunting and the *Bǎtsuma* for peace negotiations (Sabe 2014: 53ff.). Some groups are reported to have a special relationship with certain animals (Nissen 1993: 164). As an example, one of my language assistants, who is a *Bǎnisubye*, also called *Bǎhɔyaya*, shared with me:

I can’t kill a snake and I can’t eat snake. And my parents told me that if anybody is born in our clan [...], the day or a few days you are born in that clan, definitely, a snake will visit the house to welcome a new visitor [... and you] see a snake lying beside your child and you will not talk, you will not shout, you will just go back quietly because the ancestors have visited [...] ordinarily a snake can’t harm us, ordinarily.

The maternal kinship groups are called *kwàntà*.³³ They are fewer in number than the paternal groups and do not involve any obligations. According to the people I spoke to, the maternal kinship groups seem to be declining.

Table 1 gives an overview of the paternal kinship groups, including their associated obligations and prohibitions (the absence of data in a field indicates that no information

²⁹ It is worth noting that in acephalous societies (i.e. societies without a formal leader), such as several of the peoples in that region, the British system of indirect rule required the imposition of a paramount chief or political leader, even in cases where none had previously existed (Kleinewillinghöfer p.c.).

³⁰ For sources in square brackets, cf. §1.3.3.

³¹ Six according to Sabe (2014: 53), eight according to one of my language assistants, nine according to Meek (1931: 342). Dunnamah et al. (2016: 43f., 48) mention six kinship groups by name, but unfortunately it is unclear whether this is an exhaustive list.

³² Plural *wàá* (in Gvɔvma), also called *wvla* or *vɔtha* in (Sabe 2014: 53) and *và* in [B-N1].

³³ There are two kinship groups with subdivisions according to Meek (1931: 340), but three according to Sabe (2014: 53) and six according to [B-N1].

is available). Table 2 lists the maternal kinship groups. It includes all kinship groups mentioned in the literature and in the interviews conducted during the research. Whether these are all indeed distinct kinship groups, or whether they can be grouped together as subgroups or as alternative names for the same groups, needs further investigation.

Paternal kinship groups	Obligations	Prohibitions	Source
<i>Bōcəbə / Bōsibe</i>	guide runners during <i>cicibiwə</i> festival; forecasters and advisors		Sabe 2014: 53, B-N1, own data
<i>Bōdzvuba</i>	blowing horn at the eve of <i>cicibiwə</i> festival; giving order for the weaving of <i>zana</i> mats; leading prayers on bad omen; handling <i>pwalam lvgama</i> festival; clearing the venue for <i>cicibiwə</i>		Sabe 2014: 54, B-N1, own data
<i>Bōhəyaba / Bōñisubye</i> (name derived from ‘snake/cobra’)	handling destructive birds	killing/eating snakes	Sabe 2014: 54, Dunnamah et al. 2016: 43, B-N1, own data
<i>Bōkwehəbə</i> (“those who do not fall sick easily”)	rulers; collecting information for sanctions and cleansing of the land		Sabe 2014: 54f., B-N1
<i>Bōñamba</i> (“those who like meat too much”)	praying for rain and good crops; exerting revenge; hunting of animals		Sabe 2014: 55, B-N1
<i>Bōtsvumba / Bansumbe</i> (name derived from the tree <i>tsvmka</i> under which the kinship group used to meet)	stopping evil spirits ³⁴ ; confirming the appointment/election of a new headman/chief; arrangements for the <i>pəryəwə</i> festival; giving the lead for the commencement and stoppage of hunting; alerting people on the need to start fresh roofing of their huts and prepare the farmlands for the next rainy season; making peace	killing/eating locusts	Sabe 2014: 56, Dunnamah et al. 2016: 44, B-N1
<i>Bōsaba / Bakimbaraba</i>		killing/eating crocodiles	Dunnamah et al. 2016: 43, own data

³⁴ For example by using “healing vessels [...] in ritual procedures [...] to transfer the spirits of disease from a patient to a specially made ceramic pot” (Berns/Fardon 2011: 35f.). These clay vessels used for ritual purposes can also be found with the neighbouring Cham and Waja (Adelberger n.d.: 22). For more detailed descriptions, cf. Meek (1931), Hare (1983), Panyi Bairah (1987), Nissen (1993: 162ff.) and Dunnamah et al. (2016).

<i>Bḥwablība</i>		killing/eating monkeys	Dunnamah et al. 2016: 43
<i>Bḥshuryebe / Bḥzaṇība</i>		killing/eating birds	Dunnamah et al. 2016: 43f.
<i>Bḥjumbe</i>		killing/eating bigger animals (e.g. elephants, buffalos)	Dunnamah et al. 2016: 44, own data
<i>Bḥjaba</i>		killing/eating dogs	own data
<i>Bḥkubebe</i>			own data

Table 1. Paternal kinship groups

Maternal kinship groups	Source
<i>Baafḥwa / Bḥfḥwá</i>	Sabe 2014: 57, B-N1, own data
<i>Dáswiká</i>	B-N1
<i>Jóújòùwà</i>	B-N1
<i>Lḥwà</i>	Sabe 2014: 57, Dunnamah et al. 2016: 44, B-N1, own data
<i>Sakasənawa</i> ³⁵	Sabe 2014: 57, own data
<i>Svmgilwa / Svmgálwá</i> ³⁶	Sabe 2014: 57, B-N1
<i>Waalḥwa / Wálḥwà</i>	Sabe 2014: 57f., B-N1, own data
<i>Yàrgáwá</i>	own data

Table 2. Maternal kinship groups

³⁵ This is the only maternal kinship group mentioned in the data as having an obligation, which is handling ants, according to Dunnamah et al. (2016: 44). In Sabe (2014: 57), it is described as having assimilated with *Lḥwà*. However, one of my language assistants identified with this kinship group, and therefore it still seems to be differentiated.

³⁶ Assimilated with *Wálḥwà*, according to Sabe (2014: 57). [B-N1] reports that *Wálḥwà*, *Lḥwà* and *Svmgálwá* had been one kinship group, called *Dáswiká*.

Usually, the oldest member of a kinship group is its representative and implicitly its leader (Sabe 2014: 53). These leaders, known as *kwandiri*, “are the traditional forces that ensure the coherent adherence and compliance of the laws passed by the priests” (Dunnamah 2016: 47). In addition to the duties associated with a kinship group membership, there are two types of relationships between certain kinship groups. Paternal kinship groups have joking relationships with certain other kinship groups, which are expressed through “jokes, abuses, satire, irony and forms of mockery that aim[...] at satirizing one or correcting one’s behaviour” [B-N1]. Maternal kinship groups, on the other hand, have burial relations. Burial relations refer to the practice of two maternal groups burying their deceased members, i.e. a “member from one clan lays to rest [...] the deceased from his contrasting clan and vice-versa” [B-N1]. The customs of both paternal and maternal kinship groups are currently in decline, as already noted by Meek (1931: 341f.) and confirmed by my own interviews.

1.2.5 Language Taboo

As mentioned above, one striking distinction between the varieties is the difference in their lexicon. For example, nouns such as ‘tree’, ‘goat’ and ‘foot’ often differ significantly between varieties. It probably goes back to a custom of not speaking the name of a deceased person aloud. It is only reported for a few languages in northeastern Nigeria, namely Nvngvrama, Tso, Cham, Kwa/Baa and Jalaa (Kleinewillinghöfer 2001: 243, 2010). Neighbours such as the Waja and the Dera do not follow this custom.

The emic view of this custom is described by Newman and Newman (1977a: 10), who provide three reasons for it in Nvngvrama: “1) it would be disrespectful to use the name of the deceased person, 2) if the deceased’s name is used it is as if one is calling the deceased and talking to him in person, 3) using the deceased’s name will bring sad memories to the relatives”. In addition to the third point, one of Kleinewillinghöfer’s (1995: 126) consultants stated that using the name of a deceased relative could cause emotional distress to their family members and potentially lead to conflict.

Aikhenvald and Storch (2019: 10) describe language taboos, such as the one found in Nvngvrama, as “easily translat[able] into practices of avoidance and secrecy. It also has discursive and performative dimensions”. According to Allan and Burridge (2006: 222), the primary reason for a taboo related to death is fear:

Death is a fear-based taboo. There is fear of the loss of loved ones; fear of the corruption and disintegration of the body; fear of the very finality of death; fear of what follows the end of life [...]; fear of malevolent spirits, or of the souls of the dead.

A custom like the one in Nvngvrama is not uncommon in languages, because “[o]ne’s name is an inalienable part of one’s identity; it is the essence of self and it is a means by which one is known to one’s fellows” (Allan/Burridge 2006: 125).

As many Nvngvra are given names that are appellatives, these words have to be replaced by others decided upon by the older relatives of the deceased (Newman/Newman 1977a: 11). In many societies where such a taboo exists, it is common for the word itself

and sometimes even phonetically similar words, to be tabooed (Allan/Burridge 2006: 127). Newman and Newman (1977a: 11) give the example of a man called Tsalwa, which means ‘ant’. After his death the older relatives decided to call the animal *nyi tsanawa* ‘thing that smells’. The speech community (of the area, not necessarily all Nɔngvra speakers) adopted this term, which led to the replacement of the original noun. The result of such a custom is a “considerable and extremely rapid change, even in core items that normally resist change in other languages“ (Allan/Burridge 2006: 128). This is also true for the Nɔngvrama varieties, where large lexical differences can be found. It can be assumed that the taboo is the reason for this.

A few examples of lexical variety are shown in the following table.

Deeləmə	Guyuma	Gwaandama	Gloss
<i>yírà</i>	<i>mwàya</i>	<i>gíhíyá</i>	‘woman’
<i>s̃wà</i>	<i>jíyáwá</i>	<i>s̃wa</i> (Sabe 2014: 51)	‘dog’
<i>ɲóm mwárúwà</i> (lit. big animal)	<i>làràwá</i>	<i>ɲàm ɲúsùnwà</i> [WL-N1]	‘elephant’
<i>kóbà</i>	<i>kikáwá</i>	<i>kààwà</i> [WL-N1]	‘face’
<i>tíkà</i>	<i>tíká</i>	<i>wáhákà</i> (lit. place to rest)	‘tree’
<i>mámà</i>	<i>mámá</i>	<i>dwàmà</i> [WL-N1]	‘water’
<i>ǰáwǝ̀wà</i>	<i>cáwǝ̀lá</i>	<i>làkìwà</i> / <i>cíciwǝ̀</i> ³⁷ [WL-N1]	‘hoe’

Table 3. Lexical variety

So far, little is known about the strategies of the Nɔngvra for appointing new words. Sometimes paraphrases are used, as with the names for ‘elephant’ in Deeləmə, ‘ant’ in Guyuma or ‘tree’ Gwaandama (see table above), or words are ‘borrowed’ from neighbouring languages. For the word *miyáwà/miyáwá* ‘goat’ (Deeləmə/Gwaandama, as opposed to *jíjùwè* in Guyuma), the speakers suggested that it might be onomatopoeic, i.e. imitating the bleating of a goat. Strategies used in other languages with similar taboos include “circumlocution, phonological modification, extending the meaning of a near-synonym (thus reintroducing rarely used words into the basic vocabulary), borrowing from another language, or even by coining a new word“ (Allan/Burridge 2006: 128). It is possible that at least some of these strategies were used in Nɔngvrama, but neither the literature on this phenomenon in Nɔngvrama nor my own interviews shed much light on this question. What is striking is that in most cases the old and the new word can be found within the same nominal class (Kleinewillinghöfer 1995: 128), as can also be observed in the table above (cf. §4.2.1).

Kleinewillinghöfer reports that the Cham are mostly aware of the lexical differences between their two dialects

while Tsobo and Longuda often only have a limited knowledge of the most common differences found between the various sections. Although Tsobo and Longuda people each regard the various sections as parts of one ethnic group, speaking the same language – the grammar is identical to a very high degree – they do admit that they have difficulties in

³⁷ Also *làkìwà* and *cíciwǝ̀* in [WL-N1].

understanding what is spoken in some of their other settlements. (Kleinewillinghöfer 1995: 129)

This is an observation that I have also made in my research, although Sabe (1995: 6) reports that “[w]ords peculiar to each group – which naturally exist – are generally well known”.

Today, the language taboo does not seem to be a common practice anymore. Newman and Newman (1977a: 11) already wrote in the 1970s: “Although the custom is dying, in each area, the older men can remember the time when this belief was practised and are able to relate this custom and give examples”. Among the Guyuba, a child could even be named after its late father, but out of respect the word *tam* ‘the cry of’ would be used before the deceased’s name. In the town of Dangir, the taboo was still in practice in the 1970s, but the name could be used when important decisions had to be made. From the Deeləbə it is reported that the language taboo was abolished in the 1960s: “The people of the town gathered together and agreed to keep the original names of the deceased ‘so that the language will not die’” (Newman/Newman 1977a: 11).

My own interviews with students at the Theological College of Northern Nigeria (TCNN) also revealed that the taboo of mentioning the name of a deceased person is not as prevalent as it once was. The students initially denied the existence of this taboo, but subsequently acknowledged that it is still sometimes perceived disrespectful to mention the name of a deceased person. For instance, one student mentioned that he was not allowed to say his late grandfather’s name out loud. Another person said: “An old man, we don’t just call their names like that. But now, it doesn’t work like that [anymore]”. When asked why it is disrespectful, he replied: “Because we believe in ancestors. So when you are in trouble, when you call their names, then they respond to you [...]. They may likely render help because they may say ‘our son is in trouble’. [...] We don’t use it [i.e. the name] casually like that”.

1.3 The data

1.3.1 General remarks

The Nvngvrama data is derived from a multitude of sources, both published and in manuscript form. It can be categorised into three groups, which are discussed in the following subchapters:

- 1) published material and theses on Nvngvrama by various authors (§1.3.2)
- 2) unpublished data collected and compiled by Kleinewillinghöfer (§1.3.3)
- 3) data collected by the present author in Nigeria and online (§1.3.4)

The three groups cover a wide range of text genres and types of data collection, including wordlists, paradigms of inflected word forms, translated clauses, interviews, greeting dialogues, songs, retellings of picture stories and folk tales. Whenever referring to ‘the data’, it encompasses all three groups collectively.

As the data comes from various sources, it is necessary to address the notation used in this thesis and the presentation of language examples, which is done in §1.3.5 and §1.3.6, respectively.

Besides linguistic data that is described in the following subchapters, various books and articles of non-linguistic nature have been published on the Nvngvra or the Nvngvra area. These include works on history (Woodhouse 1924, Berns 1986, Panyi Bairah 1987, Adelberger 2009, Abdullahi 2018), anthropology (Brackenbury 1917, Anonymous 1929), geography (Gebauer 1996, Kasidi/Ndatuwong 2008), archaeology (Hare 1983, Schädler/Duchâteau 1997, Berns/Fardon 2011) and religion (Nissen 1993, Vanden Berg 1999, 2005, Dunnamah et al. 2016) or cover several of these topics (e.g. Brackenbury 1917, Meek 1931). The aforementioned sources were the main sources for the description of the sociolinguistic setting in §1.2. As they do not constitute sources that contribute to the linguistic data, they are not listed in the following chapter.

Comparative data on ‘Adamawa’ languages and beyond is taken from monographs and papers on individual languages, particularly those surrounding Nvngvrama. These include Kleinewillinghöfer’s (1991) work on Waja, Elstermann’s (2021) and Hall’s (1954/1956) analysis of Tula, Ajede’s (2022, 2023) research on Cham, Lesage’s (2020) thesis on Kam, Möller Nwadigo’s (n.d.) manuscript on Baa and Newman’s (1974) description of Dera. Additionally, comparative works were consulted, including those of Kleinewillinghöfer (e.g. 1995, 1996a, 1996b, 2020), Elders (2006) and Boyd (1989).

1.3.2 Published materials

This chapter provides a comprehensive list of published articles and books as well as grey literature such as files from archives, theses and alphabetisation material, that are mainly or partially related to Nvngvrama. Unless otherwise indicated, they were included in the corpus used for this thesis.

In his publication ‘Tribal Studies in Northern Nigeria’, Charles K. Meek (1931) dedicates a chapter to the Nvngvra people. The chapter includes a description of the geographical setting, the history and culture of the people, as well as wordlists and clauses from both Plain and Hill Nvngvrama³⁸. While some of the information on geography, history and culture are included in §1.2, the wordlists and clauses were not taken into consideration, mainly because the distinction between Plain and Hill Nvngvrama is not sufficient for the purposes of this thesis.

The ‘Benue-Congo Comparative Wordlist’ by Kay Williamson and Kiyoshi Shimizu (1968) and Williamson (1973) compares over one hundred lexemes in 96 languages, including Nvngvrama. The Nvngvrama data was contributed by Herrmann Jungrathmayr (Gwaandama variety) and by John Ballard (Gvyvma variety). Jungrathmayr also contributed wordlists and grammatical data to Voorhoeve and de Wolf’s ‘Benue-Congo noun class systems’ (1969). Moreover, the same author (1968/1969) analysed the noun

³⁸ Cf. §1.2.1 on the varieties of Nvngvrama.

class systems of languages from the Tangale-Waja district, including Gwaandama of Nyuwar. The analysis also entails wordlists. With the exception of the last publication, the materials were not used in favour of more recent and more detailed work.

Between May 1971 and January 1973, Bonnie Newman and John Newman, who were affiliated with SIL, resided in the Nungvrama speaking area (Newman 1976: 67). They wrote a series of articles and two monographs on Nungvrama. The latter are a dialect survey (1977a) and a description of the phonology of the Gvyvma variety (1977b). All articles focus on Gvyvma and cover various topics such as tonology (1974), the verb with its verbal extensions and TAM markers (1978), clause structure (1976) and “participant orientation“ (1978). Some of their linguistic analyses have proven to be incorrect, e.g. the distribution of vowels or the description of the comitative marker and the pluractional verb extension as one morpheme. Nevertheless, with the caveat that not all examples are marked with tone, the Gvyvma examples were included in the corpus.

A first translation of the New Testament in the variety Gvyvma was published in the 1970s by the Longuda Bible Translation Society (1978, cf. Sabe 2014: 27) and an app containing a full translation of the Bible (i.e. the Old and New Testament) has been released, probably in 2022 or 2023 (Wycliffe Bible Translators n.d.). These Bible translations were only used when no other comparable material to Deeləmə and Gwaandama was available in the corpus, as they may not reflect actual spoken language use. Therefore, only a few phrases and clauses from both translations are cited throughout this thesis. In these cases, a reference is made to the respective part of the Bible using an abbreviation of the book, chapter and verse (e.g. Lk 5, 1 refers to Luke, fifth chapter, verse 1). In addition to the written Bible translations, Joshua Project (2023) offers “short audio Bible stories and evangelistic messages” in Deeləmə, Gvyvma and Gwaandama, as well as a translation of the Jesus Film.³⁹ They were not included in the corpus.

Alphabetisation material, most likely developed by Newman and Newman, comprises a collection of folk tales (Anonymous 1975) and a booklet designed as a primer for alphabetising Nungvra speakers in their own language (Institute of Linguistics 1975).

Three theses have been written by native speakers of the Gwaandama variety. Francis T. Hiraki (1986) and Charles Z. Sabe (1989, 1995) comparatively analysed the challenges encountered by Nungvra students of English as a second language in Curriculum Studies at the Faculty of Education, University of Jos. Sabe (2014) also published a book on the history and cultural practices of the people of Nyuwar, which includes a grammatical sketch of the Gwaandama variety.

Ulrich Kleinewillinghöfer published a few wordlists and a short description of the Nungvrama cluster (1994/2014, 2014a, 2014b) as well as a paper on the vowel harmony system in Nungvrama ((1994), later updated with new insights 1994/2019)). He furthermore referred to Nungvrama with lexical data in comparative studies of

³⁹ <https://globalrecordings.net/en/language/lnu> and <https://www.jesuskfilm.org/watch/jesus.html/longuda.html> [accessed 2024-06-21].

‘Adamawa’ languages (e.g. 1995, 1996a, 2014c, 2020, Kleinewillinghöfer/Vigeland 2016).

The latest publications and papers on Nungvrama with new data are from Vigeland (2019a, 2019b, 2020a, 2020b, 2021, 2023a, 2023b).

1.3.3 Unpublished data collected by Kleinewillinghöfer

The unpublished data, on which this thesis partly relies, was provided by Ulrich Kleinewillinghöfer. Any quotations from this data are labelled with an abbreviation in square brackets, as opposed to parentheses for published material. These abbreviations are given in the last column of the tables in this chapter.

The unpublished data can be divided into three categories, which will be described below: (1) wordlists, (2) clauses and phrases, and (3) interviews and songs.

As part of a research project⁴⁰, Kleinewillinghöfer recorded wordlists in the years 1990 to 1995. Additionally, Nungvra speakers were commissioned to record wordlists. The task was extensive, with each of the five varieties having approximately 600 to 1500 lexemes, including nouns (mostly with their plural forms), verbs, adjectives, pronouns, numerals and question words. Although not all lexemes are marked with tones, the lists offer an invaluable contribution to the description of the varieties in the field of phonology and morphology, especially in relation to ‘noun classes’. They enable not only comparative work across varieties, but also with other ‘Adamawa’ languages and beyond. All wordlists were made available to the present author in digitised form (i.e. as word and/or PDF documents), and some are also available as originals (i.e. handwritten lists and recordings on cassettes). The following table gives an overview of the wordlists, including their varieties, content (if possible to specify), names of the speakers and the abbreviations for citing.⁴¹

⁴⁰ ‘Research on Cultural Vocabulary in Gur and North-Western Adamawa Languages’ as part of the multidisciplinary project ‘History of Culture and Language in the Natural Environment of the West African Savannah’ (SFB 268) at the Goethe University Frankfurt, funded by the German Research Foundation (DFG) between 1988 and 2002.

⁴¹ Two wordlists cited in this thesis were published by Kleinewillinghöfer and are therefore not included in this table, but were mentioned in §1.3.2.

Variety	Content	Speakers	Source
Deeləmə, Kəlama, Gwaandama	Based on Swadesh's 100 wordlist ⁴²	Belforce C. Jessu, D'Daniel A. Salomon (Deeləmə), Bitrus Zagwaldcou, Gimmeye Ginde (Kəlama), Haskainu T. Lethele (Gwaandama)	WL-L1
Gvyuma and Gwaandama	Wordlist with geographical and geological terms	Golfa Akila, Akila Limá, Richard Ali (Gvyuma), Abraham Pwatama (Gwaandama)	WL-L2
Gvyuma and Kəlama		Michael Jamthi, Williams Zalson (Gvyuma), Charles Z. Sabe (Kəlama)	WL-L3
Cerīma	Numerals 1-100	unknown	WL-C1
	West African Savannah (WAS) ⁴³ wordlist	Kiliyobas Shaibu Danbera	WL-C2
Deeləmə	WAS wordlist (basic vocabulary)	D'Daniel A. Salomon	WL-D1
	WAS wordlist (cultural vocabulary)	D'Daniel A. Salomon	WL-D2
Gvyuma	WAS wordlist	Michael Jamthi, Williams Zalson	WL-G1
		Eli Filibus, Jessey Amos Wala, Malam Husseini Hanábi	WL-G2
Gwaandama	WAS wordlist	Matinja Kalmani Ahmalo ⁴⁴ , Charles Z. Sabe, Haskainu T. Lethele ⁴⁵ and others (collected by Hiraki)	WL-N1
	Various words (including loanwords)	Francis T. Hiraki	WL-N2
		Francis T. Hiraki, Charles Z. Sabe	WL-N3

Table 4. Overview of wordlists

⁴² Compare <http://comparalex.org/index.php?page=stdlist&id=19> [accessed 2024-06-21].

⁴³ Wordlist developed in 1988/1989 as part of the research project 'Research on Cultural Vocabulary in Gur and North-Western Adamawa Languages' (Kleinewillinghöfer n.d.).

⁴⁴ Born in Nyuwar, raised in Zagun, 45 years old at the time of the interview.

⁴⁵ Born and raised in Nyuwar, 36 years old at the time of the interview.

In addition to the wordlists, lists with short clauses in the varieties Gwaandama and Guyuma shed light on various aspects of the grammar, such as the use of adjectives and the formation of possessive constructions. In addition, there is a list of all Gwaandama clauses used as examples in Hiraki (1986). These clauses were compiled into a list, which was subsequently revised and corrected by Sabe.

Variety	Content	Speakers	Source
Guyuma	Attributive possession	Williams Zalson (?)	S-G1
	Various clauses and phrases (e.g. noun phrases, possessive constructions, tense/aspect/mode)	Williams Zalson, Michael Jamthi	S-G2
Gwaandama	Various clauses from Hiraki (1986) with corrections by Sabe	Francis T. Hiraki, Charles Z. Sabe	S-N1
	Tense/aspect/mode	Charles Z. Sabe	S-N2
	Various clauses and phrases (e.g. noun phrases, possessive constructions, tense/aspect/mode)	unknown	S-N3
	Attributive possession, genitive, demonstratives	unknown	S-N4

Table 5. Overview of lists including clauses and phrases

Besides the aforementioned wordlist and lists of clauses and phrases, interviews (often rather in the form of a conversation between two or more people) and songs were collected in the variety Gwaandama. These were carried out and recorded by native Gwaandama speakers Francis T. Hiraki, Sarakuna Samu and Haskainu T. Lethlele on behalf of Ulrich Kleinewillinghöfer in the early 1990s. The interviews and songs were recorded on cassettes⁴⁶, with side A and B each, and written down in four foolscap A4-sized booklets by Hiraki. All cassettes available to me were digitised, except for those with poor sound quality, and about half of the text was typed up. An approximate interlinearisation⁴⁷ and a free translation into English were also provided in the booklets, which proved to be a valuable aid in analysing the Gwaandama data. Apart from their relevance for a linguistic description, as in the present thesis, the interviews and songs also offer significant insights into the history and culture of the Gwaandama and the Nunguraba in general (cf. §1.2). The following table summarises the content of the interviews and songs. The citation codes correspond to the booklet in which they occur:

Variety	Content	Source
Gwaandama	History and culture (cassette 1)	B-N1
	History and culture continued, songs (cassettes 1 to 4)	B-N2
	Songs, history (cassettes 5 to 8)	B-N3
	Songs, history continued, <i>swaraha</i> (cassettes 8 to 10)	B-N4

Table 6. Overview of booklets with interviews and songs

⁴⁶ In a letter to Ulrich Kleinewillinghöfer on 11th March 1992, Francis T. Hiraki mentions 22 cassettes. However, only 10 are available to me.

⁴⁷ E.g. not always one-to-one word correspondences.

The following table gives an overview of the interviewees, including their age at the time of the interviews, place of origin and the topics discussed:

Interviewees	Topics of the interviews	Source
Baba ⁴⁸ Bakara (from the village Tsuaku, about 105 years old, then “one of the oldest man alive at Nyuwar. So much that he hardly steps away from his house. He was interviewed in his house”)	origin of Nɔngvra (Gwaanda) people; migration routes and reasons for migration; kinship groups: origin, characteristics, forbidden fruit and animals, joking relations; relationships and wars with neighbouring ethnic groups	B-N1
Baba Sule (“The Great Hunter” [B-N2], about 78 to 80 years old, had lived long with his grandfather who taught him about the culture of the Gwaandaba)	trade and craftsmanship; arrival of the Europeans; politics and culture of the Gwaandaba	B-N1, B-N2
Baba Dzirwi (about 75 years old, flutist)	wars and disputes	B-N3
Group of women (among them Nachi Chawi-Gudzuabla, Yegra and Gədzali)	wars and disputes	B-N4

Table 7. Interviews in B-N1 to B-N4

Booklets 2 to 4 partly contain songs and dances. Hiraki categorises the songs into ‘songs’ and *swaraha*, with the latter being compared to poetry due to its short lyrics, frequent repetitions and “rich and beautiful” [B-N4] language. The content of the songs and *swaraha* is similar, and they are often performed at special occasions, such as the end of the farming season, festivities or hunting. Others are referred to as “satirical songs” [B-N2], in which “[t]he singer casts ridicule on the folly he sees in people’s behaviours, conventions etc.” [B-N4]. Alternatively, they are “abusive songs [...] sung either to scold, mock at, rebuke or expose the bad things of the opponent. They are not meant to insult or hurt one’s feelings [...but rather] for correcting social ills” [B-N4]. Yet other songs and *swaraha* “express people’s sorrows and disappointments in life, especially as it relates to poverty” [B-N2].

Different people or groups sang and played the songs and *swaraha*, as the following table demonstrates.

⁴⁸ Baba, meaning ‘father’, is used as a respectful form of address.

Singers		Source
Fela Sarki Juji, Hubi Nehemiah Bakara (both between 45 and 50 years old) and others		B-N2
Dzirwi (about 75 years old, playing flute ⁴⁹), Matinga (in his late 50s)		B-N3
Dzirwi (playing flute), Matinga, Mrs Bakara (about 80 to 85 years old, wife of one of the oldest men in town), Mama Chakambu (about 79 to 83 years old, sister of Mrs Bakara), Dukəlati ⁵⁰ (about 79 to 83 years old), Chunyu (about 65 to 68 years old)		B-N3
Nehemiah Bakara, Jatau Dibi, Manti Zullum, Asiya Dibi, Liatu Kenan, Sallnatu Kalman,	Haruna Galmaka, Waba Jalthago, Bedan Pisagih, Naawam Jwamata (all between 45 and 80 years old)	B-N4
Nehemiah Bakara, Manti Zullum,	Laitu Kenan ⁵¹ (all between 45 and 80 years old)	B-N4

Table 8. Singers in B-N2 to B-N4

⁴⁹ The flute is described as “one of the musical instruments used in p̄ȳəwə music during the big annual festival” [B-N2]. Dzwiri “is the only fellow who can blow this type of flute” [B-N2].

⁵⁰ The handwriting in this word is hard to decipher.

⁵¹ Or Liatu (see row above).

1.3.4 Field data collected by the present author

Field data by the present author was mainly collected during two research visits in Nigeria and through online interviews. All examples without a reference are from this field data (as opposed to published materials cited with parenthesis and unpublished data collected by Kleinewillinghöfer cited in square brackets).

The first research visit took place from March to April 2019 and the second from January to February 2020. They were financed by the Dr. Elisabeth Gros Foundation and the Inneruniversitäre Forschungsförderung of the Johannes Gutenberg University Mainz. Due to political instability and terrorist attacks in Gombe and Adamawa provinces, the German Foreign Office had imposed travel restrictions for these areas. Under these conditions, the Johannes Gutenberg University did not permit direct travel to the Nvngvra area for staff members and doctoral students. Thanks to an invitation from Matthew Harley, the then head of the Department of Linguistics and Translation at the Theological College of Northern Nigeria (TCNN) in Jos, I conducted my research there.

Because, as mentioned above, data was already available (mostly for Gvyvma and Gwaandama), the purpose of the research visits was to close specific gaps in the material. The time frame and the location were exactly right for this purpose as many Nvngvraba live in Jos and are even organised in an association to help and support each other. I attended two of their meetings and met with some of the elders selected by the association's committee several times. They were selected mainly based on their language skills: all of them grew up in the Nvngvra area and only moved to Jos as adults due to their professional occupations. They speak three out of the five varieties: Deeləmə, Gvyvma⁵² and Gwaandama. Besides data collection with members of the association, most data was gathered with TCNN students who grew up in the Nvngvra area and whose mother tongue is Deeləmə and Gvyvma. They were studying theology at TCNN during the time of the research and lived with their families in or near the Nvngvra area during the semester holidays.

The table below lists all the Nvngvraba participants in the study according to their spoken variety. The speakers who contributed the majority of the data are highlighted in grey.

⁵² One of the Gvyvma speakers later revealed that he is actually a Cerīya, not a Gvyvya. The data he provided is very similar to that of the Gvyvma speakers.

Variety	Name	Details
Cerīma	Samuel Jackson	lives in Jos
Deeləmə	Anuhu Melton Sundu	born and raised in Sabon Layi Jessu, so was his father, his mother is Dadiya but speaks Deeləmə at home, lived in Tallase (Gombe State), lives in Gombe now, his wife speaks Kilba (Chadic)
	Reverend Nore Kachubi	from Jessu, lives in Jos
	Reverend Nahor Samaila [†]	from Jessu, lived in Jos
	Salihu George Bawe	from Dumna, lives in Jos
	Haggai Mgwandi	from Dumna, lives in Jos
Gvyuma	Gayus Gulkawi	born and raised in Gvyok, lives in Numan (Bacama area) for around 10 years, speaks Nungurama with his wife and family
	Ezekiel Galangu Benson	born in Numan, raised in Lafiya, also lived in Gandauri and Gwalura (Cerī area) for two years, parents are both Gvyuma speakers, his wife speaks Nungurama (mother Deeləmə speaker, father Yoruba)
	Abel Kakuru Kake	lives in Jos
	Odal Kaliwa	from Chikila ⁵³ , lives in Jos
	Justina Akaa	from Bobini, lives in Jos

⁵³ Although Chikila belongs to the Cerīma variety area, Kaliwa identifies as a Gvyuma speaker.

	Reverend Dr. Peter Bartimawus	Bishop of the Congregations of the Lutheran Church of Christ in Nigeria (LCCN) in Northwestern Adamawa State (Gongola Diocese)
	Golfa Nelson Jebes	from Gvyuk, lives in Jos
	Rev. James Reynolds	born in Bobini, raised in Bobini and close to Gvyuk, Provost of TCCN, lives in Jos
Gwaandama	Tafiyar Juwur [†]	born in Nyuwar, lived in several Nungura towns before moving to Jos
	Jones Kilau	from Nyuwar, lives in Jos

*Table 9. Overview of language assistants
(main interview partners are highlighted in grey)*

All interviews and data collection sessions were audio recorded with the speakers' permission. Some recordings contain the full session, while others only include the results that were discussed in length beforehand. A total of 161 files with varying durations, ranging from one minute to an hour, were collected. Handwritten notes were taken during the interviews to document the speakers' statements. This served two purposes: first, it allowed the speakers to correct the notation of the words and phrases⁵⁴, and second, it provided a helpful reference for later analyses. They made it easier to review the recordings afterwards, transcribe the notes and answers and make any necessary corrections or additions. Whenever possible, I reviewed the recordings immediately after the interviews to conduct a preliminary analysis and prepare for subsequent interviews (cf. Kießling 2002: 47f.). The data collection sessions primarily focused on linguistic topics. However, related issues such as differences between varieties, the language taboo and geography were also discussed in the interviews.

In addition to the data collection during the two trips to Nigeria, contact was maintained with a few Nɔ̀ngvɔ̀ra speakers via e-mail, WhatsApp and phone calls on Skype for Business. The calls on Skype for Business were recorded with the permission of the speakers. Expanding the corpus was not the primary objective of this type of data collection. Rather, the main focus was to check and, if necessary, revise existing data and clarify open questions that arose during the analysis of the data. Skype for Business calls were helpful, although the sound quality was often poor. Therefore, for questions regarding phonetics and phonology, I asked the speakers to send voice notes on WhatsApp. These recordings proved to be of good quality and were therefore very useful for determining tone, for example.

Although recording basic vocabulary is normally the first step in linguistic field research (cf. e.g. Kießling 2002: 32 and Kastenholz 2002: 68), it was only marginally necessary in my research as extensive wordlists of Nɔ̀ngvɔ̀rama varieties were already available. Because the main interviewees speak the three varieties Deelɔ̀mɔ̀, Gvɔ̀vɔ̀ma and Gwaandama, and much of the available material was on Gwaandama and Gvɔ̀vɔ̀ma, I aimed to obtain comparable data to enable a better understanding of the Nɔ̀ngvɔ̀rama cluster as a whole, rather than of one single variety. The material described in §1.3.2 and §1.3.3 was frequently used as a starting point, e.g. for retellings of narratives⁵⁵ and a picture story⁵⁶. Questionnaires, particularly those of Dahl (1985: 198ff.) and Wiesemann (n.d.), were used for some topics on tense, aspect, and mood, and were partly adapted for my purpose. Paradigms and clauses with slight deviations were elicited.⁵⁷ Following Kastenholz (2002: 67), elicitation in this context is understood as translations from the meta language English into one of the Nɔ̀ngvɔ̀rama varieties, substitutions of elements in a clause and the Nɔ̀ngvɔ̀ra speaker's exemplary use of a word or grammatical form in a

⁵⁴ Apart from one of the speakers, the speakers were not familiar with the phonetic alphabet I was using. Nevertheless, their remarks were helpful in preventing misunderstandings.

⁵⁵ Taken from a compilation of folk tales (Anonymous 1975) and a story printed in Sabe (2014).

⁵⁶ "Frog, where are you?" by Mercer Mayer (2003).

⁵⁷ This procedure has (hopefully) reduced the problems that can arise during elicitation (cf. Kießling 2002: 44) since the starting points for data collection were often naturally produced utterances.

clause.⁵⁸ Freely spoken texts were also recorded to a lesser extent and then segmented with the help of the speakers, in the manner described by Kastenholz (2002: 69ff.). Kastenholz (2002: 67) states, that the main source for a language description should be text corpora. However, he acknowledges that data from interviews, i.e. elicitation, is commonly used for two main reasons. Firstly, it is rare that paradigms of inflected or derived word forms can be extracted solely from text corpora, even if they are of a substantial size. Secondly, without knowledge of certain structures of a language, which can be obtained through elicitation, working on texts and translating them can become very challenging. Therefore, it is a crucial aspect of any linguistic analysis, not only at the beginning but throughout the field research (cf. e.g. Kießling 2002: 43, 45 and Tröbs 1998: 24).

As a result, the analysis of the varieties Gvɔɔma and Gwaandama is roughly equally based on both elicited material and free spoken text (given that many texts are available in the published material and in Kleinewillinghöfer's unpublished material, cf. §1.3.2 and 1.3.3). The analysis of Deeləmə, on the other hand, mainly relies on elicited data.

If not stated otherwise, any statements about 'Nɔŋɔrama' in chapters §2 to §7 apply to Deeləmə, Gvɔɔma and Gwaandama collectively. Further research is needed to determine if the statements made about 'Nɔŋɔrama' can be extended to the other two varieties Ceɾĩma and Kɔlama.

1.3.5 Notation conventions

The multitude of sources in a non-standardised language naturally also entail a multitude of orthographic possibilities. To enable comparison of the data from different sources, I have unified the notation. Therefore, all examples in this thesis have been changed to a notation that follows the recommendations of the International Phonetic Association (2015). An exception is the palatal approximant (cf. §2.1.1.4), other exceptions are indicated in the examples.

The following table provides an overview of the regular changes made for each source. An empty field indicates that the phoneme is either absent in the respective source or is represented by the same grapheme.

⁵⁸ Cf. Kießling (2002: 39ff.) for different types of elicitation.

Notation in this thesis	Kleine-willing-höfer (2014a)	Sabe (2014)	Sabe (1995)	Sabe (1989)	Hiraki (1986)	Newman/Newman (1974, 1977a, 1977b), B. Newman (1976, 1978), J. Newman (1978) ⁵⁹	Institute of Linguistics (1975), (Wycliffe Bible Translators n.d.) ⁶⁰ , Anonymous (1975), Longuda Bible Translation Society (1978)
ɪ		ə, <u>i</u> ⁶¹	i	i, e, ə	i, e, ε	ɪ, e, ə, ε, ɜ	i, ə
i						ɪ	
ʊ		<u>u</u>	u	u	u	u, ʉ	u
ə		<u>ə</u>	<u>e</u> , e ⁶²	<u>e</u>	e, e	ʌ	
ɔ		o	o	o	o	o	o
a		a				ʌ	
<u>d</u>	<u>d</u> , dh	<u>d</u>	ḏ	ḏ	d	ḏ	
t		th	th	th	t	ṭ, t ^h	th
c		tʃ		ch	ch	č	
ʝ	j	j	j	j	j	dʒ, j	j
ɲ	ny	ny	ny	ny	ny	ɲ, ny	ny
r						ĩ, ř	
Ṽ	Ṽ, Ṽn	Vng	Vṅ	Vn	Vn	Ṽ, Ṽ	Vng

Table 10. Overview of the regular changes made in the published sources

⁵⁹ These sources present Nvngvrama examples in various ways, depending on the respective objective of the author(s): They are “in phonetic form, in phonemicised form, and in orthographic form” (Newman/Newman 1977b: 49).

⁶⁰ A vowel <i> occurs frequently in the Bible translation. It most probably applies to both /ɪ/ and /ə/.

⁶¹ Sabe (2014: 30f.) also mentions a vowel /i/. He provides several examples of minimal pairs. However, he uses the Schwa as a grapheme for both [i] and [ə], which causes confusion. Additionally, certain symbols are used interchangeably for probably the same phoneme, such as *i* and *ɪ*, *ɪ* and *ɪ* as well as *ə* and *ə*. To improve clarity, the examples from Sabe (2014) were compared with other sources, particularly the wordlists, whenever possible.

⁶² Contrary to his proposal from 2014, Sabe (1995: 17f.), in his thesis from 1995, distinguished two Schwa sounds (orthographically written as <e> and <ə>, but phonetically both as [ə]) that he places into the two different vowel sets “lax” and “tense” (i.e. [+ATR] and [-ATR]).

Notation in this thesis	[S-N1] ⁶³	[S-N2]	[S-N3]	[S-G1, S-G2]	[WL-D1, WL-D2]	[WL-G1, WL-G2]	[WL-C2]	[WL-N1, WL-N2, WL-N3]
ɪ	i, e	e	i, e, ə	i	i, e	i, e, ə	i, ə	i, e, ə
ʊ	ʊ	ʊ	ʊ	ʊ	ʊ	ʊ	ʊ	ʊ
ə	e, ə	e		e, i	a			
ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ	ɔ
ɖ	d		d			dh	dh	<u>dh</u> , dh, ɖ, ð
t	th	th	th	th	th, ð	th	th	th
c	c	c	c	c	c	c	ch	ch
ʝ	j	j	j	j	j	j	j	j, dʒ
ɲ	ny	ny	ny	ny, ŋ	ny	ny	ny	ny
ʃ	-	-	-	-	sh	sh	sh	sh
k					kh	kh		kh
Ṽ	Vn	Vŋ	Vŋ	Ṽ, Vng, Vñ		Vŋ	Vŋ	Ṽ, Vn, Vŋ, Ṽn

Table 11. Overview of the regular changes made in the unpublished sources

⁶³ This document presents the corrected words and phrases from Hiraki's (1986) work, as revised by Sabe in 1992. Only the notation from the corrections is shown in this column, while the notation in Hiraki is presented in the previous table.

1.3.6 Presentation and organisation of sample clauses

This thesis provides numerous sample clauses to illustrate the proposed analyses. The examples presented here were primarily selected based on their relevance and unambiguousness to the described phenomenon. Whenever possible, examples were taken from freely spoken texts. Phrases and clauses are consistently presented in the same format:

- Name of variety**
- (1) *Text* *in* *Nvngvrama*
Interlinearisation of text
'English translation' (lit. translation) (source)

In the heading of each example, the name of the respective variety is provided. If there are multiple consecutive examples from the same variety, only the first example is labelled. Examples in subsections dedicated to a single variety are not headed with the name of the variety. Each example is numbered on the left-hand side (in brackets). The text next to it presents a phonological (not phonetic) realisation of one of the Nvngvrama varieties (cf. §1.3.5 for changes made to unify the data and §2 for an overview of phonemes and allophones), written in italics. Tone is only marked if available in the respective source. Morphologically complex lexemes are segmented by hyphens. The Nvngvrama text is interlinearised according to the Leipzig Glossing Rules⁶⁴, relevant abbreviations are listed in §iv. The final line provides a free translation of the phrase or clause (sometimes followed by a literal translation for better understanding of the constructions), along with the source (cf. §1.3.2 to 1.3.4 for citation conventions in this thesis). The translations given in the Gwaandama texts [B-N1 to B-N4] are more often than not approximates. Therefore, I have replaced them with more literal translations.

1.4 Theoretical foundations

1.4.1 Polylectal grammar

As far as linguists are concerned, the desirability of a polylectal grammar is fairly obvious – one wants as true and complete a picture of the language as possible. (Kropp Dakubu 2019: 257)

Grammatical studies of African languages often focus on a single variety or dialect.⁶⁵ However, the study at hand takes a comparative approach by describing salient grammatical structures and highlighting the similarities and differences of the varieties. There are three reasons for this comparative approach. First, most publications on Nvngvrama (§1.3.2) and the data collected by Kleinewillinghöfer (§1.3.3) distinguish five varieties, but mainly focus on either Guyuma or Gwaandama. Thus, there is literature on two different varieties of various topics, but no systematic comparison. Second, the nature of my research (cf. §1.3.4 for details) in combination with the existing data (cf. §1.3.2

⁶⁴ <https://www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf> [accessed 2024-06-21].

⁶⁵ But see e.g. Fleisch (2009), Pratchett (2017) and Nassenstein (in press).

and 1.3.3) suggested a comparative approach. Limiting the focus to a single variety would have resulted in the exclusion of a significant amount of research data and published material from this thesis, which would have been unfortunate given the overall lack of knowledge on ‘Adamawa’ languages. However, it is important to acknowledge that this situation has undergone significant changes in recent years, resulting in a more abundant availability of data. The description in this thesis has the caveat that it excludes the two varieties Cerīma and Kɔlɔma due to insufficient data: neither the published literature or Kleinewillinghöfer’s unpublished data, nor the field research conducted for this description (cf. §1.3) provided sufficient data to justify a description of these two varieties. Third, during the work on this thesis, it became apparent that the analysis and description of certain phenomena would have yielded a different outcome had only one variety been considered (cf. Bickerton 1972/1973: 35). For instance, without the comparative approach of the tense and aspect system, a binary distinction (perfective/factative vs. imperfective) would have been proposed, rather than a ‘default’ basic form that can be modified by different means (cf. §6 for details). On occasion, the analysis of one variety proved instrumental in understanding a particular phenomenon in another. If only one variety was described, some phenomena would have been omitted entirely, as they may be less salient in one variety than in another.

Thus, this thesis provides a ‘polylectal grammar’ of Nvngvrama. This term⁶⁶ refers to “grammars that attempt to account for variety in a language whether geographical, social, or idiolectal” (Kropp Dakubu 2019: 254).⁶⁷ To my knowledge, the term is only used in a few works, such as the language descriptions on Royal Thai (Diller 2006) and Senhaja Berber (Gutova 2021) or in a workshop titled ‘Towards polylectal grammars of African languages’, which took place in Hamburg from 27 to 29 November 2009. Unfortunately, I could not access the workshop program. However, I do have the documents for two of the talks and an article that resulted from the workshop (Caron 2009, Kießling 2009, Kropp Dakubu 2019). The latter mentions four concepts for describing different approaches to language description proposed by the workshop organisers (Kropp Dakubu 2019: 254, 256, 264, 272). The ‘hierarchical model’ depicts the variety used as the standard for writing purposes, with reference made to other dialects where possible. In a language description following the ‘additive-sequential model’, the varieties are described separately in different chapters, while in the ‘additive-contrastive model’, the different varieties are included and compared in the same chapter. The ‘dynamic model’, which includes “historical, environmental, and social factors as far as they can be determined” (Kropp Dakubu 2019: 262), is not entirely clear to me.

Kropp Dakubu (2019: 272) suggests that

⁶⁶ Sometimes also ‘panlectal grammar’, e.g. Kießling (2009).

⁶⁷ The term has been used with varying meanings in the past, especially in terms of presuppositions and objectives (e.g. Bickerton 1972/1973) and in that sense has even been called “a theoretical dead-end” (Chambers/Trudgill 2009: 43) because it originated in structuralist linguistic theory and was later introduced into generative theory.

a polylectal grammar must be tailored to the circumstances of the particular language. If dialect variation does not seriously inhibit intelligibility and the systems governing variation are reasonably clear, a version of the Additive-Contrastive model, with a particular topic covered in one chapter in which all the varieties are compared, should be feasible.

In line with this, the description of Nungurama uses a combination of the ‘additive-contrastive model’ and the ‘additive-sequential model’. The chapters always provide an overview of the given grammatical issue in all three varieties before addressing any differences in separate subchapters, when necessary.⁶⁸ The varieties are consistently ordered as Deeləmə, Gyyuma and Gwaandama. The alphabetical order of the varieties does not provide any indication of quantity or quality, nor does it reveal any underlying diachronic developments. For example, it does not show which varieties have undergone more recent changes compared to others that may have been more conservative in terms of lexical or grammatical changes.

1.4.2 Functional-typological framework

This thesis adopts a functional-typological approach to describe grammar (cf. Croft 2003: 2). Functional grammar examines the connection between form and function, aiming to “explain language structure in terms of language function” (Ramat 2002: 2). In other words, it attempts to derive the rules and structures of a language from its communicative functions (Smirnova/Mortelmans 2010: 13). The functional approach focuses on language as a means of communication, considering both the speaker and the hearer (cf. Auer 2013: 35f.). Therefore, language use, as in actual spoken language, as opposed to what a speaker can construct, is fundamental for a grammatical description (cf. Tröbs 1998: 21). As Du Bois puts it: “grammars *code* best what speakers do *most*” (Du Bois 1985: 363, cited in Auer 2013: 38). Bybee (2007: 5) highlights the importance of word and structure frequency in language study. The thesis at hand follows the principle of basing grammatical descriptions on usage, drawing from spoken language in discourse wherever possible. However, the data comprises a mixture of texts, including stories, historical narratives and interviews, as well as elicited paradigms (cf. §1.3). This reciprocal relationship is crucial: without the paradigms, a comparison and description of the three varieties would not have been possible. However, the results of the paradigms were always cross-checked against the texts and the examples selected to illustrate the analysis were drawn from both discourse and elicited material.

Functional grammar, in contrast to generative grammar, considers language change and variation. Auer (2013: 35) explains that generative grammar treats and describes an abstract system, while functional grammar focuses on language use. This is evident in a polylectal grammar, where varieties or dialects of a language show similarities and differences at all levels, including phonetic, morphosyntactic, and semantic. However, the boundaries between these language varieties cannot be clearly determined as they are

⁶⁸ Similar approaches can be found for example in Zorc and Nibagwire (2007) and Pratchett (2017).

fluid and do not always exhibit ‘ideal language use’ (Smirnova/Mortelmans 2010: 13f.). One factor contributing to this is language variation, where speakers freely choose from a set of different options. This can lead to grammaticalisation, which is “the development from lexical to grammatical forms and from grammatical to even more grammatical forms” (Heine/Kuteva 2004: 2). As grammaticalisation is a gradual process, a synchronic comparison can reveal various stages of this process. However, it may not always be easy to determine which form is more grammaticalised (cf. Heine/Kuteva 2004: 5f.). Therefore, this thesis only discusses grammaticalisation processes or relations between lexical items and grammatical forms if they are clearly observable from a synchronic perspective.

The typological approach involves two subsequent steps: categorising languages based on a specific “linguistic property” (Song 2018: 2), and then allowing “for generalization across highly divergent languages, since the functions [...] may be said to be universally recognizable” (Hengeveld 1992: 29). To contribute to “typological generalizations” and “cross-linguistic comparison” (Croft 2003: 1), the various topics of this thesis are based on typological works by different authors. Some of them have influenced this work considerably, including Aikhenvald (2016), Anyanwu (2008), Dryer (2007a, 2007b, 2013a, 2013b), Givón (2001a), Güldemann and Fiedler (2019), König and Siemund (2007), Kroeger (2015), Payne (1997) and Schachter and Shopen (2007), among others. The relevant literature is explicitly stated in the respective chapters.

2. Phonological sketch

2.1 Segmental phonology

2.1.1 Overview of consonants

This chapter gives an overview of the consonant phonemes in the three varieties. They are presented in Table 12 for Deeləmə, Table 13 for Gvyvma and Table 14 for Gwaandama. Instances of phones with unclear phonemic status are placed in parentheses.

Deeləmə	labial		dental/ alveolar		postalveolar	palatal		(post-)velar	
plosive	<i>p</i>	<i>b</i>	<i>t</i>	<i>d</i>		<i>c</i>	<i>ʃ</i>	<i>k</i>	<i>g</i>
labialised	<i>p^w</i>	<i>b^w</i>	<i>t^v</i>	<i>d^v</i>		<i>c^w</i>	<i>ʃ^w</i>	<i>k^w</i>	<i>g^w</i>
fricative	<i>f</i>		<i>s</i>	<i>z</i>	<i>f</i>			<i>h</i>	
labialised			<i>s^w</i>	<i>z^w</i>	<i>f^w</i>				
nasal		<i>m</i>		<i>n</i>			<i>ɲ</i>		
labialised		<i>m^w</i>		<i>(n^w)</i>					
continuant	<i>w</i>			<i>l</i>			<i>y</i>		

Table 12. Consonant inventory in Deeləmə

Gvyvma	labial		dental/alveolar		palatal		(post-)velar	
plosive	<i>p</i>	<i>b</i>	<i>t</i>	<i>d</i>	<i>c</i>	<i>ʃ</i>	<i>k</i>	<i>g</i>
labialised	<i>p^w</i>	<i>b^w</i>	<i>t^v</i>	<i>d^v</i>	<i>c^w</i>	<i>ʃ^w</i>	<i>k^w</i>	<i>g^w</i>
fricative	<i>f</i>		<i>s</i>	<i>z</i>			<i>h</i>	
labialised			<i>s^w</i>	<i>z^w</i>				
nasal		<i>m</i>		<i>n</i>		<i>ɲ</i>		
labialised		<i>m^w</i>		<i>(n^w)</i>		<i>(ɲ^w)</i>		
continuant	<i>w</i>			<i>l</i>		<i>y</i>		

Table 13. Consonant inventory in Gvyvma

Gwaandama	labial		dental	alveolar	palatal		(post-)velar	
plosive	<i>p</i>	<i>b</i>	<i>t</i>	<i>d</i>	<i>c</i>	<i>ʃ</i>	<i>k</i>	<i>g</i>
labialised	<i>p^w</i>	<i>b^w</i>	<i>t^v</i>	<i>d^v</i>	<i>(c^w)</i>	<i>ʃ^w</i>	<i>k^w</i>	<i>g^w</i>
affricate				<i>t^s</i>	<i>d^z</i>			
labialised				<i>(t^s)^w</i>	<i>(d^z)^w</i>			
fricative	<i>f</i>			<i>s</i>			<i>h</i>	
labialised				<i>s^w</i>				
nasal		<i>m</i>		<i>n</i>		<i>ɲ</i>		
labialised		<i>m^w</i>				<i>ɲ^w</i>		
continuant	<i>w</i>			<i>l</i>		<i>y</i>		

Table 14. Consonant inventory in Gwaandama

⁶⁹ For the difference in notation to the voiceless dental plosive, cf. §2.1.1.1.

While there is a significant overlap between the varieties, there are also differences, which will be discussed in turn according to manners of articulation.

2.1.1.1 Plosives

The unvoiced bilabial plosive /p/, realised as [p^h], is rare and restricted to word-initial position.⁷⁰

Deeləmə

pìsá [p^hìsá] ‘to shoot’

Gvyuma

pòlá [p^hòlá] ‘thigh’

Gwaandama

pwáláká [p^{hw}álák^há] ‘wing’ [WL-N1]

In contrast to /p/, the voiced bilabial plosive /b/ is very widespread. It is realised as [b^ʰ] in morpheme-final position and [b] in all other positions.

Deeləmə

bálkà [bálk^hà] ‘stick’
ɟíb [dʒíb^ʰ] ‘to beat’

Gvyuma

bùlé [bùlé] ‘bag’
háɓ [háɓ^ʰ] ‘to catch’

Gwaandama

bírá [bírá] ‘many’
mwàb [m^wàb^ʰ] ‘to build’

The following examples demonstrate that /b/ is unreleased in morpheme-final position unless it is followed by a vowel. Since the allophones show a clear complementary distribution, the unreleased plosive is not indicated in other examples throughout this thesis.

	Deeləmə		
(2)	<i>zwá-b-à</i>	<i>zwá-b^ʰ</i>	<i>sí-bà</i>
	child-B-REF	child-B.2	new-2
	‘children’	‘new children’	

⁷⁰ There are only two exceptions in the data in which /p/ occurs as an onset of the second syllable, which happens to be the prosodically prominent syllable (cf. §2.2.3): *yàpílwà* / *yàpílwá* ‘sheep’ (in Deeləmə and Gwaandama respectively) and *gàpǔwà* ‘hyena’ (Gwaandama, [WL-N1]). In Gvyuma, all instances of /p/ word-medially are loans, e.g. *lipíràwá* ‘needle’ (from Dera *libàrà*) and *tàpáwá* ‘tobacco’ (from Hausa *tābā*) (Newman/Newman 1977b: 32). Hausa words are taken from Newman’s (2007) Hausa-English dictionary, unless stated otherwise.

- (3) **Gvyvma**
zwà-b-á child-B-REF 'children' *zwàb`-tá* child-TA.REF 'childhood'
- (4) **Gwaandama**
mwàb-á build-FV 'building a house' *tswá-w-á* house-W-REF *mwàb`* build 'built a house' *tswá-w-á* house-W-REF

Unreleased plosives also occur in other 'Adamawa' languages, usually for most or all plosives, for example in Mambay (Anonby 2008: 45, 54f.), Kyak (Harley 2020: 380), Kam (Lesage 2020: 124f.) and Baa (Möller Nwadigo n.d.: 49f.). In yet other languages, plosives are described as being voiceless in word-final position, such as in Waja (Kleinewillinghöfer 1991: 24) (cf. the Chadic language Tangale (Kidida 1993: 18)).

The relative scarcity and restriction of /p/, in comparison to /b/, is called the 'missing /p/ pattern'. This pattern is almost exclusively found "in Africa north of the equator, especially around the margins of the Sahara desert, in languages from all three of the major language families present in the area" (Maddieson 2013). Maddieson considers it to be an areal feature that could have been caused by pronunciation changes or through social factors, such as the dominant role of Arabic, which also exhibits the 'missing /p/' (cf. Clements/Rialland 2008: 65ff.).

The unvoiced dental plosive /t/ is realised as [t^h], i.e. with aspiration and the tongue tip touching the back of the teeth (cf. Newman/Newman 1977b: 29).⁷¹ Both aspiration and dental pronunciation are not represented in notation as they regularly occur. The phoneme occurs morpheme-initially.

⁷¹ Nungvrama does not have an unvoiced alveolar plosive [t] or [t^h]. However, some texts in Gwaandama [B-N1 to B-N4] and a wordlist [WL-N1] differentiate between <th> and <t> (or <t̃> and <t̃>). This may suggest the existence of an unvoiced alveolar plosive alongside an unvoiced dental plosive. In the first Gwaandama text [B-N1], <t̃> is described as "flat t as in táá (rooms)"; it remains unclear what the author means by this. However, according to Sabe (1989: 11), there is no such phoneme. In addition, the difference between the two graphs is not consistently used, and many lexemes that are written with <t̃> in one source are spelled <th> elsewhere, e.g. *thau* in Sabe (2014: 37) but *táú* in [B-N1] for 'to finish' as well as *tham* in (Sabe 2014: 37) and *tám* in [B-N1] for 'to send', *nàtà* or *nàthà* in [WL-N1] for 'mouth'. The phone [t] is also present in loanwords, e.g. *tákàrdáwà* 'book' (Deeləmə), *sàkátàwà* 'bolt' (from Hausa *sakata*), *àkwàtìwà* 'box' (from Hausa *akwati*) and *káfintàwà* 'carpenter' (from English) [WL-N2] (Gwaandama). According to Newman and Newman (1977b: 29f., 68), the voiceless alveolar plosive [t] in Gvyvma is exclusively found in loanwords from Hausa and Dera. However, examples such as *bàkàtìwè* 'bucket' in their own data (Newman/Newman 1977b: 62) suggest that this extends to loanwords from other languages (in this case English). Additionally, there are a few sources, where certain words are spelled with <t̃> instead of <th>. These are mostly borrowed (Christian) terms, proper names and places, such as the following: *Yohana zi Baptistmayã* 'John the Baptist', *Nazaret* 'Nazareth', *Yesu Kristi* 'Jesus Christ' (Longuda Bible Translation Society 1978: 2, 5f.), *Bitrus* 'Petrus' (Wycliffe Bible Translators n.d.), *karatuwa* 'to read' (from Hausa *kàràtū* 'reading, learning (v.n.)') (Institute of Linguistics 1975: 1).

Deeləmə

<i>tàm</i>	<i>[tʰàm]</i>	‘to weep’
<i>tùmà</i>	<i>[tʰùmà]</i>	‘blood’

Gvyvma

<i>tíb</i>	<i>[tʰíb]</i>	‘short’
<i>tíká</i>	<i>[tʰíkʰá]</i>	‘tree’

Gwaandama

<i>tív</i>	<i>[tʰív]</i>	‘to talk’
<i>tàyàwà</i>	<i>[tʰàjàwà]</i>	‘locust’ [WL-N1]

Gwaandama also features a voiced dental plosive /ɖ/, realised as [ɖ] (cf. Sabe 1989: 5, 10, 1995: 13f., 2014: 34, [S-N1], [WL-N1])⁷², which only occurs morpheme-initially. As it is not present in Deeləmə or Gvyvma, the examples below are solely from Gwaandama.

Gwaandama

<i>ɖàwv</i>	<i>[ɖàwv]</i>	‘sharp’ [WL-N1]
<i>ɖílimká</i>	<i>[ɖílimkʰá]</i>	‘tongue’ [WL-N1]
<i>ɖí</i>	<i>[ɖí]</i>	‘we (excl.)’

The voiced alveolar plosive /d/ is realised as [d] without aspiration and without fronting of the tongue tip (cf. Newman/Newman 1977b: 29). It occurs in all three varieties morpheme-initially.

Deeləmə

<i>dákà</i>	<i>[dákʰà]</i>	‘road’
<i>dú</i>	<i>[dú]</i>	‘to cook’

Gvyvma

<i>dúlé</i>	<i>[dúlé]</i>	‘head’
<i>díb</i>	<i>[díb]</i>	‘to hit/beat/kill so.’

Gwaandama

<i>dálá</i>	<i>[dálá]</i>	‘wound’
<i>dúmók</i>	<i>[dúmókʰ]</i>	‘horn’ [WL-N1]

The Gwaandama data contains three minimal pairs⁷³ that demonstrate the contrast between /ɖ/ and /d/, confirming their status as distinct phonemes rather than allophones.

⁷² Gwaandama is the only variety among the three examined that has the phoneme /ɖ/. It is geographically closest to Tangale, a Chadic language, which also exhibits [t], [d] and [ɖ] (as well as implosive [ɖ]). [ɖ] is described as only occurring in the Shongom dialect of Tangale: “Whether the dental stop in Shongom is an ‘innovation’ or ‘remnant’, it is very difficult to say at this point” (Kidda 1993: 13).

⁷³ Minimal pairs in Nvngvrama here and throughout this thesis are primarily chosen based on their contrast and only secondarily for their parts-of-speech class. A minimal pair that does not belong to the same class is referred to as a “pseudo minimal pair” by Anyanwu (2008: 148). Anyanwu suggests that if no better minimal pair is available “then we have to make do with the best minimal forms that are available”.

Gwaandama

<i>dà</i>	‘to eat’	<i>dà</i>	‘to enter’ [WL-N1]
<i>dú</i>	‘to unload, transplant’	<i>dú</i>	‘to cook ⁷⁴ , boil (up)’
<i>díká</i>	‘to drive, ride, enslave’	<i>díká</i>	‘shirt, wrapper’ (Sabe 2014: 36), [WL-N1]

The phoneme /d/ has an allophone [r]⁷⁵, which is notated as <r> in the examples. While [d] appears word-initially, as shown above, [r] occurs in other positions, predominantly syllable-final. However, it can also be found at the beginning of syllables, provided that it is not the initial syllable of the lexeme.

Deeləmə	Gvɔvma	Gwaandama	
<i>wár.kà</i>	<i>war.ka</i>	<i>wàr.kà</i>	‘marriage’ [WL-G1, WL-N1]
<i>mwàr</i>	<i>mwàr</i>	<i>mwàr</i>	‘to grow’
<i>kú.rí.wà</i>	<i>kù.rù.wé</i>	<i>(wáyá)</i>	‘father’ ⁷⁶
<i>-rÁ</i>	<i>-rÁ</i>	<i>-rÁ</i>	‘on’

With the verb extension *-rÍ* (cf. §3.3.3.3) and the suffix *-rA* ‘on’ (cf. §3.8.3), [r] appears to be the underlying phoneme as [d] is more restricted, occurring only after /m/ and /l/.

Some deviations from the described distribution of the allophones [d] and [r] occur in the data. These deviations can mostly be explained by composition, reduplication in ideophones and integration of loanwords into Nvngvrama:

- [r] in lexeme-initial position

Gvɔvma		
<i>ràgáwá</i>	‘forked stick’	(Newman/Newman 1977b: 35), possibly from Hausa <i>rāgàdā</i> ‘to poke at something’
<i>rogowe</i>	‘cassava’	[WL-G1], from Hausa <i>rōgō</i>

Gwaandama

<i>rédìòlè</i>	‘radio’	(Sabe 1995: 8), from Hausa <i>rēdiyò</i>
<i>rèfríwà</i>	‘referee’	[WL-N2], from English
<i>rèkéká</i>	‘sugar-cane’	(Sabe 1995: 8), from Hausa <i>ràkē</i>

- [d] in word-medial position

Deeləmə

<i>brèdílà</i>	‘bread’	from English
<i>dùndù</i>	‘very dirty’	ideophone with reduplication

⁷⁴ In [WL-N1] ‘to cook’ is *dzúr*.

⁷⁵ Newman and Newman (1977b: 53) distinguish between a voiced alveolar trill and a voiced alveolar flap in Gvɔvma. The former is used as a syllable coda, while the latter is used as a syllable onset. This distinction is not apparent in my own data.

⁷⁶ *kurù* (pl. *kuruwà*) means ‘priest, religious specialist’ in Waja (Kleinewillinghöfer 1991: 12).

Gyɔɔma

<i>tákàdàwà</i>	‘book’	from Hausa <i>takàrdā</i> ‘paper’
<i>dùndùmá</i>	‘dream’	compound of <i>dùná</i> ‘to see’ and <i>dùmá</i> ‘sleep’

Gwaandama

<i>àdáká</i>	‘club, machete’	[WL-N1], from Hausa <i>àddā</i> ‘machete’
<i>dzùndúwá / kùlgùdúwà</i> ⁷⁷	‘mosquito, fly / vulture’	[WL-N1], compound with <i>dúwá</i> (meaning unknown)

In this thesis, the allophones of /d/ are represented by <d> and <r> respectively, as the underlying rules and diachronic developments of compound words are not always straightforward.

The occurrence of [d] and [r] as allophones is a common phenomenon in ‘Adamawa’ languages, although they do not always have the same complementary distribution (cf. for example Baa (Möller Nwadigo n.d.: 48) and Samba-Duru languages such as Pèdè (Kastenholz 2020: 353), Kolbila (Littig 2016: 45) and Lɔŋto (Kleinwillinghöfer 2024: 14, cf. 29)).

The unvoiced palatal plosive /c/ is realised as [tʃ]. Phonetically, it can be regarded as an affricate, which is an “[alveolar] plosive with a [postalveolar] fricative offset” (Anyanwu 2008: 61). However, phonologically it is seen as a plosive since it fits into the plosive row (see consonant chart above). This phoneme is rather rare in Deeləmə, but in Gyɔɔma and Gwaandama, it is the counterpart of /ʃ/ in Deeləmə and is therefore more common. It generally occurs morpheme-initially but can also occur word-medially with reduplication.

Deeləmə

<i>cákà</i>	[tʃákʰà]	‘leg’
<i>cícihà</i>	[tʃíʃíhà]	‘small sticks’

Gyɔɔma

<i>cáwvè-lá</i>	[tʃáwvèlá]	‘hoe’
<i>círéwé</i>	[tʃíréwé]	‘knife’

Gwaandama

<i>cíciwà</i>	[tʃíʃíwà]	‘hoe’ [WL-N1]
<i>cà</i>	[tʃà]	‘to count’ [WL-N1]

The voiced palatal phoneme /ɟ/, realised as [dʒ], is considered a plosive phonologically, despite being an affricate phonetically. It is altogether more prevalent than the unvoiced palatal plosive.

Deeləmə

<i>jà</i>	[dʒà]	‘to eat’
<i>ɟwà</i>	[dʒwà]	‘painful, difficult’

⁷⁷ Also *kùlgùrúwà*.

Gvyvma

<i>jà</i>	[dʒà]	‘to eat’
<i>jùwé</i>	[dʒùwé]	‘fish’

Gwaandama

<i>jímáwá</i>	[dʒímáwá]	‘knife’
<i>jìr</i>	[dʒìr]	‘to look for, search’

The unvoiced velar plosive /k/, realised as [k^h], appears only morpheme-initially.⁷⁸

Deeləmə

<i>kú</i>	[k ^h ú]	‘to preserve’
<i>kóbà</i>	[k ^h óbà]	‘face’

Gvyvma

<i>kùlá</i>	[k ^h ùlá]	‘war’
<i>kún</i>	[k ^h ún]	‘bite’ [WL-G2]

Gwaandama

<i>yílká</i>	[jíl ^h ká]	‘road’
<i>kùlà</i>	[k ^h ùlà]	‘fight, war’

The voiced velar plosive /g/, realised as [g], occurs at the beginning of a syllable: when the syllable is word-medial, its occurrence is restricted to an environment where it follows a nasal vowel or a nasal /n/, which then assimilates to the place of articulation of /g/. This assimilation is not represented in the notation elsewhere in this thesis (cf. §2.1.3.4).

Deeləmə

<i>núngvramà</i>	[núngvramà]	‘Nungvra person’
<i>gámnà</i>	[gámnà]	‘to share’

Gvyvma

<i>gáràlá</i>	[gáràlá]	‘tooth’
<i>dàngèlé</i>	[dàngèlé]	‘crooked, bend’

Gwaandama

<i>gùbálá</i>	[gùbálá]	‘stone’
<i>kùgìlikà</i>	[k ^h ùgìlik ^h à] / [k ^h ùngìlik ^h à]	‘squirrel’ [WL-N1]

2.1.1.2 Fricatives

The voiceless labiodental fricative /f/, realised as [f], is remarkable in that it lacks a voiced counterpart in any of the varieties and is rare itself. It can occur morpheme-initially.

Deeləmə

<i>fà</i>	[fà]	‘to find’
<i>filáwà</i>	[filáwà]	‘chicken’

⁷⁸ With two known exceptions: *ták.má.kwán.gí.là* ‘tortoise, turtle’ (Deeləmə) and *jík* ‘straight’ (Gvyvma, (Newman/Newman 1977b: 63)).

Gvyvma		
<i>fúrí</i>	[fúrí]	‘narrow’
<i>fárnòwá</i>	[fárnòwá]	‘importance, need’

Gwaandama		
<i>fàm</i>	[fàm]	‘to jump’ [WL-N1]
<i>filé</i>	[file]	‘small’

The voiceless alveolar fricative /s/, realised as [s], occurs mostly morpheme-initially.

Deeləmə		
<i>súmàwà</i>	[súmàwà]	‘worm’
<i>sátà</i>	[sátà]	‘to be tired’

Gvyvma		
<i>sùlá</i>	[sùlá]	‘heart’
<i>sé</i>	[sé]	‘to take’

Gwaandama		
<i>sínà</i>	[sínà]	‘long’
<i>sàr</i>	[sàr]	‘to freeze’

The voiced alveolar fricative /z/, realised as [z], is present in Deeləmə and Gvyvma, but not in Gwaandama, where /dz/ is used instead (cf. §2.1.1.5). The fricative only occurs morpheme-initially.

Deeləmə		
<i>zíkà</i>	[zíkà]	‘(a certain kind of) snake’
<i>zà</i>	[zà]	‘to walk, go’

Gvyvma		
<i>zír</i>	[zír]	‘to bark’
<i>zílímlá</i>	[zílímlá]	‘language’

The unvoiced postalveolar fricative /ʃ/, realised as [ʃ], has phonemic status in Deeləmə⁷⁹. The following minimal pairs show that the phoneme is mostly found morpheme-initially and is distinct from /s/.

Deeləmə			
<i>ʃú</i>	‘to cut’	<i>sú</i>	‘to farm’
<i>ʃwà</i>	‘to sit’	<i>swà</i>	‘to buy’
<i>ʃà’à</i>	‘food’	<i>sá’à</i>	‘song’

The phoneme /ʃ/ in Deeləmə corresponds to the phonemes /c/ and /s/ in Gvyvma and to /c/ and /ts/ in Gwaandama. Table 15 and Table 16 demonstrate the regular correspondences between these phonemes.

⁷⁹ In Gvyvma and Gwaandama, the fricative [ʃ] occurs only in loanwords, e.g. *ʃéréwé* ‘gazelle’, *ʃáʃálá* ‘a certain type of fruit’ (Gvyvma (Newman/Newman 1977b: 30, 36)), *brúfilà* ‘brush’ and *àlmákàʃiwa* ‘scissors’ (Gwaandama, [WL-N2]) and sometimes as a free variant of /s/, e.g. *ʃwàwá* instead of *swàwá* ‘house’ (Gvyvma).

Deeləmə	Gvyoma	Gwaandama	
/ʃ/	/c/	/c/	
fúmlə	cùmlə	cùmlə [WL-N1]	‘darkness’
kàfìlkà	kùcìlkà	(kùsúwá) [WL-N1]	‘big calabash’
fì	cí	cí	‘other’

Table 15. Regular sound correspondences /ʃ/ and /c/

Deeləmə	Gvyoma	Gwaandama	
/ʃ/	/s/	/ts/	
fwáwá	swàwá	tswáwá [WL-N1]	‘house’
fìfìmə	sìsìmé	tsìtsìmə [WL-N1]	‘urine’
fím	sím	tsím [WL-N1]	‘to know so.’
fìkàfìkà	sìkàsìkà	tsìkàtsìkà [WL-N1]	‘green’

Table 16. Regular sound correspondences /ʃ/, /s/ and /ts/

Variation between the fricative /ʃ/ and affricates also occurs in other ‘Adamawa’ languages. For instance, Tula exhibits free variation between [ʃ] and [tʃ] in word-initial position (Blench 2020b: 160). In their examination of the Jen cluster, Norton and Othaniel (2020: 60) demonstrate numerous instances where e.g. [ʃ], [tʃ] and [ts] correspond with each other in the Jen languages.

The voiceless pharyngeal fricative /h/, realised as [ħ], occurs mostly morpheme-initially, but can rarely also occur as an onset of a syllable at any position within a lexeme.

Deeləmə

<i>hòyáhà</i>	[ħòjáhà]	‘snake’
<i>hámà</i>	[ħámà]	‘good’

Gvyoma

<i>háb</i>	[ħáb]	‘to catch’
<i>júhé</i>	[júħé]	‘fish (pl.)’

Gwaandama

<i>hábáká</i>	[ħábák ^h á]	‘fire’ [WL-N1]
<i>gíhǎyá</i>	[gíħǎjá]	‘woman, wife’

2.1.1.3 Nasals

The bilabial nasal /m/, realised as [m], can be both the onset and the coda of a syllable.

Deeləmə

<i>mwàr</i>	[mwàr]	‘to grow’
<i>mwòm</i>	[mwòm]	‘to build’

Gvyoma

<i>múr</i>	[múr]	‘to follow’
<i>nàmhá</i>	[nàmhá]	‘animal’

Gwaandama

<i>mwàb</i>	[<i>mwàb</i> ʔ]	‘to build’ [WL-N1]
<i>jàmwà</i>	[<i>jàmwà</i>]	‘animal’ [WL-N1]

The alveolar nasal /n/ can occur as the onset or coda of a syllable. It partially assimilates to a following consonant and is therefore realised as [m] before /b/, [ŋ] before /g/ and /k/ and [n] elsewhere (for examples, cf. §2.1.3.4).

Deeləmə

<i>nákà</i>	[<i>nákʰà</i>]	‘hand’
<i>sʷən</i>	[<i>swən</i>]	‘to smell’

Guyuma

<i>nàká</i>	[<i>nàkʰá</i>]	‘hand’
<i>gwànwá</i>	[<i>gwànwá</i>]	‘horse’

Gwaandama

<i>dəná</i>	[<i>dəná</i>]	‘to look’
<i>wùn</i>	[<i>wùn</i>]	‘to ferment’ [WL-N1]

The palatal nasal /ɲ/, realised as [ɲ], is restricted to syllable onsets.

Deeləmə

<i>na:ɲó</i>	[<i>na:ɲó</i>]	‘five’
<i>ɲimà</i>	[<i>ɲimà</i>]	‘milk’

Guyuma

<i>jàmhá</i>	[<i>jàmhá</i>]	‘animal’
<i>kwèɲilé</i>	[<i>kʰwèɲilé</i>]	‘forest’

Gwaandama

<i>jàmwà</i>	[<i>jàmwà</i>]	‘animal’ [WL-N1]
<i>ɲv</i>	[<i>ɲv</i>]	‘to drink’ [WL-N1]

Interdialectal variation exists between the nasals /n/ and /ɲ/ as well as the approximant /y/. This variation is unpredictable between varieties and is limited to word-initial position. A table from Newman and Newman, with slight adaptations, is provided below to illustrate possible changes.

Cerīma	Deeləmə	Guyuma	Gwaandama	Kɔlama	Gloss
<i>yàláká</i>	<i>yàláká</i>	<i>ɲàláká</i>	<i>yàláká</i>	<i>yàláká</i>	‘sun’
<i>yírá</i>	<i>yírə</i>	<i>ɲíré</i>	<i>yírə</i>	<i>yíré</i>	‘person’
<i>ɲùló</i>	<i>ɲv̀lá</i>	<i>yv̀lá</i>	<i>(áhálá)</i>	<i>ɲv̀lá</i>	‘breast’
<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	‘drank’
<i>ɲim</i>	<i>yim</i>	<i>yim</i>	<i>yim</i>	<i>yim</i>	‘died’
<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	<i>ɲv̀</i>	‘heard’

Table 17. Examples of nasal and approximant changes in the word onset (adapted with changes from Newman and Newman 1977a: 14)

2.1.1.4 Continuants

The labial-velar approximant /w/, realised as [w], occurs as the onset and the coda of a syllable.

Deeləmə

<i>mìyáwà</i>	[mìjáwà]	‘goat’
<i>wə̀hə̀</i>	[wə̀hə̀]	‘to break’
<i>dáw</i>	[dáw]	‘to make sth.’

Gvɔvma

<i>làràwá</i>	[làràwá]	‘elephant’
<i>wàr</i>	[wàr]	‘to marry’
<i>cáwká</i>	[tʰàwkʰá]	‘leg’

Gwaandama

<i>kàlíwà</i>	[kʰàlíwà]	‘one’
<i>wàkà</i>	[wàkʰà]	‘to wash’
<i>táw</i>	[tʰáw]	‘to finish’ [WL-N1]

The alveolar lateral approximant /l/, realised as [l], occurs as the onset and coda of a syllable.

Deeləmə

<i>límlə̀</i>	[límlə̀]	‘cloud’
<i>dé:lébə̀</i>	[dé:lébə̀]	‘Deeləmə person’
<i>yàpílwà</i>	[jàpʰílwà]	‘sheep’

Gvɔvma

<i>làràwá</i>	[làràwá]	‘elephant’
<i>gwàjv̀lá</i>	[gwàdʰv̀lá]	‘sick person’
<i>nà:kàl</i>	[nà:kʰàl]	‘one’

Gwaandama

<i>làbà</i>	[làbà]	‘to forget’ [WL-N1]
<i>kàlíwà</i>	[kʰàlíwà]	‘one’
<i>yílká</i>	[jílʰkʰá]	‘way, road’

The voiced palatal approximant /y/, realised as [j], can be found at the beginning of a syllable and rarely at the end.⁸⁰

Deeləmə

<i>yírà</i>	[jírà]	‘woman, wife’
<i>zwáyíríyà</i>	[zʰájíríjà]	‘female teenager’
<i>déy</i>	[déj]	‘isn’t it?’

⁸⁰ Contrary to the common linguistic convention of using the symbol <j> for the palatal approximant, <y> is used in this thesis instead, which is a common practice in studies on African languages. Moreover, the use of <j> could lead to confusion throughout this thesis as it is also used for the affricate [dʒ] in published and unpublished written texts and wordlists used here for the analysis.

Gvyvma

<i>yá</i>	[já]	‘to fall’
<i>mwàrìyá</i>	[m ^w àrìjáy]	‘older sibling’

Gwaandama

<i>yárgìn</i>	[járgìn]	‘to hurry’
<i>miyáwá</i>	[mìjáywá]	‘goat’

At the onset of certain lexemes, the palatal approximant /y/ may be in free variation with the palatal nasal /ɲ/. Examples of this can be seen in Gvyvma below. However, as previously demonstrated in Table 17, some lexemes have a nasal onset in one variety and an approximant onset in another. Yet other lexemes do not show any variation across varieties.

Gvyvma

<i>yìré ~ ɲìré</i>	‘person’
<i>yìbé ~ ɲìbé</i>	‘people’

2.1.1.5 Affricates

In Nvngvrama, there are two affricates phonetically that can be considered to be part of the plosives phonologically. These were described in the relevant section above. Gwaandama has two additional affricates: /ts/ and /dz/.⁸¹

The voiceless alveolar affricate /ts/ is realised as [t^s]. Lexemes that contain this phoneme in Gwaandama have /s/ or /ʃ/ in Deeləmə and only /s/ in Gvyvma.

Gwaandama

<i>tsimà</i>	[t ^s imà]	‘smoke’ [WL-N1]
<i>tswàn</i>	[t ^s wàn]	‘to abuse, insult’ [WL-N1]
<i>tsólá</i>	[t ^s ólá]	‘heart’

The voiced alveolar affricate /dz/ is realised as [d^z]. According to Newman and Newman (1977a: 14f.), the phoneme is not only present in Gwaandama, but also in Cerĩma, Gvyvma and Deeləmə. However, my data for Gvyvma and Deeləmə does not support this claim. Instead, the phoneme /z/ is used where Gwaandama uses /dz/.

Gwaandama

<i>dzikà</i>	[d ^z ik ^h à]	‘town, city’
<i>dzírà</i>	[d ^z írà]	‘soon’
<i>dzwíbá</i>	[d ^z wíbá]	‘children’

2.1.1.6 Labialised consonants

Labialised consonants are consonants that have a secondary vowel-like articulation [u], represented by <w>. This secondary articulation is “most audible at the ends of the

⁸¹ This also applies to Cerĩma and Kólama, according to Newman and Newman (1977a: 13).

consonants” but is “present throughout its entire duration” (Anyanwu 2008: 96f). Labialised consonants are analysed as distinct phonemes due to the existence of (near) minimal pairs in the data (albeit only a few). Compare the lexemes on the left with those on the right.

Deeləmə

<i>fwómá</i>	‘poison’	<i>ǰmà</i>	‘mother’
<i>bwálà</i>	‘salt’	<i>bàlà</i>	‘to write’
<i>bwá</i>	‘to break, hatch’	<i>bá</i>	3PL.IMP
<i>nwa</i>	‘to bear a child’	<i>ná</i>	‘to give’ [WL-D1]

Gvyvma

<i>swà</i>	‘to sit’	<i>sá</i>	‘to run’ [WL-G2]
<i>kwà</i>	‘to chew’	<i>kà</i>	2PL (Newman/Newman 1977b: 66)
<i>cwàkà</i>	‘to dip’	<i>càkà</i>	‘to shake’ [WL-N1]

Gwaandama

<i>twá</i>	‘to examine’	<i>tá</i>	‘to melt’ (Sabe 2014: 35, 37)
<i>bwàhàwà</i>	‘crocodile’	<i>bāhāwā</i> ⁸²	‘chisel’ [WL-N1]
<i>dwala</i>	‘to reduce, decrease’	<i>dálá</i>	‘wound’ [WL-N1]

In Nvngvrama, and in fact in any other language with labialised consonants according to Anyanwu (2008: 97), the number of consonants that can be labialised is more restricted than consonants without a secondary articulation. The approximants /w/ and /y/, the lateral /l/ and the fricatives /f/ and /h/ cannot be labialised in any of the three varieties in Nvngvrama.⁸³ With other consonants, there are differences between the dialects. In Deeləmə, the palatal nasal /ɲ/ is not attested to occur with a secondary articulation. In Gwaandama, there are no examples of a labialised voiced dental plosive /ɖ/ and a labialised alveolar nasal /n/. Other labialised consonants occur only in a very limited number of lexemes, with three at most. These are /nw/ in Deeləmə and Gvyvma, /nw/ and /ɲw/ in Gvyvma and /cw/ in Gwaandama. The following table displays all attested examples. All other labialised consonants are more common. Examples are found throughout this thesis.

Deeləmə

<i>/n^w/</i>	<i>nwila’á</i>	‘doubt’ [WL-D1]
	<i>nwa</i>	‘to bear a child’ [WL-D1]

Gvyvma

<i>[n^w]</i>	<i>nwǰm</i>	‘ten’
<i>[ɲ^w]</i>	<i>ɲwà</i>	‘to buy, pay for’
	<i>-ɲwà</i>	‘five’

Gwaandama

<i>[c^w]</i>	<i>cwàtà</i>	‘to increase’ [WL-N1]
	<i>cwàkà</i>	‘to dip’ [WL-N1]
	<i>cwáncvrvà</i>	‘snail, toad’ [WL-N1]

⁸² This is the only example throughout the wordlists in which midtones are explicitly mentioned.

⁸³ Except for a few examples of /yw/ in Gvyvma in [WL-G1], e.g. *ywar* ‘winnow, fan’.

Labialised consonants occur in two environments: stem-initially and rarely stem-medially. The latter can mostly be explained by reduplication (in ideophones) and compounds, as the following lexemes exemplify.

Deeləmə

cwabcwab ‘warm’

Gvɔvɔma

yakwahawa ‘dryness, aridity’ (lit. dry place) [WL-G1]

Gwaandama

swìswìwà ‘trap’ [WL-N1]

Labialised consonants often, but not exclusively, occur before the vowel /a/ (cf. Sabe (2014: 37f.) and). This is a common phenomenon in other languages (e.g. in Waja (Kleinewillinghöfer 1991: 35)), where “consonants (especially obstruents and nasals) become labialised before vowels with the features [+back] and [+low]” (Anyanwu 2008: 186). However, in Nvngvrama, labialised consonants can be followed not only by back and low vowels but also, to a lesser extent, by for instance a front mid-high vowel /e/ or even a high vowel /i/.

Deeləmə

zwà

swì-

Gvɔvɔma

zwè

swì-

Gwaandama

dzwà

swì-

‘to ask’

‘black’

Labialised consonants are also common in other ‘Benue-Volta’ languages, e.g. in Waja (Kleinewillinghöfer 1991: 35) and Tula (Blench 2020a: 11f.), and in neighbouring Chadic languages, such as Dera (Newman 1974) and Tangale (Kidda 1993: 21).

2.1.1.7 Consonant clusters

Cases where one consonant appears at the syllable coda followed by another consonant at the syllable onset are not considered a consonant cluster. ‘Real’ consonant clusters, i.e. clusters that occur as the onset or coda of a single syllable (Catford 2001: 195), only occur in loanwords such as [gl] in the English borrowing *gláslà* ‘mirror’ (Deeləmə, Gwaandama [WL-N2]) or [tr] in *índustrìwà* ‘industry’ (Gwaandama [WL-N2]). Most of the time, however, loanwords are adapted to the Nvngvrama syllable structure by inserting a vowel, mostly /i/, such as in *kírsímàwà* ‘Christmas’, *diraftawa* ‘draft’, *dírèbà* ‘driver’ (Gwaandama [WL-N2, S-N1]).

In the wordlists, a few instances of the consonant clusters [fr] and [br] occur at the onset of a syllable. However, it is suggested that although these consonant clusters arise in spoken language, underlyingly a vowel occurs between the consonants (cf. §2.3.3).

2.1.2 Overview of vowels

Nvngvrama exhibits oral and nasal vowels which are presented in the tables below. The nasal vowels are in “contrast[...] with the corresponding oral vowel[s] of the same quality” (Anyanwu 2008: 90). Vowels in brackets occur infrequently in the respective varieties and their phonemic status cannot be determined with the available data. The distinction into [+ATR] vowels on the left and [-ATR] vowels on the right is explained and discussed in §2.2.5.

Deeləmə	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i		u	ɪ		ʊ
mid		ə	(o)	(ɛ)		(ɔ)
open					a	

Table 18. Oral vowel inventory of Deeləmə

Deeləmə	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	ĩ		(ũ)	ĩ		ũ
mid	(ẽ)					õ
open					ã	

Table 19. Nasal vowel inventory of Deeləmə

Gvyvma	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i		u	ɪ		ʊ
mid	e	(ə)	(o)	(ɛ)		(ɔ)
open					a	

Table 20. Oral vowel inventory of Gvyvma

Gvyvma	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	ĩ		ũ	ĩ		ũ
mid	ẽ					õ
open					ã	

Table 21. Nasal vowel inventory of Gvyvma

Gwaandama	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i		u	ɪ		ʊ
mid		ə ⁸⁴	(o)			(ɔ)
open					a	

Table 22. Oral vowel inventory of Gwaandama⁸⁵

⁸⁴ Contrary to his proposal from 2014, Sabe (1995: 17f.), in his thesis from 1995, distinguished two Schwa sounds, represented orthographically as <e> and <ɛ>, but both pronounced phonetically [ə]), which he categorised into the two different vowel sets “lax” and “tense” (i.e. [+ATR] and [-ATR]). Additionally, he proposed a phoneme [e] for the [+ATR] set.

⁸⁵ Sabe (2014: 30f.) includes another vowel [i] in the [+ATR] set. He provides numerous examples of minimal pairs. However, in his orthography, he uses the Schwa symbol for both [i] and [ə],

Gwaandama	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	ĩ		(ũ)	ĩ		ũ
mid	(ẽ)					õ
open					ã	

Table 23. Nasal vowel inventory of Gwaandama

The (oral) vowel system in all three varieties is unbalanced, with front and central vowels being used more frequently than mid-back vowels.⁸⁶ In addition, vowels with closed and open aperture are more common than mid-vowels. It is noteworthy that the nasal vowels [ẽ] and [õ] rarely occur in the data, while their oral counterparts [e] and [ə] frequently occur in the three varieties. Moreover, while the close back rounded oral vowel [ɔ] is infrequent in the data and its phonemic status is unclear, the nasal counterpart [ɔ̃] is quite common. Overall, it can be concluded that nasal vowels are less common than oral vowels, as is the case cross-linguistically (Anyanwu 2008: 281). Nevertheless, nasal vowels with phonemic status are a distinctive characteristic of the Sudanic belt (Clements/Rialland 2008: 45).

Although almost no minimal pairs for nasal and oral vowels are attested, the nasal vowels occur ‘context-free’ and are therefore true nasal vowels. Some near minimal pairs are presented below.

Deelomə

<i>jə̀l̀à</i>	‘hunger, famine’	<i>júwà</i>	‘hard, painful, difficult’
<i>tá'á</i>	‘rooms’	<i>tá'á</i>	‘firewood’
<i>s'wíkà</i>	‘wing’	<i>zíkà</i>	‘(particular) snake’

Gvyvma

<i>jáwǎ</i>	‘to be tired’	<i>jàwá</i>	‘fresh cut grass for animals’
<i>bǎlá</i>	‘lion, leopard’	<i>bórá</i>	‘to remind so.’
<i>zwǎyá</i>	‘younger sibling’	<i>zwǎliyá</i>	‘man, husband’
<i>kǎlá</i>	‘war’	<i>kwá</i>	‘straw, weed’ [WL-G1]
<i>sísí</i>	‘cold’	<i>sìsímé</i>	‘urine’
<i>kúwé</i>	‘mother’	<i>kúwé</i>	‘to pour’

(Newman/Newman 1977b: 20)

Gwaandama

<i>ǫú</i>	‘our’	<i>ǫú</i>	‘transplant’ [WL-N1]
<i>filé</i>	‘small’	<i>filà</i>	‘flower’ [WL-N1]
<i>tsáwá</i>	‘porcupine’	<i>tsáká</i>	‘tail’ [WL-N1]
<i>swítàwà</i>	‘horse’	<i>swìswìwà</i>	‘trap’ [WL-N1]
<i>swǎyá</i>	‘francolin, bush fowl’	<i>swǎyá</i>	‘old person’

which causes confusion. Additionally, certain symbols are used interchangeably for probably the same phoneme, such as [i] and [ɨ], [i] and [ɨ] as well as [ə] and [ɘ].

⁸⁶ Unbalanced vowel systems are also present in other ‘Adamawa’ languages. According to Kleinewillinghöfer (1996b: 28), the vowel systems of Nvngvrama, Tula, Waja, Burak-Loo (Bikwin group) and Tangale (Chadic) are fairly similar compared to other Bikwin-Jen and Bəna-Mboi languages.

2.1.2.1 Oral vowels

The subsequent paragraphs provide a description and examples of each vocalic phoneme occurring in Nvngvrama. Following the works of Kramer (2014: 33), Tröbs (1998: 48ff.) and Kastenholz (1987: 44), the vowel of the first syllable is referred to as V1, while the vowels in all other syllables are referred to as V2.

The close front unrounded vowel /i/, realised as [i], can occur in V1 and V2 position.

Deeləmə

<i>jiká</i>	[dʒikʰá]	‘arrow’
<i>kúriwà</i>	[kʰúriwà]	‘father’

Gvyvma

<i>gwircìtè</i>	[gʷirɕitʰè]	‘divorce’
<i>fúri</i>	[fúri]	‘narrow’

Gwaandama

<i>pwúkílá</i>	[pʷúkʰílá]	‘dust cloud of harmattan’ [WL-N1]
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The close to close-mid front unrounded vowel /ɪ/, realised as [ɪ], is commonly used and can occur in any syllable, i.e. V1 and V2.

Deeləmə

<i>tikà</i>	[tʰikʰà]	‘tree’
<i>cícìhà</i>	[tʰitʰihà]	‘small sticks’

Gvyvma

<i>nìngá</i>	[nìngá]	‘to give’
<i>mwàribá</i>	[mʷàribá]	‘older siblings’

Gwaandama

<i>zìkà</i>	[zìkʰà]	‘snake’
<i>gáriwá</i>	[gáriwá]	‘crab’

The close back rounded vowel /u/, realised as [u], typically appears in V1 position.

Deeləmə

<i>fúlà</i>	[fúlà]	‘fear’
<i>kú</i>	[kʰú]	‘to preserve’

Gvyvma

<i>yú</i>	[jú]	‘to sing’
<i>súndì</i>	[súndì]	‘old’

Gwaandama

<i>dùmlà</i>	[dùmlà]	‘hat’ [WL-N1]
<i>wùndì</i>	[wùndì]	‘shall, will’

The close to close-mid back rounded vowel /ʊ/, realised as [ʊ], mostly occurs in V1 position.

Deeləmə		
<i>dòmá</i>	[dòmá]	‘to sleep’
<i>gúyúbà</i>	[gúyúbà]	‘Gvyuma people’

Gvyuma		
<i>nùlá</i>	[nùlá]	‘eye’
<i>bùlá</i>	[bùlá]	‘to play’

Gwaandama		
<i>mù</i>	[mù]	‘you (sg.)’
<i>tsùlá</i>	[t ^s ùlá]	‘heart’

The close-mid front unrounded vowel /e/ only occurs in Gvyuma. It is realised as [e] as well as [ẽ] in the last syllable of some nouns (cf. §4.2.3, 4.2.7, 4.2.8).

Gvyuma		
<i>swè</i>	[swè]	‘to farm’
<i>cùmlé</i>	[t ^h ùmlé]	‘darkness’
<i>bàlìwé</i>	[bàlìwé]	‘cow’

The mid central rounded vowel (Schwa) /ə/, realised as [ə], is common in Deeləmə and Gwaandama, but is not attested in Gvyuma.

Deeləmə		
<i>bàlìwà</i>	[bàlìwà]	‘cow’
<i>fǎ</i>	[fǎ]	‘to read’

Gwaandama		
<i>yìrə</i>	[jìrə]	‘person, man’ [WL-N1]
<i>dzə</i>	[d ^z ə]	‘to go’

The phonemic status of the open-mid front unrounded vowel [ɛ] is unclear as it is rather uncommon. According to Kleinewillinghöfer (1994/2019), it is more customary in Kolama, particularly with the negative particle *ge*. The data only includes the following lexemes in Deeləmə, Gvyuma and Gwaandama.

Deeləmə		
<i>fěfún</i>		‘short’
<i>déy</i>		‘isn’t it?’

Gvyuma		
<i>gwèrcíwé</i> ⁸⁷		‘fear’ (Newman/Newman 1977b: 43, 55), [WL-G1, WL-G2]
<i>gwél</i>		‘request’ (Newman/Newman 1977b: 43)
<i>dèngèléké</i> ⁸⁸		‘crooked’ (Newman/Newman 1977b: 43)
<i>dél</i>		‘when’ (Newman/Newman 1977b: 43)

Gwaandama		
<i>bèlàkí</i>		‘black’ (borrowed from English) [WL-N1]

⁸⁷ But also: *gwàrcíwé/gwercuwe/gwarcíwe* [WL-G1, WL-G2].

⁸⁸ But *dengile* in [WL-G1].

As the only Gwaandama example is a loanword, [ɛ] is not included in the vowel inventory of that variety (as seen above). However, it is provisionally included (in brackets) in the vowel inventory of the other two varieties, as it occurs in a few cases that cannot be explained otherwise.

The open central unrounded vowel /a/ is realised as [a] and in some cases as [ɔ]. The latter occurs almost exclusively in V1 position after a labialised consonant and is often in free variation with [a], as demonstrated by some examples below.⁸⁹ The phoneme can occur in both V1 and V2 position.

Deeləmə

<i>zà</i>	[zà]	‘to walk, to go’
<i>ná’à</i>	[náʔà]	‘arms’
<i>fʷáwà</i>	[fʷáwà] / [fʷɔ́wà]	‘house’
<i>zwàn</i>	[zʷàn] / [zʷɔ́n]	‘to kick’

Gvɔvɔma

<i>gáràlá</i>	[gáràlá]	‘tooth’
<i>fà</i>	[fà]	‘to find’
<i>mwàm</i>	[mʷàm] / [mʷɔ́m]	‘to eat (fruit), suck’
<i>swàmbíràwá</i>	[sʷàmbíràwá] / [sʷɔ́mbíràwá]	‘devil’

Gwaandama

<i>tsámáká</i>	[tʰámákʰá]	‘laziness’
<i>yà</i>	[jà]	‘here’
<i>tswáwá</i>	[tʰswáwá] / [tʰswɔ́wá]	‘house’

For certain lexemes, only the pronunciation with [ɔ] is attested, as in the following examples. Therefore, it is included in the vowel inventory in Nvngvɔrama in brackets.

Deeləmə

<i>kóbà</i>	[kʰɔ́bà] ⁹⁰	‘face’
<i>nà:nó</i>	[nà:nó]	‘five’

Gvɔvɔma

<i>nà:nó</i>	[nà:nó]	‘five’
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Gwaandama

<i>tómá</i>	[tʰɔ́má]	‘soil’ [WL-N1]
<i>nà:nò</i>	[nà:nò]	‘five’
<i>fɔ̀là</i>	[fɔ̀là]	‘granary’ [WL-N1]
<i>jórówá</i>	[dʒórówá]	‘time’ [WL-N1]
<i>hóyáwá</i>	[hɔ́jáyá]	‘(a particular) snake’ [B-N1]

⁸⁹ According to Newman and Newman (1977b: 27, cf. 30), “especially in the presence of labial and velar consonants, there is free fluctuation between the following sounds: (o) (ɔ) (u) (au) (eu) (əu) (ʌu)”. Cf. §4.2.7 for more examples.

⁹⁰ But *kàwà* ‘face’ in Gwaandama [WL-N1].

The close-mid back rounded vowel [o] is mostly found in loanwords. It is also attested in Kolama where it appears in noun class suffixes (e.g. *duu-mó* ‘seed’, *núú-mó* ‘oil’ (Kleinewillinghöfer 1994)). As the phonemic status is unclear in Deeləmə, Gyyuma and Gwaandama, it is preliminarily included in their vowel inventories.

Deeləmə

<i>bò</i>	‘they’
<i>kôw</i>	‘ten’
<i>mángòròlà</i>	‘mango’ (from Hausa <i>mangwàrò</i>)

Gyyuma

<i>rogowe</i>	‘cassava’ (from Hausa <i>rōgò</i>) [WL-G1]
<i>múngòrómé</i>	‘mango tree’ (from Hausa <i>mangwàrò</i>)
<i>sorɲike</i> ⁹¹	‘shrew’ [WL-G1]
<i>gombuwe</i>	‘sesame’ [WL-G1]

Gwaandama

<i>tóbòlíwá</i>	‘mud-brick’ (from Hausa <i>tóbòlíwá</i> ‘brick of dried mud’) [WL-N1]
<i>bókótiḥà</i>	‘bucket’ (from Hausa <i>bōkiti</i>) (Kleinewillinghöfer 1994)
<i>dùmbótá</i>	‘dagger’ [WL-N1]

2.1.2.2 Nasal vowels

The close front unrounded nasal vowel /ĩ/, realised as [ĩ], is not frequently found in the data, mostly appearing in V1 position but also in V2 position.

Deeləmə

<i>bàlǐwà</i>	[bàlǐwà]	‘cow’
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Gyyuma

<i>bàlǐwé</i>	[bàlǐwé]	‘cow’
<i>zwǐyè</i>	[z ^w ǐjè]	‘child’

Gwaandama

<i>dzwǐyá</i>	[d ^w ǐyá]	‘child’
<i>jǐwá</i>	[d ^s ǐwá]	‘fish’

The close-mid front unrounded nasal vowel /ĩ/, realised as [ĩ], is more frequent than /ĩ/. It generally occurs in V1 position but can also occur in V2 position.

Deeləmə

<i>zwǐyà</i>	[z ^w ǐjà]	‘younger sibling’
<i>swíkà</i>	[s ^w ík ^h à]	‘wing’

Gyyuma

<i>zwǐyá</i>	[z ^w ǐjá]	‘younger sibling’
<i>sĩsĩ</i>	[sĩsĩ]	‘cold’

⁹¹ But *swǐrɲíkà* or *sòlɲíkà* ‘shrew’ in Gwaandama [WL-N1].

Gwaandama

<i>swíyá</i>	[s ^w íjá]	‘francolin, bush fowl’
<i>gíhíyá</i>	[gíhíjá]	‘woman’

The close back rounded nasal vowel /ũ/, realised as [ũ], is a phoneme in Gyyuma. However, its status as a phoneme in both Deeləmə and Gwaandama is uncertain as only one lexeme is attested in these varieties.

Deeləmə

<i>zwútà</i>	[z ^w út ^h à]	‘excrement’
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Gyyuma

<i>júwé</i>	[dʒúwé]	‘fish’
<i>kúwé</i>	[k ^h úwé]	‘mother’

Gwaandama

<i>kúyilà</i>	[k ^h újilà]	‘bush’ [WL-N1]
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The close back rounded nasal vowel /ĩ/, realised as [ĩ], is not commonly used in Deeləmə and Gyyuma, but is more frequently found in Gwaandama. It can occur in any syllable within a word.

Deeləmə

<i>jǐlǎ</i>	[dʒǐlǎ]	‘hunger, famine’
<i>sakakǐwa</i>	[sak ^h ak ^h ǐwa]	‘elbow [WL-D1]

Gyyuma

<i>kǐlǎ</i>	[k ^h ǐlǎ]	‘war’
<i>kǐkǐgǎlǎ</i>	[k ^h ǐk ^h ǐgǎlǎ]	‘tortoise, turtle’

Gwaandama

<i>dǐ</i>	[dǐ]	‘our’
<i>sǐwà</i>	[sǐwà]	‘dog’ [WL-N1]

The close-mid front unrounded vowel [ɛ̃] occurs mostly in free variation with /e/ in Gyyuma (cf. §4.2.3, 4.2.7, 4.2.8). Although a few other Gyyuma examples suggest that it could be considered a phoneme, its phonemic status is unclear in Deeləmə and Gwaandama, where only one example each is attested.

Deeləmə

<i>filè</i>	[filè]	‘small’
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Gyyuma

<i>círǐwé</i>	[tʃírǐwé]	‘knife’
<i>zwǐké</i>	[z ^w ǐk ^h é]	‘question’
<i>gámáyèlèké</i>	[gámáyèlèk ^h é]	‘worm’
<i>gǐgǎrke</i>	[gǐgǎrk ^h e]	‘mantis’ [WL-G1]
<i>kǐzile</i>	[k ^h ǐzile]	‘trunk’ [WL-G1]

Gwaandama

<i>filé</i>	[filé]	‘small’
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The open-mid back rounded nasal vowel /ɔ̃/, realised as [ɔ̃], appears in all three varieties in V1 and V2 position. It is worth noting that /ɔ̃/ is a phoneme, while /ɔ/ is not.

Deeləmə

ḥ	[ḥ]	‘yes’
yilḥtá ⁹²	[yilḥtá]	‘slavery’
fḥlà	[fḥlà]	‘egg’
tḥfirma ⁹³	[tḥfirma]	‘brain’ [WL-D1]
bḥla	[bḥla]	‘lion’ [WL-D2]

Gvyvma

bḥlá	[bḥlá]	‘lion, leopard’
kárásḥlà	[kárásḥlà]	‘wing’
sḥya	[sḥja]	‘witch’ [WL-G1]
jḥka	[dḥkḥa]	‘nose’ [WL-G1]

Gwaandama

bḥlà	[bḥlà]	‘leopard’ [WL-N1]
bḥká	[bḥkḥá]	‘skin’ [WL-N1]
swḥkà	[sḥkḥà]	‘flour’ [WL-N1]

The open central vowel /ã/, realised as [ã], is a phoneme that can occur in any position within a word. In Gvyvma, it is also an allophone of /a/ (cf. §4.2.3, 4.2.7, 4.2.8).

Deeləmə

cḥkà	[tḥkḥà]	‘leg’
filḥwà	[filḥwà]	‘chicken’
tḥlà	[tḥlà]	‘room’

Gvyvma

dḥsíkà ⁹⁴	[dḥsikḥá]	‘door’
nḥwá	[nḥwá]	‘animal, meat’
swḥ	[sḥ]	‘smell’

Gwaandama

tsḥwá	[tḥwá]	‘porcupine’ [WL-N1]
kwḥsáyá	[kḥsḥájá]	‘chief’ [WL-N1, B-N1]

2.1.3 Phonological processes

2.1.3.1 Vowel lengthening

Vowel length is not a distinctive feature in Nvngvrama.⁹⁵ Any instances of long vowels are conditioned by specific parameters (cf. Wiesemann 2000: 173, Anyanwu 2008: 282).

⁹² But *yilḥwà* ‘slave’ (Deeləmə) and *yilátá* ‘slavery’ (Gvyvma).

⁹³ But *tḥfirmà/tḥfärmá* ‘brain’ (Gwaandama) [WL-N1].

⁹⁴ But *daka/bḥsíkà* ‘door’ [WL-G1].

⁹⁵ Sabe (2014: 32) considers vowel length to be distinctive in Gwaandama, although no minimal pairs are presented nor do they occur elsewhere in the data. However, long vowels occur in the

Firstly, lengthening of vowels is used to mark stress (Sabe 2014: 32), which is particularly evident in ideophones. The vowel can be prolonged by the speakers to emphasise the syllable. The more the speaker wants to stress the syllable, the longer s/he can prolong the vowel, as is possible with the following ideophones.

Deeləmə	Gvyvma	
'swe	'swé	'poor taste'
'swábà	'swábá	'very slow, very careful'
'jàwà	'jàwá	'sharp' (e.g. blade)

Secondly, loanwords may contain long vowels, such as Gvyvma's borrowing of the English word 'letter': *lé:téwà*.

Thirdly, long vowels can arise due to affixation or cliticisation. For details and examples, cf. §2.1.3.3.

2.1.3.2 Geminata

Geminata is the articulation of two identical consonants as one long consonant. According to Maddieson (2018: 585), geminates "can easily have twice the (acoustic) duration of singletons". Geminates are generally classified into two types: underlying geminates, also known as long consonants, and derived geminates or double consonants. The latter can appear in the combination of morphemes or words (Catford 2001: 106, Kubozono 2017: 2).

In Nungurama, underlying geminates are only attested with nasals and continuants (including [r]). They appear word-medially in Deeləmə and Gvyvma ideophones (cf. §3.5), but they do not occur in the Gwaandama data⁹⁶.

Deeləmə		
<i>ỳl:á</i>	'warm'	
<i>b̀l:á</i>	'smooth'	compare <i>b̀lá</i> 'fade'
Gvyvma		
<i>ỳl:á</i>	'warm'	
<i>ním:á</i>	'close to sth.'	
<i>tr:á</i>	'stretched out'	(Newman/Newman 1977b: 23)
<i>sir:á</i>	'silent'	compare <i>sírà</i> 'wet' (Newman/Newman 1977b: 23)

A frequently used lexeme with a geminate is *kál:á* 'small, little'. Unlike the lexemes above, it is not an ideophone but a borrowing from the Dera term *kállá* with the same meaning (Newman 1974: 126). The geminate can be lengthened to emphasise the dimension of the particular object.

data that cannot be explained with one of the parameters below. They are marked as V: or as VV if the tones are different. More research on this discrepancy is needed.

⁹⁶ There are a few instances in the wordlists where lexemes are spelled with double consonants. However, all of them also have alternative notations with single consonants, e.g. *búllùmtà* or *búlùmtà* 'nest', *mámmá* or *mámá* 'water' [WL-N1].

- Deeləmə**
- (5) *à-já=ú* *bwà-l* *dà* *kál:à*
 3SG-give.gift=1SG.OBJ salt-L small small
 ‘she gave me a very little amount of salt (as a gift)’

Derived geminates are more frequent in Nungurama than underlying geminates. The examples from Gvyvma illustrate gemination through affixation, while those from Deeləmə and Gwaandama exemplify it at word boundaries.

- Deeləmə**
- (6) *má-m* *má-nì* [*mám:áɲì*]
 water-M.9 9-1SG.POSS
 ‘my water’

- Gvyvma**
- (7) *zwá-b-á=ù* *ná-b-bà* [*náb:à*]
 child-B.2-REF-DEF NUM-2-how.many
 ‘how many children?’

- Gvyvma**
- (8) *dìb=bè* [*dìb:è*]
 beat=3PL.OBJ
 ‘beat them’ (Newman/Newman 1977b: 23)

- Gwaandama**
- (9) *yì-b* *bírá-bá* [*yìb:irábá*]
 people-B.2 many-2
 ‘many people’

2.1.3.3 Hiatus resolution

A hiatus can be defined as two vowels succeeding each other across morpheme boundaries (Anyanwu 2008: 105). In Nungurama, a hiatus is generally not permitted. When such a situation arises, for example by adding a suffix with a vowel onset to a lexeme without a coda, it is resolved through phonological means. These include approximant insertion, coalescence (also called reciprocal assimilation), labialisation and vowel lengthening. The following sections introduce these means.

With approximant insertion, a hiatus can be resolved by adding an approximant between the two vowels. In Nungurama, the approximant used is either /y/ or /w/, depending on the place of articulation of the second vowel (i.e. whether it is a front or a back vowel).

- Deeləmə**
/ná-dú=àm/ [*nádúwàm*] ‘I see you (sg.)’

- Gvyvma**
/márná=i/ [*márnáyí*] ‘teach him/her’
/jiké=Ù/ [*dʒìk^héwù*] ‘the arrow’

Gwaandama*/dzà=ù/**[dʒàwù]*

‘to come’ (lit. to go back)

As there is a clear rule for approximant insertion, examples in this thesis do not show it unless it occurs in a lexicalised item, such as *nàkwàyi* ‘three’ in Gvyɔma (cf. §3.7.2).

Sometimes, approximant insertion is combined with partial regressive assimilation. This means that the first vowel partially assimilates to the second vowel, i.e. it does not “necessarily inherit[...] its features completely” (Anyanwu 2008: 178). For example, in Gvyɔma and Gwaandama, the last vowel of a noun can partially assimilate, i.e. become a back vowel, before the definite marker =*ù*. Additionally, an approximant is inserted. The two examples illustrate this.

Gvyɔma*/jiké=ù/**[dʒikʰówù]*

‘the arrow’

Gwaandama*/jimá-wá=ù/**[dʒimáwówù]*

‘the knife’

Coalescence or reciprocal assimilation is a phonological process in which two adjacent vowels merge, resulting in a vowel that is usually between the two original vowels. This means that they “meet somewhere in the centre” (Anyanwu 2008: 177). For instance, in Gvyɔma and Gwaandama, the last vowel of a noun can merge with the definite marker =*ù*. Compare the following two examples with those above.

Gvyɔma*/jiké=ù/**[dʒikʰô]*

‘the arrow’

Gwaandama*/jimá-wá=ù/**[dʒimáwô]*

‘the knife’

Labialisation is a phonological process “in which a sound becomes ‘rounded’” (Anyanwu 2008: 186). It should be noted that labialisation must not be confused with labialised consonants as phonemes (cf. §2.1.1), although they could have developed from labialisation processes.⁹⁷ In Nvngɔrama, if the first vowel of two adjacent vowels is /U/ or /O/, it can become an approximant /w/, as the following examples show.

Deeləmə*/ná-dú=àm/**[náɖám]*

‘I see you (sg.)’

Gvyɔma*/dú-é/**[ɖé]*

‘heads’

Gwaandama*/jwù-à/**[jwá:]*

‘eyes’ [WL-N1]

⁹⁷ For example, Lesage (2020: 115, 134f.) proposes that labialisation synchronically led to labialised consonants in Kam.

When two identical vowels appear together, they can be pronounced as a single, elongated vowel. This is known as vowel lengthening. In Nungurama, vowel lengthening is the only way to resolve a hiatus with identical vowels.

Deeləmə

/ná-á-bánà/	[ná:bánà]	‘how many’ (with NF class 6)
/à=à=zwə/	[à:zwə]	‘s/he will ask him/her (a question)’

Gvyvma

/bìmbá-Á/	[bìmbá:]	‘bows’
/bá=á=/	[bá:]	3PL.PROG

Gwaandama

/má-A/	[má:]	‘bodies’
/ná-A/	[ná:]	‘hands, arms’

Vowel hiatus and its resolution through various phonological processes is also common in other ‘Adamawa’ languages. For example, Baa (Möller Nwadigo n.d.: 57ff.) and Kam (Lesage 2020: 129ff.) exhibit similar patterns.

2.1.3.4 Assimilation

Anyanwu (2008: 175) defines assimilation as “a phonological process whereby a sound becomes more like a neighbouring one in terms of certain features”. The direction of assimilation can be both regressive and progressive.

In Nungurama, two regressive assimilation processes occur. The first process involves nasals and nasal vowels assimilating to the following plosives in terms of place of articulation (cf. Newman and Newman (1977b: 21)).

Deeləmə

/wáà/	[wáŋk ^h à]	‘leaf’
/wátà/	[wáŋt ^h à]	‘leaves’
/dàngà/	[dàngà]	‘to think’
/jvèlà/	[d ^ʒ vènlà]	‘hunger, famine’
/cákà/	[t ^ʃ ák ^h à]	‘leg’

Gvyvma

/n bà/	[m bà]	‘with what’
/zíká nkyà/	[zík ^h ə nkyà]	‘which town’
/zítá ntyà/	[zít ^h ə ntyà]	‘which towns’
/kòkògàlá/	[k ^h vòk ^h əŋgàlá]	‘tortoise, turtle’
/zwìyá/	[z ^w ìj ^h á]	‘younger sibling’

Gwaandama

/niá àbì/	[nijá àmbì]	‘this thing / these things’
/jóká/	[d ^ʒ ók ^h á]	‘nose’ [WL-N1]
/sìlà/	[sìnlà]	‘tsetse fly’ [WL-N1]
/swìyá mwárwá/	[s ^w ìj ^h á m ^w árwá]	‘francolin, bush fowl’ [WL-N1]

As nasals and nasal vowels only assimilate to plosives, assimilation of one nasal with a following nasal does not occur. This is illustrated in the following examples from Gvɔvɔma.

Gvɔvɔma

/yimá jìnmè/	[jím dʒìnmè]	‘your (pl.) milk’
/yimá bìnɔmà/	[jím bìnɔmà]	‘their milk’

The examples in this thesis do not indicate this type of assimilation of nasals and nasal vowels, as it is a regular phonological process.

The second type of regressive assimilation occurs in Nungvɔrama when a vowel precedes an approximant /y/ or /w/. The vowel tends to become closed and thus assimilates to the following approximant (cf. Newman/Newman 1977b: 58).

Deelɔmɔ

/dwá yá/	[dʷí já]	‘saw him/her’
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Gvɔvɔma

/á jv̀-lá-yà=v̀/	[á jv̀lìjòwv̀]	‘in the eye’
/zà=wá/	[zòwá]	‘to come’

Gwaandama

/dzi=wá/	[dʒ̀v̀wá]	‘to come’
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2.1.3.5 Nasalisation spreading

Nasalisation spreading is a process unique to Gvɔvɔma. It occurs on the referential marker -A (§3.2.2) when two conditions are met: the noun root ends in a nasal vowel or nasal, and the noun root occurs with NF classes Y, W, HA or A (cf. Newman and Newman 1977b: 20).

Gvɔvɔma

/zwí-yÁ-A/	[zʷíyé]	‘child’
/sɔ̃-yÁ-A/	[sɔ̃yá]	‘witch’ [WL-G1]
/bàlì-wÁ-A/	[bàlìwé]	‘cow’
/làtɔ̃-wÁ-A/	[làtɔ̃wá]	‘onion’ (Newman/Newman 1977b: 20)
/gwàn-wÁ-A/	[gʷànwá]	‘horse’ (Newman/Newman 1977b: 20)
/jã-hÁ-A/	[jãhá]	‘animals’
/làtím-hÁ-A/	[làtímhá] ⁹⁸	‘onions’ (Newman/Newman 1977b: 20)
/bò-Á-A/	[bòwá]	‘leopards’
/fɔ̃-Á-A/	[fɔ̃á]	‘eggs’ [WL-G1]

Nasalisation spreading is not attested in Deelɔmɔ and Gwaandama, nor in Wala, a variety that is generally subsumed under Gvɔvɔma (cf. §1.2.1). Compare the following Gvɔvɔma examples with those in Wala, Deelɔmɔ and Gwaandama. Note that the order of the varieties differs from the general order depicted in this thesis.

⁹⁸ Note the change in the noun root from singular to plural (see §4.2.7).

Gvɔvɔma	Wala	Deelɔmɔ	Gwaandama ⁹⁹	
[swìyáwǎ́]	[swíyáwá]	[fláwà]	[swìyáwá]	‘chicken’
[nǎwǎ́]	[nawá]	[jómà]	[nàmwà]	‘flesh, meat, animal’
[zwìyǎ́]	?	[zwìyà]	[tsíràyà]	‘younger sibling’
[kùhé]	[kùhé]	[ámhà]	[kùmdzìyá]	‘mothers’

Nasalisation spreading is not indicated elsewhere in this thesis, as it is a regular phonological process.

2.2 Autosegmental features

2.2.1 Tonemes

Anyanwu (2005: 7) defines tone as “the distinctive pitch level of a syllable”. A language is classified as a tone language if the core meaning of a word is changed only by pitch (Yip 2007: 229). Nvngvɔrama is an example of such a language, having two tonemes with the tone levels high and low. The tone-bearing unit (henceforth TBU) is the syllable (Yip 2007: 236f.). The Nvngvɔrama data includes only a small number of minimal pairs, some of which are presented below.¹⁰⁰ Newman and Newman (1974: 113) estimate for Nvngvɔrama that “words which are distinguished from each other only by differing tones [...] probably represent less than 5% of the words in the language”.

Deelɔmɔ

<i>tómá</i>	‘to desire sth. to eat’	<i>tòmà</i>	‘blood’
<i>dá</i>	‘small’	<i>dà</i>	‘to reserve sth. (e.g. food)’
<i>móm</i>	‘to eat (a fruit)’	<i>mòm</i>	‘to build’

Gvɔvɔma

<i>jávǎ́</i>	‘to be tired’	<i>jává</i>	‘fresh cut grass for animals’
<i>fúrí</i>	‘narrow’	<i>fúri</i>	‘sth. white’
<i>sówá</i>	‘part of arrow’	<i>sòwá</i>	‘rope; fly’ (Newman/Newman 1977b: 15)

Gwaandama

<i>wáhàlǎ</i>	‘cough’	<i>wáhàlà</i>	‘wood, log’ (Sabe 2014: 39)
<i>tsámáká</i>	‘laziness’	<i>tsámákà</i>	‘slippery’
<i>támká</i>	‘enjoyment’	<i>támkà</i>	‘ladder’
		<i>tsámàkà</i>	‘(a specific) tree’
		<i>támkà</i>	‘sweet, delicious’ (Sabe 2014: 39)

Contour tones do not have tonemic status in Nvngvɔrama. Rising contour tones, on the one hand, could not be found in the Nvngvɔrama data, with the exception of the distant demonstrative proform *kwǎ́* in Gwaandama (cf. §4.4.7).¹⁰¹ Falling contour tones, on the

⁹⁹ Source for Wala: [WL-L3]. Sources for Gwaandama: [WL-N1] and own data.

¹⁰⁰ Some of these pairs may not be considered ideal minimal pairs as they originate from different lexical categories. However, they have been included here due to the rarity of true minimal pairs.

¹⁰¹ According to Newman and Newman (1974: 109, 1977b: 25), rising contour tones appear on *-ai-* sequences. However, they are not considered as contour tones in this thesis as they occur on two consecutive syllables, e.g. *dàyi* ‘all’.

other hand, are quite frequent. These falling tones occur for two different reasons. First, they can be intonational features “marking phonological clause final syllables where they are also accompanied by length” (Newman/Newman 1974: 110). They occur in certain interrogative clauses with the general question markers *ní* and *wí*, in the positive imperative where the last syllable is marked by stress, length and a falling contour tone, and in conditional clauses (Newman/Newman 1974: 110f., cf. §3.8.6.4 and §7.2.4.3, §6 as well as §7.4.4.3). Second, falling contour tones can arise when two syllables, one with a high tone and the other with a low tone, merge.¹⁰² The definite article =*Ū* in Gvɔvɔma and Gwaandama is the most common trigger for contour tones (cf. §3.8.5).

Tone patterns on lexemes are very diverse, with almost every possible pattern being detectable. However, a few patterns are more prevalent, such as low-high and high-high on two syllable lexemes and low-high-high and low-low-high on three syllable lexemes (cf. Newman/Newman 1977b: 14 for a more detailed description of Gvɔvɔma). The three varieties Deeləmə, Gvɔvɔma and Gwaandama also differ in their preferred patterns. For example, the nominal form class suffixes display predominantly low tone in Deeləmə, high tone in Gvɔvɔma, but undergo tone copying in Gwaandama (cf. §4.1).


2.2.2 Tonal processes

Tones can influence and interact with other neighbouring tones. Regular tonal processes, also known as tone rules, explain the changes that occur (Anyanwu 2008: 260).

Nvngvɔrama has four tonal processes that are discussed below: tonal polarisation, copying, dissimilation and assimilation. These processes typically do not occur across word boundaries (with one known exception in Gwaandama, see below), allowing for a distinction between free morphemes and affixes and clitics. Both affixes and clitics also share the ability to acquire or cause tone changes from/on the root.

Some grammatical morphemes in Nvngvɔrama are toneless, possibly due to a loss diachronically. These morphemes acquire tone from surrounding TBUs in two ways: The first is through **(progressive) tonal polarisation**, where the morpheme acquires a tone that is the opposite of the preceding TBU. This means that it “acquire[s] its tonal realisation by virtue of standing *in contrast* to the tone of the preceding adjacent TBU” (Anyanwu 2008: 264f., original emphasis). For instance, the pluractional suffix *-nA* does not have an inherent tone in any of the three varieties. Instead, it acquires a tone that is opposite to that of the preceding TBU (indicated by a triangle (‘inverted value’) in the following schema) (cf. §3.3.3.2).

¹⁰² Newman and Newman (1974: 110) claim on the contrary that contour falling tones “never occur on single syllables”.

kángí-na → *kángí-nà*

 H → H

Deeləmə

/kángí-nA/ [kángínà] ‘break into many pieces’
/fú-nA/ [fúnà] ‘cut into pieces’


Gvyvma

/yáhá-nA/ [jáhánà] ‘disperse in many directions’
/gwèl-nA/ [g^wèlné] ‘beg many times’

Gwaandama

/tá-nA/ [t^hánà] ‘melt’
/dù-nA/ [dùnà] ‘look at sth.’


The second way for toneless syllables to acquire tone is through **tone copying**, where the syllable takes on the same tone as that of the preceding or following TBU. In Nungurama, both progressive and regressive tone copying occur. For example, the noun form class suffixes in Gwaandama lack inherent tone, and, in most cases, copy the tone of the preceding TBU (**progressive**). The following schema and examples illustrate this.

yíl-ka → *yíl-ká*

 H → H

Gwaandama

/yíl-kA/ [jíl^hká] ‘road’
/lú-mA/ [lúmá] ‘oil’
/tsírà-yA/ [t^síràyà] ‘younger sibling’ [WL-N1]
/twə̀hə̀-wA/ [t^{hw}ə̀hə̀wə̀] ‘owl’ [WL-N1]

An example of **regressive tone copying** is the past progressive clitic *na=* which has no inherent tone. It copies the tone of the following TBU in all three varieties (cf. §3.8.6.3).

na=ná → *ná=ná*

 H → H

Deeləmə

/na=ná-/ [náná] PROG=1SG
/na=kà-/ [nàk^hə̀] PROG=1PL.INCL

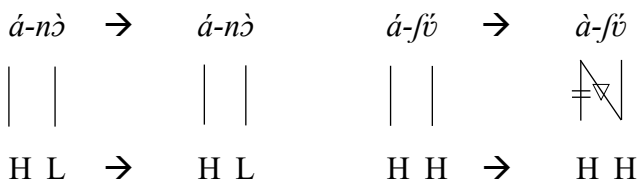
Gvyvma

/na=ná-/ [náná] PROG=1SG
/na=nà-/ [nànà] PROG=2SG

Gwaandama

<i>/na=ná-/</i>	<i>[náná]</i>	PROG=1SG
<i>/na=mà-/</i>	<i>[nàmà]</i>	PROG=2SG

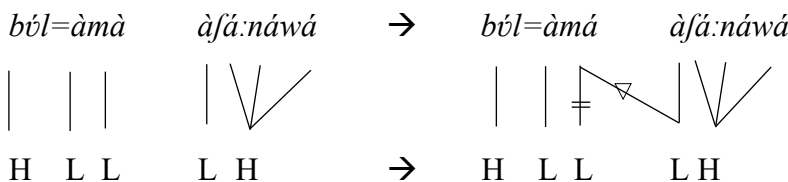
Another tonal phenomenon is **tonal dissimilation**, a process in which two identical tones become less alike, i.e. “the phonetic distance between two phonetically similar entities [...] increases” (Anyanwu 2008: 264). Tonal dissimilation differs from tonal polarisation because it involves a syllable with an underlying tone that changes “when it is in proximity with a syllable of identical tone” (Hyman/Schuh 1974: 100). In Nungvrama, the processes also differ in their direction: tonal polarisation is a progressive process, while tonal dissimilation is regressive, occurring from right to left, because affected syllables precede the affecting syllables. An example of **regressive tonal dissimilation** is the subject agreement marker for nominal form class 1 in Deeləmə, which always acquires the opposite tone to that of the following TBU (of the verb). In accordance with Gvyvma and Gwaandama, it is suggested that the subject agreement marker has a high underlying tone (cf. §6.3.2). This is illustrated in the following schema where the first example shows that the high tone remains because the following TBU exhibits a low tone, while in the second example, the high tone of the subject agreement marker is blocked (indicated by two parallel lines) and instead the tone of the following TBU regressively projects an ‘inverted value’ onto the subject agreement marker.



Deeləmə

<i>/á-nò/</i>	<i>[ánò]</i>	‘s/he heard’
<i>/á-fǔ/</i>	<i>[àfǔ]</i>	‘s/he cut’

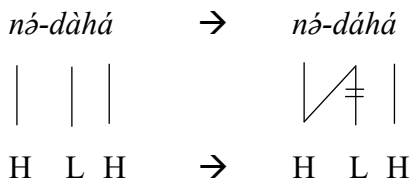
Another case of tonal dissimilation occurs in Gwaandama where the second syllable of the completive marker =*ÀmÁ* obtains a high tone if the following TBU is low (cf. §6.3.3). It is the only example of tones influencing each other across word boundary.



Gwaandama

<i>/ból=ÀmÁ àfá.náwá/</i>	<i>[bólámá àfá.náwá]</i>	‘have struck a match’ (Sabe 1995: 395)
<i>/wàr=ÀmÁ díkávǔ/</i>	<i>[wàràrà díká^hávǔ]</i>	‘have pulled the rope’ (Sabe 1995: 398)

The fourth tonal process in Nvngvrama is **(progressive) tonal assimilation**, where a tone assimilates to the tone of the preceding TBU. For instance, in Gwaandama, the first tone of the modal verb *dàhà* ‘can’ becomes that of the preceding TBU.



Gwaandama

<i>/nà-dàhá-Á/</i>	<i>[nádáhá]</i>	‘I can’ (Sabe 1995: 240)
<i>/mà-dàhá-Á/</i>	<i>[màdáhá]</i>	‘you (sg.) can’ [B-N1]

2.2.3 Stress

Stress is described by Anyanwu (2008: 197) as “a suprasegmental feature of utterances, which can be defined as perceived PROMINENCE” (original emphasis)¹⁰³. It can be expressed by three features, namely increasing loudness, pitch and/or length, and always occurs on a whole syllable in a lexeme, not just on individual vowels or consonants (Anyanwu 2008: 115f., 163, 197).

In Nvngvrama, stress is expressed through length and/or loudness, rather than pitch. This is because pitch is distinctive in Nvngvrama, while stress is not. Typically, the first syllable of a lexeme is stressed, particularly in disyllabic words of all parts-of-speech classes. This phenomenon, known as “stem-initial prominence” (Lionnet/Hyman 2018: 652), is a characteristic feature of Niger-Congo languages in the area of the Macro-Sudan Belt (cf. Idiatov/Van de Velde 2015). However, stress can also occur on syllables other than the first in lexemes with more than two syllables, such as the second syllable in trisyllabic lexemes. The data suggests that certain consonants may influence the distribution of stress, causing it to shift from the initial syllable. For example, the consonant /p/ generally occurs lexeme-initially. In two instances, however, it appears lexeme-medially, in which case the stressed syllable is the one containing /p/. Other phonemes that exhibit the same tendency are /b/, /l/ and /y/.¹⁰⁴ Compare the lexemes on the left, where the first syllable is stressed, with those on the right, where the stress is on the second syllable, possibly due to the initial consonant of the second syllable.

¹⁰³ Anyanwu (2008: 116, 163) also uses other terms such as ‘emphasis’, ‘degree of force’ and ‘greater amount of energy’.

¹⁰⁴ Further research could investigate whether there are additional phonemes causing stress to move to another syllable. See also Lesage (2020: 92ff., 102ff.) who provides a detailed discussion of prosodic prominence in Kam, demonstrating that the phoneme inventory is larger in prosodically strong positions.

Deeləmə

'bàmbàlà	'bow'	<i>fi 'bátà</i>	'poverty'
'lámàlà	'bag'	<i>kwà 'lálà</i>	'adult, elderly person'
'pàkàlà	'field, vast land'	<i>yà 'pílwà</i>	'sheep'

Gyuma

'bàlíwé	'cow'	<i>gù 'bálá</i>	'stone'
'làràwá	'elephant'	<i>zwà 'lìyá</i>	'husband, man'

Gwaandama

'yáláká	'day'	<i>mì 'yáhà</i>	'goat'
'bámáká	'antelope' [WL-N1]	<i>gùr 'bílà</i>	'he-goat' [WL-N1]
'pàhàkà	'law' [WL-N1]	<i>gà 'pónwà</i>	'hyena' [WL-N1]

2.2.4 Intonation

Intonation is not a distinctive feature in Nvngvrama. However, there are general patterns that occur, such as falling intonation towards the end of a declarative clause and rising intonation towards the end of an interrogative clause (for Gyuma cf. Newman/Newman 1974: 110ff.¹⁰⁵, 1977b: 6, cf. §7.2.4). The falling intonation in a declarative clause is a general downdrift, which is “a progressive overall lowering of pitch throughout a phrase” (Anyanwu 2008: 266).¹⁰⁶ The rising intonation, on the other hand, can be either “due to some sort of upstep effect, [...or] due to the suspension of downdrift” (Anyanwu 2008: 268f.).

In contrast to a general downdrift, there is also a phenomenon known as ‘contrastive downdrift’ (Odden 2020: 39), which is a non-automatic downstep. In this case, the pitch of the TBU is lowered due to a floating low tone. This floating tone belongs to a TBU that has been lost diachronically or is not overtly expressed synchronically. It docks onto “the next available TBU in its nearest neighbourhood” (Anyanwu 2008: 268), causing a high tone to be lowered. This phenomenon generally occurs when a floating tone appears between two high tones (Anyanwu 2008: 267, Maddieson 2018: 579, Odden 2020: 39). This is exemplified in the first Gyuma example, where the low tone docks onto the following TBU causing it to be low, whereas in the second example, the tone is already low (cf. §6.3.3 and §6.3.4).

Gyuma

<i>/ná^l-cíné/</i>	<i>[ná^líné]</i>	'I meet'
<i>/ná^l-wùnè/</i>	<i>[návùnè]</i>	'I get up'

¹⁰⁵ However, according to the same source, there is no downdrift. This, combined with little pitch variation, leads the authors to suggest “that Longuda may be developing into a pitch-accent language” (Newman/Newman 1974: 113).

¹⁰⁶ Cf. Kleinewillinghöfer (1996b: 27) who refers to this as “pausal lowering” and describes it as being common in Waja and Tangale.

2.2.5 ATR vowel harmony

Vowel harmony is a common feature in many Niger-Congo languages and some Nilo-Saharan languages (Anyanwu 2008: 283, Casali 2008: 497). Such languages organise their vowel harmony systems “based on the feature [ATR] (Advanced Tongue Root) [...]”. This means that each time, two groups of vowels must contrast in this feature” (Anyanwu 2008: 283) (for more details on the phonetics of the ATR vowel harmony, cf. Maddieson (2018: 569ff.) and Anyanwu (2008: 93)). The implication of the vowel harmony is that only vowels of one set, either [+ATR] vowels or [-ATR] vowels, can occur in a lexical root (Anyanwu 2008: 283). In other words, all vowels in a root harmonise in their ATR value.

Nvngvrama is one of those languages that distinguishes two sets of vowels based on the position of the tongue root. This applies to both oral vowels and nasal vowels. The tables presented in §2.1.2 are combined below to illustrate the division of the two ATR sets.

Deeləmə	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i/ĩ		u/(ũ)	ɪ/ĩ		ʊ/ũ
mid	(ē)	ə	(o)	(ɛ)		(ɔ)/õ
open					a/ã	

Table 24. Vowel inventory of Deeləmə

Gvyvma	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i/ĩ		u/ũ	ɪ/ĩ		ʊ/ũ
mid	e/ē	(ə)	(o)			(ɔ)/õ
open					a/ã	

Table 25. Vowel inventory of Gvyvma

Gwaandama	[+ATR]			[-ATR]		
	front	central	back	front	central	back
close	i/ĩ		u/(ũ)	ɪ/ĩ		ʊ/ũ
mid	(ē)	ə	(o)			(ɔ)/õ
open					a/ã	

Table 26. Vowel inventory of Gwaandama

Vowel harmony in Nvngvrama is progressive, spreading from left to right. This means that suffixes and enclitics, which are morphemes that follow a stem, fall within the domain of ATR vowel harmony of the root they follow and select the vowel that harmonises with the root (cf. Casali (2008: 500)). This is one of the indicators to distinguish free morphemes from suffixes and enclitics. It does not apply to prefixes and proclitics as they precede the noun root and therefore do not harmonise with it. In such instances, vowels of both ATR values can co-occur in one word.

In contrast to most African languages with a ATR vowel harmony system, for instance in neighbouring languages such as Waja (Kleinewillinghöfer 1991: 56ff.), the vowel /a/ in Nvngvrama is not neutral (cf. Anyanwu 2008: 285, Casali 2008: 528f.). Instead, it is the

counterpart of /ə/ (in Deeləmə and Gwaandama) or /e/ (in Gvyvma) in suffixes or clitics¹⁰⁷. Compare the examples below where the capital letter A stands for the harmonic counterparts /a/ and /ə/ or /a/ and /e/, respectively.¹⁰⁸

Deeləmə

/jì-kÁ/	[dʒìkʰà]	‘arrow’
/bál-kÁ/	[bálkʰà]	‘stick’

Gvyvma

/jì-kÁ/	[dʒìkʰé]	‘arrow’
/bàl-kÁ/	[bàlkʰá]	‘stick’

Gwaandama

/jì-kA/	[dʒìkʰə]	‘arrow’
/bál-kA/	[bálkʰá]	‘stick’

Vowel harmony in Nvngvrama does not necessarily apply to loanwords. As a result, loanwords may contain vowels from both sets, as in the examples given below.

Deeləmə

<i>windɔwe</i>	‘window’ (from English)
<i>wàsikáwà</i>	‘letter’ (from Hausa <i>wàsíkà</i>)

Gvyvma

<i>mádúbúyé</i>	‘mirror’ (from Hausa <i>madūbī</i>)
<i>lé:téwà</i>	‘letter’ (from English)

Gwaandama

<i>kèkéwá</i>	‘Keke’ (three-wheeled motor vehicles) [WL-N2]
<i>déslà</i>	‘desk’ (from English) [WL-N2]

Nvngvrama has a higher frequency of [-ATR] vowels compared to [+ATR] vowels. This becomes apparent, for example, in the lists of nouns given in §4.2.3 to §4.2.13. This observation is also noted by Kleinewillinghöfer (1991: 43) for Waja.

Most publications on Nvngvrama do not mention the ATR vowel harmony system (e.g. Hiraki 1986, Sabe 1995) or only provide a brief description that does not cover its full extent (e.g. Newman/Newman 1977b: 61, Sabe 2014). Kleinewillinghöfer’s talk ‘Vokal Harmonie in Longuda’ (1994, later on updated und published online 1994/2019) aimed to fill this gap, present new data and correct some statements made by others. According to Kleinewillinghöfer, Kɔlama has the most complex vowel system. Further data on

¹⁰⁷ In Kɔlama, like in Gvyvma, the counterpart of /a/ is /e/. However, in NF class 9, there are instances where the counterpart is /o/ (compare §4.2.13). This is noteworthy for two reasons: Firstly, in Casali’s (2008: 530) study on ATR harmony in African languages, only Waja displays both a mid-front vowel /e/ and a mid-back vowel /o/ as counterparts of /a/ (Casali 2008: 530). Secondly, the study reveals a clear geographical distribution. The harmonic counterparts /a/ and /e/ seem to be more dominant in West Africa, while /a/ and /o/ is more common in East Africa.

¹⁰⁸ The capital letter A always represents a vowel that falls within the domain of the ATR vowel harmony. In Deeləmə and Gwaandama, A is realised as /a/ or /ə/, while in Gvyvma, it is /a/ or /e/, unless otherwise stated.

Kolama could therefore provide additional insight into the development or reduction of the vowel harmony system in Nvngvrama.

Although ATR vowel harmony systems are more common in other Niger-Congo subgroups, such as Kwa, Gur and Kru, a few other ‘Adamawa’ languages also exhibit vowel harmony (Casali 2008: 505). Kleinewillinghöfer (1996b: 28) mentions the Waja group (cf. Kleinewillinghöfer 1991: 54ff., Blench 2020a), Burak-Loo of the Bikwin group and, of course, Nvngvrama of the northwestern ‘Adamawa’ languages. Elders (2006: 56) states that some ‘Adamawa’ languages seem to have lost the ATR vowel harmony feature, but still show traces of it, such as the languages Kulaal and Mundang. Vowel harmony was also observed in the neighbouring Chadic language Tangale (Jungraithmayr 1971, Kida 1993: 90ff.), which is believed to be an innovation resulting from contact with ‘Adamawa’ languages (Kleinewillinghöfer 1990: 95). Therefore, ATR vowel harmony can be considered a regional feature.

2.3 Syllable structure

2.3.1 General remarks

A syllable is minimally composed of a nucleus, which may be preceded by an onset and/or followed by a coda (Catford 2001: 170). The nucleus and the coda together are called a rhyme. Therefore, it can be said that “the syllable is composed, so to say, of a certain number of slots, of syntagmatic positions, in which subsets of the phonological segments of the language may occur in well-formed utterances” (Anyanwu 2008: 191).

In Nvngvrama, the nucleus is usually a vowel or nasal vowel (represented as V in this chapter), while the onset and coda are consonants (represented as C) (cf. §2.3.2, §2.3.3 and §2.3.4 for details and exceptions). The most common syllables in all Nvngvrama varieties are light, monomoraic syllables (V and CV) and heavy, bimoraic syllables (CVC) (cf. Newman/Newman 1977b: 11f., Sabe 2014: 40). In addition, the syllable VC occurs, but rarely and mostly in grammatical markers, not lexical items. Therefore, Nvngvrama has the following syllable structures in all three varieties:

Syllables	Shape
light syllables	V
	CV
heavy syllables	CVC
	VC

Table 27. Syllables in Nvngvrama

The table below displays examples from various lexical categories. The full stop indicates a syllable boundary.

	Deelomə	Gv̄v̄v̄ma	Gwaandama	Gloss
V	= <i>ɪ̃</i>	= <i>ɪ̃</i>	= <i>ɪ̃</i>	‘him/her’ (3SG.OBJ)
	<i>á-</i>	<i>á-</i>	<i>á-</i>	agreement marker of NF class 6 with interrogative proforms

CV	<i>bí.mà</i>	<i>bù.má</i>	<i>bí.má</i>	‘dirt, filth’
	<i>fà</i>	<i>fà</i>	<i>fà</i>	‘to find’
	<i>zwá.yà</i>	<i>zwí.yé</i>	<i>dzwí.yó</i>	‘child’
	<i>mò</i>	<i>mì.ná</i>	<i>mù</i>	‘you (sg.)’
	<i>-kÁ</i>	<i>-kÁ</i>	<i>-kA</i>	NF class 7
CVC	<i>bál.ká</i>	<i>bàl.ká</i>	<i>bál.ká</i>	‘stick’
	<i>nàm</i>	<i>yím</i>	<i>ním</i>	‘to die’
	<i>mìr</i>	<i>mìr.ná</i>	<i>mur</i>	‘we (excl.)’
VC	<i>àr</i>	<i>ár</i>	<i>àr</i>	‘to call, answer’
	?	?	<i>èm</i>	‘to defecate’ [WL-N1]
	-	<i>íb-, ík-, ím-</i>	-	agreement markers with demonstratives

Table 28. Examples of different syllable shapes

Another heavy syllable, namely CV:, also occurs in Nɔ̀ngɔ̀rama, but it is the result of morphophonological processes. An example from Gɔ̀yɔ̀ma may illustrate this.

Gɔ̀yɔ̀ma

CV: /kà-à-tàm/ [k^hà:-t^hàm] ‘you (pl.) were crying’

In Nɔ̀ngɔ̀rama, diphthongs that cannot be explained morphophonologically are interpreted as CVC structures, as suggested by Anyanwu (2008: 57).¹⁰⁹ The coda in these cases is always an approximant /w/ or /y/.

Deeləmə

déy ‘isn’t it?’

dáw ‘to make sth., put sth. somewhere’

Gɔ̀yɔ̀ma

càwká ‘leg’

Gwaandama

tówmátówmá ‘sand colour’

dàw ‘lie down’

Most lexical stems are mono- or disyllabic, but there are up to six syllable lexemes, which are mostly compounds (cf. Newman/Newman 1977b: 7ff.). Almost all affixes and clitics are monosyllabic and have a V or CV structure.¹¹⁰

2.3.2 Nucleus

In Nɔ̀ngɔ̀rama, the nucleus always consists of a vowel or nasal vowel. While syllabic consonants like nasals or trills can function as nuclei in other languages (Catford 2001: 170, Anyanwu 2005: 182), they cannot do so in any of the three varieties, with one

¹⁰⁹ This was also implemented in other ‘Adamawa’ languages, for example Tupuri and other Kebi-Benue languages (Elders 2006: 53).

¹¹⁰ An exception is the completive *-ÁmÁ* (§3.8.6.5).

exception in Gvyvma: the subject agreement marker for the first and second person singular in future clauses (cf. §6.3.6). Syllables that consist of only a nucleus are primarily grammatical morphemes. They only rarely occur in lexical words, and when they do, they always appear at the beginning of a lexeme.¹¹¹ The list below contains most of these lexical lexemes. The syllables in the list and further below are separated by full stops to clarify their structure.

Deeləmə

ú.nà.jó ú.nà.jír ‘nine’
ǝ̃ ‘yes’

Gvyvma

é ‘to leave sth., to stop doing sth.’

Gwaandama

*ù.là*¹¹², *ù.tà* ‘paternal kinship group’ [WL-N1], (Sabe 2014: 53)
à.ràm.kà ‘mantis’ [WL-N1]

2.3.3 Onset

The three varieties share the characteristic that all phonemic consonants can serve as an onset of a syllable. While all consonants can be placed morpheme-initially, only a subset (/b/, /k/, /s/, /h/, /m/, /n/, /l/, /r/, /c/ and /w/) can be used as an onset morpheme-internally. The list below provides some examples.

Deeləmə

hó.nà ‘bad’
yá.hà.wà.là ‘ghost’
jó.mà ‘sour’
gwà.ká.là ‘male teenager’

Gvyvma

ká.rá.sǝ̃.là ‘wing’
dǎ.sí.ká ‘door’
nì.cé ‘to count, read’
sí.là ‘to tear’

Gwaandama

lá.há.tà ‘tiredness’
gvè.bá.lá ‘stone’
mwá.rá ‘big’
jì.má.wá ‘knife’

In Deeləmə, unlike in the other varieties, the glottal stop [ʔ] can be the initial sound of a bound morpheme (cf. §4.2.10) in order to maintain its silbility: where there is a glottal

¹¹¹ This is also often the case with loanwords as they may have a vowel word-initially: e.g. *ófiswà* ‘office’ (from English), *àgógówá* ‘watch’ (from Hausa *àgōgo* ‘clock, watch’) (both from Gwaandama, [WL-N2]).

¹¹² But *wvla* in Gvyvma.

stop in a bound morpheme in Deeləmə, there is only a vowel in Gʷyʷma¹¹³ and in Gwaandama. When the vowel of the bound morpheme and the preceding vowel are of the same quality, they are pronounced as one long vowel in Gʷyʷma and Gwaandama. It is important to note, however, that not all bound morphemes with an initial vowel show a glottal stop in Deeləmə. For example, the NF class marker A merged with the REF marker -A ([a] or [ə]) is preceded by a glottal stop, while the final vowel -A in a verb is not. It often even merges with the previous vowel. This is illustrated by the following examples, which are always compared to Gʷyʷma and Gwaandama.

Deeləmə		Gʷyʷma		Gwaandama ¹¹⁴		
/ná- 'à/	[náʔà]	/ná-á/	[ná:]	/ná-á/	[ná:]	‘hands, arms’
/káɓ- 'à/	[káɓʔà]	/káɓ-á/	[káɓá]	/káɓ-à/	[káɓà]	‘foreheads’
/pɔ- 'à/	[pɔʔà]	/pɔ-á/	[pɔá]	/pɔ-à/	[pɔà]	‘thighs’
/má- 'à/	[máʔà]	/má-á/	[má:]	/má-á/	[má]	‘bodies’
/móm-á/	[mómá]	/mwòm-á/	[mwòmá]	/mwàɓ-á/	[mwàɓá]	‘will build’
/yà-á/	[yá]	/yà-à/	[yà]	/yà-á/	[yá]	‘will fall’

¹¹³ Two exceptions have been attested in the Gʷyʷma data where a glottal stop appears as an initial sound of an NF suffix when followed by a definite marker. Elstermann et al. (2021: 341) hypothesise from this that “the glottal stop after the class marker 6~A may be the result of dissimilation indicating the boundary between two different morphemes”. Compare the following examples:

Gʷyʷma

swa-a *mwar-a*
heart.A.6-REF big-6
‘big hearts’ [S-G2]

swa- 'a=v *ha* *mwar-a*
heart.A.6-REF=DEF COP big-6
‘the hearts are big’ [S-G2]

ma-a *far-a*
field.A.6-REF red-6
‘red fields’ [S-G2]

ma- 'a=v *ha* *far-a*
field.A.6-REF=DEF COP red-6
‘the fields are red’ [S-G2]

However, I believe the occurrence of the glottal stop to be an inconsistency in the data as these are the only examples, and two very similar examples in the same questionnaire (see below) do not exhibit such a ‘dissimilation process’.

ywa-a *mwar-a*
breast-A.6 big-6
‘big breasts’ [S-G2]

ywa-a=v *ha* *mwar-a*
breast-A.6=DEF COP big-6
‘the breasts are big’ [S-G2]

swa-a *mwar-a*
house-A.6 big-6
‘big houses’ [S-G2]

swa=v *ha* *mwar-a*
house.A.6=DEF COP big-6
‘the houses are big’ [S-G2]

The phonology of the Gʷyʷma variety, as described by Newman and Newman (1977b), does not attest to the use of a glottal stop either, except in word-initial position. According to their analysis, every syllable in Gʷyʷma must contain a consonant in the onset (1977b: 11) and therefore a glottal stop is considered a phoneme occurring before a vowel (1977b: 23f.), e.g. *ʔàpínwá* ‘corn’, *ʔàráɓ* ‘call you’. Cf. Boyd (1989: 200) for a general overview on the status of the glottal stop in ‘Adamawa’ languages, Elders (2006: 49f.) on Kébi-Bénue languages that form a subgroup of ‘Adamawa’ languages and Anonby (2008: 54f.) on a similar problem for Mambay.

¹¹⁴ Sources for Gwaandama: [WL-N1] and own data.

The Deeləmə examples indicate the glottal stop with <'> since there is no established phonological rule for its addition.

Nɔŋgɔɾama does not allow syllables with a complex onset, except for the syllable CrV, where C is either /f/ or /b/ and V is usually /a/ or /ə/.¹¹⁵ However, underlyingly, these are two syllables: CV.rV. The first vowel is a “short transition sound [...] which was found to be less than half the length of the normal vowel”. The vowel has a tone of its own that can be “distinct from that of the following syllable” (Newman/Newman 1977b: 26) (cf. Möller Nwadigo (n.d.: 49) who suggests the same analysis for Baa). The following lexemes illustrate this.

Deeləmə

<i>fí.rá.mà</i>	‘kindness, goodness, blessing’
<i>bí.rá</i>	‘many’

Gvyɔɾma

<i>swàm.bí.rà.wá</i>	‘devil’
<i>mám bà.bí.rà.mà</i>	‘yellow’ (lit. water tree)
<i>gì.rám.ká</i>	‘cock’ (Newman/Newman 1977b: 26)

Gwaandama

<i>gà.bí.ràm.wà</i>	‘tick’ [WL-N1]
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2.3.4 Coda

Only the voiced consonants /b/, /m/, /n/, /l/, /r/, /w/ and /y/ are allowed in the coda of a syllable. As they are frequent and also occur as an onset, they are the least restricted consonants regarding their position in a syllable.

Deeləmə

<i>fám.hà</i>	‘mothers’
<i>nún.gv.rá.mà</i>	‘Nɔŋgɔɾa language’
<i>gám.nà</i>	‘share, divide’
<i>bál.kà</i>	‘stick’
<i>déy</i>	‘isn’t it?’

Gvyɔɾma

<i>díb</i>	‘to beat’
<i>màr.ná</i>	‘to teach’
<i>nìn.gà</i>	‘to give’
<i>yím.lá</i>	‘death’
<i>càw.ká</i>	‘leg’

¹¹⁵ Loanwords sometimes contain consonant clusters, but in most cases are adapted to the syllable structure of Nɔŋgɔɾama. Labialised consonants are not considered consonant clusters because labialisation is a secondary articulation of the consonant. However, Newman and Newman (1977b: 11f.) describe labialisation and propose CwV and CwVC as possible syllable structures.

Gwaandama

<i>nàm.hà</i>	‘animals’
<i>wán.lá</i>	‘leaf’ [WL-N1]
<i>kìb.tà.wà</i>	‘mat’ [WL-N1]
<i>yà.píl.wá</i>	‘sheep’

That the inventory of initial consonants is much larger than the inventory of final consonants correlates with many other ‘Adamawa’ languages for which this is a common feature. This is in contrast to Ubangi languages, which do not exhibit such differences, according to Boyd (1989: 199).

2.3.5 Vowel weakening

In all varieties of Nungurama, there is a common phenomenon of weakening or centralising the last vowel of a noun in fast speech when it is followed by another lexeme, affix or clitic (cf. Newman/Newman 1977b: 60). It is most prevalent when the consonants /k/ and /t/ precede the weakened vowel. This weakening phenomenon specifically applies to the vowel /a/. It is retained when there is a brief pause after the noun.

For example, the vowel in coda position of a noun class suffix becomes [ə] when followed by an attribute or a suffix. The examples below demonstrate the difference by presenting both the phonological and the phonetic forms.

Deeləmə

<i>/dikà sikà/</i>	<i>[dik^hə sik^hà]</i>	‘new shirt/cloth’
<i>/á cákà=rà/</i>	<i>[á cák^hə=rà]</i>	‘on the leg’

Gvyvma

<i>/dibàkà súká/</i>	<i>[dibàk^hə súk^há]</i>	‘new shirt’
<i>/á zíkà-yÁ=Û/</i>	<i>[á zík^həjôw]</i>	‘in(side) the town’

Gwaandama

<i>/svnwa ju/</i>	<i>[svŋwə ju]</i>	‘my dog’ (Sabe 2014: 40)
<i>/diká kàbì/</i>	<i>[dik^hə k^hàbì]</i>	‘this shirt’

Vowel weakening is not obligatory. In slow speech and elicited clauses, both the ‘normal’ and the weakened vowel occurred without a change of meaning. Vowel weakening is therefore not indicated throughout this thesis. However, in those instances in which vowel weakening has become lexicalised, the weakened vowel is written out, for example with some numerals such as ‘six’ *nàkánàkwàyi* in Gvyvma and *nàkánàkwì* in Gwaandama and ‘twenty’ *kótànátàkwá* in Deeləmə (cf. §3.7.2).

3. Parts-of-speech classes

3.1 General remarks

The term parts-of-speech is often used interchangeably with other terms such as ‘word classes’, ‘lexical categories’ or ‘grammatical categories’. I follow the definition of Schachter and Shopen (2007: 1), who define parts-of-speech as “major classes of words that are grammatically distinguished in a language”. It is widely acknowledged that there are two classes of parts-of-speech classes, called open and closed classes in Schachter and Shopen (2007: 3)¹¹⁶, which have significantly different functions (cf. Sasse 1993, Givón 2001a).¹¹⁷ Open classes, on the one hand, consist of an unlimited number of lexemes, typically content or lexical words that “represent our shared physical, cultural and internal universe” (Givón 2001a: 45). These classes are nouns, verbs, adjectives and adverbs. Closed classes typically consist of a small and fixed number of members, which frequently correspond to function words, such as pronouns, proforms, particles and conjunctions (Payne 1997: 20, Schachter/Shopen 2007: 24, 52). Function words can be further divided into two types: grammatical and derivational morphemes. Grammatical morphemes “partake in the grammatical structure of clauses” (Givón 2001a: 45). They may be free morphemes or clitics that form a phonological lexeme with the root they attach to (cf. Dixon/Aikhenvald 2002: 13, 19, 25, 27). Derivational morphemes, on the other hand, are grammaticalised content words but their description may not always be straightforward (Sasse 1993: 198). They are typically affixes positioned closer to the root than clitics (cf. Payne (1997: 173) on the order of derivational and inflectional operations on the verb).

Content words prototypically fulfil specific functions, such as verbs functioning as predicates and nouns serving as the “head of a term” (Dik 1997: 151). They also share certain morphosyntactic or formal properties, such as distribution and categorisation based on features like person, number, aspect or tense (Sasse 1993: 195, Dixon 2004: 2, Schachter/Shopen 2007: 1ff.). However, Schachter and Shopen (2007: 1) as well as Dixon (2004: 2) argue that relying solely on familiar parts-of-speech definitions can be inadequate and unclear in many cases. Therefore, when describing parts-of-speech in a particular language, it is important to prioritise form and function over semantics. This principle is applied in the following description of the parts-of-speech classes in Nvngvrama, for instance, by describing the interrogatives in two different chapters due to their form (cf. §3.6.6 and §3.8.7).

The following subchapters introduce the different parts-of-speech classes in Nvngvrama and provide examples to illustrate their form and semantic notions or refer to other chapters where they are discussed in greater detail.

¹¹⁶ Other terms occur in the literature, such as major and minor grammatical categories in Payne (1997: 32).

¹¹⁷ It is important to remember that theoretical considerations on parts-of-speech have mainly been developed through studies on European languages. Therefore, these principles may not always be applicable to non-European languages, as demonstrated, for instance, by Sasse (1993, cf. Rijkhoff 2002).

3.2 Nouns

3.2.1 General remarks

Lexemes are usually classified as the lexical category ‘noun’ when they refer to names of people, places or things that are temporally stable, complex, concrete, compact or countable. They function as an argument or a head of an argument and can also serve as a predicate with or without a copula. Nouns typically have inflectional features such as case, number and gender. However, the specific arrangement of grammatical and semantic differences is language-specific (Givón 2001a: 51, Schachter/Shopen 2007: 5ff., Haspelmath/Sims 2010: 82).

Rijkhoff (2002: 12) distinguishes three types of languages with regard to nouns: “1. languages without a major word class of nouns; 2. languages in which nouns cannot be distinguished from other word classes (verbs, adjectives); 3. languages with a distinct class of nouns”. Nungvrama belongs to the third type because nouns are easily identified by the nominal form classes to which they are assigned and by their agreement marking on dependent attributes as well as verbs. Nouns, verbs and adjectives can be distinguished by their syntactical positions in a phrase or clause and their morphophonological differences (cf. §3.4.1 and §4.4.2). While adjectives are formally closer to nouns than verbs, nouns are bound to a deriflection class and gender (cf. §4.1). Adjectives, on the other hand, depend on the gender of a head noun and take an agreement suffix accordingly.

In Nungvrama, a noun minimally consists of the root, which is mono- or disyllabic. Polysyllabic roots with more than two syllables often originate from compounds diachronically. The general syllable structure follows a CV and CVC pattern, with light syllables that consist of a vocalic nucleus being infrequent in nouns. Each noun root is assigned to at least one nominal form (NF) class, which is usually overtly marked by a suffix indicating number. Proper nouns and toponyms do not have an overt NF class suffix but have agreement marking on most attributes, as do all other nouns. The NF class suffixes have the shapes C, CV or V and are discussed in detail in §4.2. In the citation form and in certain grammatical contexts, a referential suffix *-A* is added to the noun (or merges with the preceding vowel, cf. §3.2.2). In addition, a definite article can cliticise to the noun, forming a phonological unit with it (cf. §3.8.5). The following figure shows the maximum form a noun can have.

Noun stem			
Noun root	Nominal form class	Referential suffix	Definite article
N	-NF	-REF	=DEF

Figure 1. Structure of nouns

Examples of nouns are given in §3.2.2 on the REF marker, in §3.8.5 on the definite particles and in §4.2.1 with a detailed discussion of the NF classes and their semantic tendencies, agreement marking and derivation.

3.2.2 Referential suffix -A

The suffix *-A* follows the NF class marker of a noun (cf. §3.2.1 and §4.2).¹¹⁸ It has a low tone in Deeləmə (-À), a high tone in Gyyuma (-Á) and it is inherently toneless and copies the preceding tone in Gwaandama. The examples below demonstrate the use of the suffix following the noun root and the NF class suffixes.

Deeləmə

/ká b -l-À/	[káblà]	‘forehead’
/yí-r-À/	[yírà]	‘person, man’
/yí-b-À/	[yíbà]	‘people’

Gyyuma

/bàlǐ-w-Á/	[bàlǐwé]	‘cow’
/zwá-b-Á/	[zwábá]	‘children’
/tò-m-Á/	[tómá]	‘blood’

Gwaandama

/lú-m-A/	[lúmá]	‘oil’
/bàmbà-l-A/	[bàmbàlà]	‘heart’
/bwá-l-A/	[bwá alá]	‘salt’ [WL-N1]

Some NF class suffixes have the syllable structure CV. In these cases, the suffix *-A* is not present in the surface structure. However, in line with the examples provided above, it is hypothesised that it merges with the vowels of the NF class suffixes, leaving no trace. The following examples illustrate this assumed process. Note that in Gwaandama, both the NF class suffixes and the suffix *-A* copy the tone of the preceding TBU.

Deeləmə

/wár-tÀ-À/	[wártà]	‘wedding’
/fà-kÀ-À/	[fàkà]	‘rainy season’
/dá-kÀ-À/	[dákà]	‘road’

Gyyuma

/bàlǐ-hÁ-Á/	[bàlǐhé]	‘cows’
/tén-Á-Á/	[téné]	‘rooms’
/bàl-tÁ-Á/	[bàltá]	‘sticks’

Gwaandama

/yíl-kA-A/	[jilk ^h á]	‘road’
/nàm-hA-A/	[nàmhá]	‘animals’ [WL-N1, WL-N3]
/gùb-A-A/	[gùbà]	‘water-carrying pot’ [WL-N1]

¹¹⁸ Unlike Elstermann et al. (2021: 334), I do not consider this morpheme as a clitic that always attaches to the rightmost position of the noun phrase. The only instances in my data that would suggest such an analysis are the two examples provided by Elstermann et al. (numbered (11c) and (14b) in their article), which are cited from Newman and Newman (1977b: 70) and Meek (1931: 365) respectively. Their example (11b), which they use to support their analysis, simply shows an agreement marker.

In Gʷyʷma, the suffix can be nasalised under two conditions which are discussed in §2.1.3.5.

The full range of functions of the suffix has yet to be studied in detail. Provisionally, the suffix will be referred to as a referential marker (REF), following Kastenholz (2012: 136), who describes a similar marker, a suffix *-i*, in the Almé variety of Pɛɛ. Four functions of the REF marker in Nʷngʷrama have been identified so far. First, it is compulsory for the citation form of a noun. Examples of the citation form were provided above.

Second, the particle is used when referring to aforementioned entities. For instance, in example (10), ‘my house’ is new information, whereas in example (11), ‘my house’ is previously mentioned and therefore already known information.

Deeləmə

- (10) *fʷá-w* *wá-ɲì*
house-W.3 3-1SG.POSS
‘my house’

- (11) *fʷá-w-à* *wá-ɲì*
house-W.3-REF 3-1SG.POSS
‘my house (the one we talked about)’

Third, it tends to occur with specific nouns or noun phrases that lack elements of inherent specificity, such as possessive pronouns, demonstratives or certain interrogatives. For instance, the noun in example (12) is non-specific and does not exhibit that marker, while in example (13), it is specific and is therefore marked with the referential marker.

Deeləmə

- (12) *à-fá* *gá* *fʷá-w=gà*
3SG-find.FUT NEG house-W=NEG
‘s/he will not have a house’

- (13) *à-fá* *gá* *fʷá-w-à=gà*
3SG-find.FUT NEG house-W-REF=NEG
‘s/he will not have this particular house’

The second and third functions described above occur mainly in Deeləmə. In Gʷyʷma and Gwaandama, the definite particle =*Ũ* is more commonly used in these contexts (cf. §3.8.5 below).

Fourth, the referential marker typically appears in pausa position, even when introducing new or non-specific information. This is demonstrated in the following examples.

Deeləmə

- (14) *ná-dv̄* *hòyá-w-à*
1SG.IMP-see snake-W-REF
‘I see a snake’

- Gvɔvɔma**
 (15) *ná-níngí* *zwí-y-é=ù* *gwàrtfú-w-é*
 1SG.IMP-give child-Y-REF=DEF fright-W-REF
 ‘I gave the child a fright’

- Gwaandama**
 (16) *à-nǎ* *yè* *làkì-w-à*
 3SG-give.FV 3SG.OBJ hoe-W-REF
 ‘s/he gives him/her a hoe’ [S-N2]

However, there are some exceptions in the data that cannot be accounted for yet. For instance, in example (17) in Deeləmə, the object ‘stone’ is clefted but only has an optional REF marker (indicated by the brackets). In the Gvɔvɔma example (18), two clauses are juxtaposed. Although in pausa position, the noun ‘stone’ does not show the REF marker.

- Deeləmə**
 (17) *kó* *gùbá-l(-à)* *mà-dáw*
 even stone-L(-REF) 2SG-put

á *làmtà-l-á* *lì-bá* *dá*
 SPAT bag-L.5-REF 5-DEM1 if
 ‘even if you put a stone in this particular bag, ...’

- Gvɔvɔma**
 (18) *á-sí* *gùbá-l* *ń-swì*
 3SG-take stone-L 3SG.SR-throw
 ‘s/he took a stone, (then) s/he threw it’

Kastenholz (2012: 131) notes that the occurrence of a particle in pausa position and its deletion in all other environments is “a well-known phenomenon in Central Adamawa languages”. For example, a similar particle to the one found in Nungvɔrama is present in Kebi-Benue languages. Its occurrence is syntactically motivated because in Kebi-Benue languages, such as Mambay and Mundang, the final vowel or even the final syllable is dropped when the noun occurs in a clause (known as the ‘linked form’), but is retained when the noun occurs before a pause, including its citation form (known as the ‘free/full form’) (Elders 2006: 63).¹¹⁹ This phenomenon is also observed in other ‘Adamawa’ languages such as Waja, Lɔŋto and Perɛ, where a final vowel is dropped in the same environment (Kleinewillinghöfer 1991: 92, 2012: 7, Kastenholz 2012: 131).

3.3 Verbs and copulas

3.3.1 Verbs

Verbs are a major parts-of-speech class cross-linguistically, including Nungvɔrama. Verbs have a semantic function of depicting actions and processes, among others. They are often

¹¹⁹ Boyd (1974, cited in Elders 2006: 63) calls this marker “voyelle d’appui” and Hagège (1974, 1975, cited in Elders 2006: 63) describes it as “a pause suffix”.

temporally unstable, compact, complex and concrete (Givón 2001a: 52). For Schachter and Shopen (2007: 9), as per Langacker, the key feature is “the foregrounding of temporal relations (relations that are anchored in time) or of relations concerned with process”. ‘Foregrounding relations’ refers to the level of communication that is highlighted through verbs. Functionally, verbs are characteristically predicates. They can be inflected by tense, aspect, mode, voice and polarity through morphological or syntactic means. All languages differentiate transitive and intransitive verbs, sometimes through different grammatical constructions. Often, there is a subclass of copula verbs or of active and stative verbs (cf. Givón 2001a: 70ff.).

Nvngvrama verb roots are predominantly monosyllabic, although a small number of roots are disyllabic. Verbs can have both open and closed syllables. All verbs have lexical tone, and all combinations of low and high tones are permitted. The list below provides examples of verbs with different syllable structures and tone patterns.

Deeləmə	Guyuma	Gwaandama [WL-N1]	
<i>fà</i>	<i>fà</i>	<i>fà</i>	‘to find’
<i>dú</i>	<i>dú</i>	<i>dú</i>	‘to cook’
<i>dòm</i>	<i>dòm</i>	<i>dwùm</i>	‘to sleep’
<i>mòm</i>	<i>mwòm</i>	<i>mwàb</i>	‘to build’
<i>ɟìb</i>	<i>dìb</i>	<i>dàb</i>	‘to beat’
<i>wúmà</i>	<i>wúmè</i>	<i>wúmà</i>	‘to open’
<i>hìntír</i>	<i>sótír</i>	<i>hìntír</i>	‘to show/teach’

In Nvngvrama, verb stems are derived by adding verb extensions to the verb root. These verb extensions can co-occur on one verb, resulting in more complex verb stems (cf. §3.3.3).

The verb, with or without verb extensions, can form a phonological unit with preverbal subject agreement markers, aspect markers, a postverbal ‘final’ vowel (FV) that likely serves as a tense marker, object pronouns and verbal particles, among others. The copula is more restricted regarding its possible phonological form (cf. §3.3.2). The figure below displays the order of the various affixes and clitics and refers to the relevant chapters.

Preverbal particle (§3.8.5)	Subject agreement (§4.4.10)	Aspect markers (§6.3)	Verb root	Verb stem			Final vowel (§6.2.2)	Object pronouns (§3.6.3)	Postverbal particles (§3.8.5)		Tense marker ¹²⁰ (§6.2.2)	Negation particle ¹²¹ (§3.8.8)
				Verb extensions (§3.3.2, 3.3.3.2, 3.3.3.3)					=VEN	=CPL ¹²³		
PROG=/ SR= ¹²²	SBJ-	ASP-	V	-CAUS	-PLU	-RLT	-FV	=OBJ	=VEN	=CPL ¹²³	=NPST	=NEG

Figure 2. The phonological verb

¹²⁰ Only in Guyuma, cf. §6.2.2.

¹²¹ Only in Guyuma, cf. §6.5.

¹²² The progressive and the strict relative preverbal particles cannot co-occur.

¹²³ Object pronouns and the completive particle cannot occur on the same verb stem. In these cases, an independent object pronoun (§3.6.3) must be used.

Many examples can be found throughout the following chapters, so only a few are given here.

Deeləmə

- (19) *bá-fî-n* *nəm-à*
 3PL.IMP-cut-PLU meat-W(.REF)
 ‘they are cutting meat into pieces’
- (20) *mà-fîn* *nə* *mwár-y-à* *nì* *wá*
 2SG-meet INST older.brother-Y.REF 1SG.POSS INT
 ‘did you meet (with) my older brother?’

Guyuma

- (21) *sìl-gí-n-dír=jír=wá*
 split-CAUS-PLU-RLT=1PL.EXCL.OBJ=VEN.NPST.FV
 ‘splitting (it) over for us with something here’ (B. Newman 1978: 26)
- (22) *nà-è=gè*
 2SG-leave=NEG
 ‘you do not leave’

Gwaandama

- (23) *Gwà:ndì-b-á* *nà=bà-pisî-n=bà*
 Gwaanda-B-REF PROG=3PL-shoot-PLU=3PL.OBJ
 ‘Gwaanda people were shooting them’ [B-N4]
- (24) *ná-gwár=àmá* *gùngəl-ká=ù*
 1SG-close=CPL door-KA=DEF
 ‘I have closed the door’ (Sabe 1995: 398)

3.3.2 Copulas

Pustet (2003: 5) defines a copula as “a linguistic element which co-occurs with certain lexemes in certain languages when they function as predicate nucleus”. According to Hengeveld (1992: 32), copulas have “empty” semantics, which means that they add no meaning to the phrase.

In Nvngvrama, copulas occur between a non-verbal predicate and its argument, which is one of the three “most widely acknowledged syntactic functions” (Pustet 2003: 2). They share many features with verbs, such as the ability to add verb extensions and subject agreement markers. Therefore, they may be referred to as ‘verbal copulas’ (cf. Curnow 2000: 3).

	Deeləmə	Gvyvma	Gwaandama
nominal predicates ¹²⁴			
COP.PST.NOM	<i>hárá</i>	<i>har</i>	<i>hárá</i> ¹²⁵
COP.FUT.NOM	<i>ỳvrá</i>	<i>yivwã</i> ¹²⁶	<i>ỳvrá</i>
other non-verbal predicates			
COP.PST(=N)	<i>háýá(=n)</i>	<i>há</i>	<i>há</i> ¹²⁷
COP(=N)	<i>hà(=n)</i>	<i>hà</i>	<i>hà</i> ¹²⁸
COP.FUT(=N)	<i>ỳwá(=n)</i>	<i>ỳwá̃</i>	<i>yvwá</i> ¹²⁹

Table 29. Copulas¹³⁰

The copulas are probably derived from two roots, *há* and *ỳv*, although their etymology is unknown. The following explanations may account for the surface forms:

- Nominal predicates use copulas with /r/, which may come from the relational verb extension *-rÍ* (cf. §3.3.3.3). However, the final vowel in the forms *hara* and *hárá* in Deeləmə and Gwaandama, respectively, remains unexplained.
- For non-verbal predicates other than nominal predicates that refer to the present, the root *há* takes on a low tone. The preceding portmanteau morphemes may cause this, as the subject agreement markers have merged with the imperfective auxiliary resulting in floating low tones. However, this floating tone only occurs in Gvyvma and Gwaandama, not in Deeləmə (cf. §6.3.3).
- All forms referring to the future have the non-past marker =A (=Á in Deeləmə and Gwaandama and =Ā in Gvyvma). In Gvyvma, the final vowel is also nasalised as described in B. Newman (1978) (cf. §6.2.2).
- In Deeləmə, a nasal =n attaches to the copula with some adjectival predicates and certain constructions expressing possessive predication. The nasal is clearly a clitic in possessive predications. With adjectival predicates, it occurs only when the adjective agrees with the head noun, but not with adjectives that do not agree. Further investigation is required to determine whether the nasals in both contexts are, indeed, the same. In the meantime, both nasals are glossed as N.

Like with verbs, copulas can form a phonological unit with preverbal subject agreement markers, a postverbal ‘final’ vowel and (verbal) particles. The figure below illustrates the order of the affixes and clitics. Refer to §6 for examples of the usage of the copulas.

¹²⁴ Nominal predicates with a present reference are constructed through juxtaposition, without the use of a copula.

¹²⁵ *hárá*: in [S-N2] and in one example in Sabe (1995).

¹²⁶ Sometimes also *yivwã* (Wycliffe Bible Translators n.d.).

¹²⁷ *há*: in [S-N2].

¹²⁸ With possessive predicates sometimes also *hàr* or *hàni*.

¹²⁹ The first TBU is toneless. It copies the tone from the preceding TBU.

¹³⁰ Sources for Gvyvma: Newman 1976, J. Newman 1978, Wycliffe Bible Translators n.d. and own data. Sources for Gwaandama: Hiraki 1986, Sabe 1995, [S-N1, S-N2, S-N3, B-N1 to B-N4] and own data.

Subject agreement	Aspect markers (§ 6.3)	Copula stem				Final vowel	Postverbal particle	Tense marker ¹³¹	Negation particle ¹³²	nasal = <i>ŋ</i> ¹³³
		Copula	Verb extensions							
SBJ-	ASP-	COP	-CAUS	-PLU	-RLT	-FV	=VEN	=NPST	=NEG	=N

Figure 3. The phonological copula

3.3.3 Verb extensions

Verb extensions are derivational suffixes that can alter the argument structure of a verb, i.e. either increasing or decreasing its valence, “(re-)orient action” (Hyman 2007: 149) as well as change “other semantic aspects of the state of affairs” (Güldemann 2018a: 118). They are a common feature in African languages, particularly in such Niger-Congo subgroups such as Atlantic, Gur and Bantu. In contrast, ‘Adamawa’ languages may have fewer verb extensions (cf. Williamson & Blench 2000 and Hyman 2007: 150). Boyd (1989: 206) identifies four common verb extensions in ‘Adamawa-Ubangi’ languages: iterative, intensive, benefactive and causative. However, only the causative extension occurs in Nungvrama. In Nungvrama, altogether, three verb extensions have been identified: causative *-kA ~ -gA*, pluractional *-nA*¹³⁴ and relational *-rĪ*. The first two do not have inherent tone; their tones rather depend on the tone of the following or preceding TBU.¹³⁵ Verb extensions occur not only on verb roots but also on copulas, as mentioned above and demonstrated in the following subchapters.

3.3.3.1 Causative *-kA ~ -gA*

The causative verb extension, also known as factitive, typically increases the valency of a verb, often an intransitive or inherently reflexive one. This means that the verb takes on an additional argument, the ‘causer’ or ‘source’ of the situation, which often occupies the

¹³¹ Only in Gvyvma, cf. §6.2.2.

¹³² Only in Gvyvma, cf. §6.5.

¹³³ Only in Deeləmə and Gwaandama, cf. §7.3.2.1 and §7.3.2.4.

¹³⁴ The capital letter represents a vowel that changes based on the ATR vowel paradigm used in the preceding verb. According to B. Newman (1978: 39), this involves two interacting processes: first, the verb drops its last vowel (*-e* or *-a*), and then the vowel harmony rule applies. Since “the final vowel *e* or *a* on the base form of the verb affect the vowel quality of the suffixes by vowel harmony [...] the vowel harmony rule precedes the rule that drops the final vowel in certain tenses” (B. Newman 1978: 39). However, to be precise, these two processes do not affect each other because the entire verb is either +ATR or -ATR, not just the final vowel. Therefore, the suffix can be aligned with the verb whether or not the final vowel is dropped.

¹³⁵ For a detailed description of tones on verb extensions in Gvyvma, cf. Newman/Newman (1974: 115f.) and B. Newman (1978: 41ff.).

subject position, while the original subject becomes the object (Payne 1997: 176, Hyman 2007: 149).

In Nɔ̀ngvɔ̀rama, the causative is *-kA ~ -gA*. *-kA* is used after vowels and bilabial plosives, while *-gA* follows all other consonants. The causative does not have an inherent tone and instead copies the tone from the following TBU (cf. §2.2).¹³⁶ Any tone changes on the verb root when a causative is added can also likely be explained by tone copying (compare examples (26), (27) and (28) with (29)).

The following examples demonstrate various uses of *-kA ~ -gA*. The causative is rarely attested in the Deelɔ̀mɔ̀ data.

Deelɔ̀mɔ̀

- (25) *kwá-y mà-w-á à-wún-gá=bá*
 owner-Y farm-W-REF 3SG-rise-CAUS=3PL.OBJ
 ‘the owner of the farm relieved them [from work]’

Gvɔ̀vɔ̀ma

- (26) *á-silá á-sil-gá tá-a*
 3SG-split 3SG-split-CAUS wood-A.REF
 ‘it split (past)’ ‘s/he split wood’ (B. Newman 1978: 29)
- (27) *á-pìrè á-pìr-gé di-ka*
 3SG-tear 3SG-tear-CAUS rope-KA.REF
 ‘it tore’ ‘s/he tore the rope’ (B. Newman 1978: 29)
- (28) *á-hàmà á-hám-gá¹³⁷ zwí-y-é*
 3SG-wake.up 3SG-wake.up-CAUS child-Y-REF
 ‘s/he woke up’ ‘s/he woke up the child’ (B. Newman 1978: 29)
- (29) *á-swà má-m-á¹³⁸ á-swà-kà gàn-á*
 3SG-wash water-M-REF 3SG-wash-CAUS clothes-A.REF
 ‘s/he bathed himself/herself’ ‘s/he washed clothes’ (B. Newman 1978: 29)

Gwaandama

- (30) *bà-tswà-kà bà-tswà-kà-r=i*
 3PL-wash-CAUS 3PL-wash-CAUS-RLT=3SG.OBJ
 ‘...they would wash it [the cocoyam] thoroughly’ [B-N1]

¹³⁶ Newman and Newman’s (1974: 115f.) description differs from this. According to them, when the causative is used in a factative clause, there is tone copying from the verb to the extension. This means that the extension has the same tone as the preceding TBU. However, in an imperfective clause with a monosyllabic verb, it always takes a high tone.

¹³⁷ Currently, there is no explanation for the low tone of the subject agreement marker in this context, as all other examples before and afterwards display a high tone.

¹³⁸ This clause seems to be an inherently intransitive clause with *mámá* ‘water’ as a cognate object (cf. §4.4.7).

- (31) *tò* *bə* *hár-gáw* *dí-tá=ò*
 say COMPL be.lose-CAUS.1SG.OBJ rope-TA=DEF
 ‘he [the prisoner] asked: “untie the rope”’ [B-N1]
- (32) *nán-hár-gá* *ná-á=ò*
 PROG.3SG-be.lose-CAUS hand-A=DEF
 ‘she was untying his hands’ [B-N1]
- (33) *á-tsil-gà-ná*
 7-split-CAUS-PLU
 ‘it [the fire] would split it [the grinding stone] into pieces’ [B-N1]

Two phonological assimilations occur with the causative. First, the extension causes a preceding nasal to become velar, thus assimilating to the place of articulation of the consonant of the extension. This is illustrated with the following two verbs. Compare also examples (25) and (28).

Deeləmə

wún ‘to stand up’ → /*wún-gá*/ [*wúnɡá*] ‘to lift, to relieve’

Gvyuma

hàmà ‘to wake up’ → /*hám-gá*/ [*háŋɡá*] ‘to wake so. up’

The second phonological assimilation is only attested in Gvyuma. When the verb extension is followed by other verb extensions, the vowel changes to /I/.

Gvyuma

- (34) *dékìr* *á-síl-gí-n-dír* *bwá* *tá-mà*
 when 3SG-split-CAUS-PLU-RLT skin.8 8-DEM3
 ‘when he finished splitting these skins...’ (B. Newman 1978: 33)
- (35) *bá-swá-kí-r=i* *dì*
 3PL-wash-CAUS-RLT=3SG.OBJ if
 ‘if they washed him with it [water]’ (B. Newman 1978: 32)

3.3.3.2 Pluractional -nA

Paul Newman (1980) coined the term ‘pluractionality’, which can be broadly defined as “characterized by one or another kind of multiplicity” (Gerhard 1984: 12, for a detailed discussion of the term cf. Wood 2007, Bertinetto/Lenci 2012). Pluractional verbs have been described as denoting actions that occur multiple times, are carried out by multiple subjects and into different directions, or are directed towards multiple objects (P. Newman 2012: 185f.).

In Nvngvrama, pluractionality is expressed by the verb extension *-nA*.¹³⁹ This extension includes all the notions described above, except for multiple subjects. Additionally, the verb extension can have a reciprocal meaning (‘each other’). In this case, the clause does not require an object noun phrase. However, to avoid ambiguity, “the reciprocal meaning can be clarified by specifically mentioning the participants either by name or pronoun” (B. Newman 1978: 30), as in example (44).

The extension itself does not have an inherent tone. Its tone depends on the tone of the preceding TBU and is the opposite of that tone (tonal polarisation) (cf. §2.2, cf. Newman/Newman 1974: 116). In Deeləmə and Gvyyvma, the extension is shortened to *-n* when followed by another suffix or lexeme. With the shortened morpheme, the tone attaches to the preceding TBU, causing a contour tone¹⁴⁰ as shown in examples (36), (37) and (47).

Deeləmə

- (36) *ná-kángî-n* *bál-kà*
 1SG-break-PLU stick-KA.REF
 ‘I broke the stick (many times, into many pieces)’¹⁴¹
- (37) *à-fÿ-n* *nǝm-à*
 3SG-cut-PLU meat-W.REF
 ‘s/he cut the meat (many times, into many pieces/slices)’¹⁴²
- (38) *yì-bá* *bá-yáhá-nà*
 person-B 3PL-disperse-PLU
 ‘the people dispersed/scattered’

Gvyyvma

- (39) *bá-yáhá-nà*
 3PL-part-PLU
 ‘they dispersed in many directions’ (B. Newman 1978: 30)

¹³⁹ B. Newman (1978: 30) does not differentiate between the pluractional and the comitative particle *-nA* (see §3.8.2). She describes it as a “verb suffix” that can have distributive, reciprocal and habitual meanings.

¹⁴⁰ Only falling tones are attested in the data.

¹⁴¹ Compare with the following example:

ná-kángí *bál-kà*
 1SG-break stick-KA.REF
 ‘I broke the stick (into two pieces)’

¹⁴² Compare with the following example:

à-fÿ *nǝm-à*
 3SG-cut meat-W.REF
 ‘s/he cut (a piece/slice of) meat’

- (40) *mwá-y-á=ò* *à-zù-né*
 woman-Y-REF=DEF 3SG-go-PLU
 ‘the woman walked around’¹⁴³
- (41) *à-gwèl-né* *nì-á*
 3SG-beg-PLU.FV thing-A
 ‘s/he habitually begs for things’ (i.e. s/he begs for things many times)
 (B. Newman 1978: 30)
- (42) *bá-àr-ná* *kír:á*
 3PL-call-PLU.FV together
 ‘they are calling out all with one voice’ (B. Newman 1978: 30)
- (43) *bá-nv-ná*
 3PL-hear-PLU
 ‘they understood each other’ (B. Newman 1978: 30)
- (44) *kà-nv-ná* *mìr* *ñ* *né*
 1PL.INCL-hear-PLU.FV 1PL.INCL INST 1SG
 ‘you and I understand each other’ (B. Newman 1978: 30)
- (45) *lára-w* *nán-cíngìn* *mí-l-è*
 Elephant-W PROG.3SG-be.ready body-L-REF
- nùngì-w-è* *nán-cíngìn* *mí-l-è*
 Hippo-W-REF PROG.3SG-be.ready body-L-REF
- bà-à-wàr-ná*
 3PL-PROG-pull-PLU
 ‘Elephant was ready, Hippo was ready, they were pulling each other’
 (B. Newman 1978: 30)
- Gwaandama**
- (46) *dù-ní=bà*
 look-PLU=3PL.OBJ
 ‘look at them!’
- (47) *à-tsû-n* *jà-w-à*
 3SG-cut-PLU meat-W-REF
 ‘s/he cut the meat (many times, into many pieces/slices)’

¹⁴³ Compare with the following example:

mwá-y-á=ò *à-zá*
 woman-Y-REF=DEF 3SG-go
 ‘the woman walked’

- (48) *mà-dàhá* *mà-tsù-ná* *wàhà-m-á* *má-bî* *dzi-nù*
 2SG-can 2SG-cut-PLU tree-M.9-REF 9-DEM1 all-9.DEF?
 ‘can you cut all these trees?’ (Hiraki 1986: 105)
- (49) *kà-kwàkì-ná=jī*
 2PL-correct-PLU.FV=1SG.OBJ
 ‘you (all) correct me’ [B-N1]
- (50) *à-ha-n* *yâ*
 3SG-COP.PST-PLU here
 ‘s/he has been here [for the past three weeks]’ (Hiraki 1986: 221), [S-N1]

Verbs ending with /b/ assimilate to the verb extension in the manner of articulation, which means that they become a nasal [m].

Deeləmə

jīb ‘to beat’ → *jīm-nà* ‘to attack’ [WL-D2]

Gvyuma

tīb ‘to gossip’ → *tīm-né* ‘to gossip again and again’¹⁴⁴
 (B. Newman 1978: 44)

Gwaandama

swab ‘to drive away’ → *swàm-ná* ‘to drive/chase away many’ [WL-N1]

The Gvyuma example below illustrates assimilation in a clause. It is worth noting that there is at least one exception that occurs in the data, as shown in the Gwaandama example (52).

Gvyuma

- (51) *dí* *yíràm* *sír-há=ù* *bà-yáhâ-n*
 and now bee-HA=DEF 3PL-disperse-PLU

bà-fwàm-ním=bà

3PL-chase-PLU?=3PL.OBJ

‘and now the bees scatter and chase them [the boy and his dog]’

Gwaandama

- (52) *nán-háb-nà* *gà-á* *yì-b=nà*
 PROG.3SG-catch-PLU good-A.REF person-B=CF
 ‘s/he was catching the goods of the people’ [B-N1]

The pluractional verb extension is similar in both form and meaning to the verb extension -*Vŋ* in Waja. The Waja marker mostly requires plural subjects, but can also occur to refer to the number of objects or to the duration, frequency and intensity of the action denoted by the verb (Kleinewillinghöfer 1991: 194, cf. 1996b: 35). According to Hyman (2007: 161), pluractionality is particularly common in Nigerian and Cameroonian languages.

¹⁴⁴ B. Newman (1978: 44) translates it as ‘gossip habitually’.

3.3.3.3 Relational *-rÍ*

The function of the relational verb extension in Nungurama is idiosyncratic. It “asserts that there is an instrumental, accompaniment, or resultative relation between the verb and some information given elsewhere” (B. Newman 1978: 32). It can refer to an instrument mentioned earlier or more generally to a preceding temporal paragraph, or to a person or object accompanying the subject of the clause. It is also “used in relative clauses to show a relationship between the verb and the head of the noun phrase to which the clause is attached as a modifier” (B. Newman 1978: 33).¹⁴⁵ I have adopted Newman’s term ‘relational’ for lack of a better alternative.

The underlying form of the verb extension is *-rÍ*, which is most frequently used. It appears in all cases where no other suffix is attached to the verb. However, when another suffix follows, it is shortened to *-r* in Deeləmə (examples (55) and (56)) and sometimes in Gwaandama (*-rÍ* and *-r* may be free variants in these cases, compare examples (64) and (65)). In Gvɔvɔma, *-rÍ* only occurs when a consonant, except for an approximant, follows (example (63)). When a vowel follows, the vowel of the verb extension is lost, the extension becoming *-r^H* with a remaining floating high tone. The floating tone attaches to the following TBU if it is a suffix or enclitic that forms a phonological unit with the verb. Conversely, when no suffix or clitic follows the relational suffix, the floating high tone is completely lost. For instance, in examples (59) and (60) the floating tone causes the first TBU of the completive marker and the object pronoun, respectively, to become high. In contrast, in example (61), the TBU following the first relational suffix is low as it is not part of the verb. It is unclear from the available data whether the reduced relational suffix in Deeləmə also carries a floating high tone.

Deeləmə

- (53) *zóból-y-á* *á-yál* *ból-w-à*
 boy-Y.1-REF 3SG-take ball-W-REF
- á-wùb-rí* *zwáyír-y-à*
 3SG-throw-RLT girl-Y-REF
 ‘the boy took the ball [and] he threw it to the girl’
- (54) *ná=á-yí-rí* *yé* *á* *má-m-á-yà*
 PROG=3SG-take-RLT 3SG.OBJ SPAT water-M-REF-PP.inside
 ‘s/he took it out of the water’ [lit. s/he was taking it from inside the water]
- (55) *ná=á-dú-nà* *yá* *í*
 PROG=3SG-see-PLU place.6 REL.6
- à-fà-r-á* *gíngírí-l-à=nà*
 3SG.FUT-find-RLT-FV frog-L-REF=CF
 ‘s/he looked around where s/he could find the frog’

¹⁴⁵ Most of the examples below suggest an itive/andative reading, i.e. a “motion away from the center (usually the speaker)”. However, other examples such as (64) do not fit this notion as the itive and ventive exclude each other semantically.

- (56) *á-swá-r-á* *fìnà- 'à* *zwàyír-y-à*
 3SG-buy-RLT-FV gift-A.REF girl-Y-REF
 ‘[if the boy would have gotten the money] he would buy a gift for the girl’

Gyyoma

- (57) *ná-sé* *gùbá-l* *ná-swí-r* *zí-ká=ò*
 1SG-pick.up-FV stone-L 1SG-throw-RLT snake-KA.REF=DEF
 ‘I take a stone [and] I throw it at the snake’

- (58) *à-zì-r-a=í¹⁴⁶*
 3SG.IMP-go-RLT-FV=3SG.OBJ
 ‘s/he is going away with him/her’ (B. Newman 1978: 33)

- (59) *á-zì-r=[↑]àmà*
 3SG-go-RLT=CPL
 ‘s/he went with it [the rope]’ (B. Newman 1978: 33)

- (60) *gàlì-r=[↑]i*
 wait-RLT=3SG.OBJ
 ‘waited on him/her with it’ (Newman/Newman 1974: 116)

- (61) *dékìr* *mwá* *yá-mà*
 when wife.1 1-DEM3

á-sí-r *sùtá-l-à* *á-zì-r* *má-mà-yà*
 3SG-pick.up-RLT pot-L-REF 3SG-go-RLT water-M-PP.inside
 ‘when this (aforementioned) wife picked up the pot (mentioned in the previous paragraph), she went with it (accompaniment) to the water’
 (B. Newman 1978: 33)

- (62) *há-r=[↑]wá*
 COP.PST-RLT=VEN
 ‘was here with something’ (B. Newman 1978: 29)

- (63) *hà=gá* *nán-dáw-rí=gà*
 COP=NEG PROG.3SG-put-RLT=NEG
 ‘s/he is not responding’

Gwaandama

- (64) *yí=nà* *swìyá-w-á=ò* *rì* *ì-dzí-rí=wá*
 3SG.SUBJ=COM hen-W-REF=DEF if 3SG-go-RLT=VEN
 ‘if he had a hen, he would bring it’ [B-N1]

¹⁴⁶ Note the vowel change of the verbal root: *zà* ‘to go’ becomes *zì-r* (cf. Newman/Newman (1977b: 26)).

- (65) *bá-yí-r=ú* *yà* *wándà*
 3PL-leave-RLT=VEN place.A Wanda

yíká *bá-dzí-r=ú* *nâ=nâ*
 before 3PL-go-RLT=VEN here=CF
 ‘they left Wanda before they came here’ [B-N1]
- (66) *nán-tsí* *dzwĩ-w-à* *nán-dzí-rí*
 PROG.3SG-dance dance-W-REF PROG.3SG-go-RLT

nán-yú *sà-à*
 PROG.3SG-sing song-A
 ‘she was dancing, she was going with it [a hoe], she was singing’ [B-N1]¹⁴⁷

The verb extension has the following three allomorphs. They are attested in Gvɔvɔma (cf. Newman and Newman 1974, B. Newman 1978) and Gwaandama, but not in Deeləmə. It is important to note that the absence of these allomorphs in the Deeləmə data does not necessarily mean that they do not exist. As these allomorphs are phonologically restricted in their occurrence, the underlying form must be *-rÍ*. This is unusual, as allomorphs are usually shorter (or at least not longer) than the underlying morpheme.

Allomorphs of <i>-rÍ</i>	Phonological environment
<i>-d</i> ¹⁴⁸	following a verb that ends with the bilabial nasal /m/ and directly preceding the final vowel <i>-A</i>
<i>-dí</i>	following the verb extension <i>-nA</i> or a verb that ends with a nasal or nasalised vowel
<i>-tí</i>	following a verb that usually ends in /r/, the /r/ is dropped when followed by the verb extension (cf. §2.1.1 on the allophones [r] and [d])

Table 30. Allomorphs of the relational verb extension *-rÍ*

The examples below demonstrate the use of the different allomorphs.

Gvɔvɔma

- (67) *bà* *nà-tàm-d-á=nà*
 what 2SG.IMP-cry-RLT-FV=CF
 ‘what are you crying about?’ (B. Newman 1978: 33)
- (68) *dékir* *á-síl-gí-n-dír* *bwá* *tá-mà*
 when 3SG-split-CAUS-PLU-RLT skin.8 8-DEM3
 ‘when he finished splitting these skins...’ (B. Newman 1978: 33)

¹⁴⁷ The translation of Nɔngvɔrama (Gwaandama) into English in [B-N1] is only an approximation: ‘s/he was dancing on the way with the hoe raised high in the air’.

¹⁴⁸ It is not possible to verify whether *-d* has a floating high tone, as is the case with *-r^H* in Gvɔvɔma, as all examples in the available data have a following vowel that is high in either case.

(69) *swam-dír=àmá*
 chase-RLT=CPL
 ‘have chased’ (Newman/Newman 1974: 116)

(70) *mù-tír-ě*
 follow-RLT-FV
 ‘follow with it’ (B. Newman 1978: 44)

Gwaandama

(71) *bá-ním-d-á* *yáká-há* *Gwààndà=nà*
 Gwà 3PL-receive-RLT-FV corn-HA.REF Gwaanda=CF
 ‘[...] they receive the (aforementioned) corn from a Gwaanda man’ [B-N1]

(72) *nán-múngú-dír* *nà-l-á=ò*
 PROG.3SG-grab-RLT edge¹⁴⁹-L-REF=DEF
 ‘s/he was grabbing the edge’ [B-N1]

(73) *bá-á-tír* *bá* *Lúngvòndá-w-à=nà*
 3PL-call-RLT 3PL.OBJ Lungunda-W-REF=CF
 ‘[...] they call them *Lungundawa*’ [B-N1]

3.4 Modifiers

3.4.1 Adjectives

Adjectives can be classified according to two criteria: semantic and grammatical characteristics. Dryer (2007b: 168) defines the term *semantic adjectives* “as a label for words that are descriptive words that denote what some people call ‘properties’”, for example size and colour. Dixon (2004: 3f.) identifies four basic semantic categories for adjectives: dimension, age, value and colour. If a language has adjectives, even if it is a small and restricted set of adjectives, they are likely to come from these categories. Dixon (2004: 5) extends his list of semantic categories for adjectives by three so-called *peripheral semantic types* for medium to large adjective classes: physical property, human propensity and speed. Larger adjective classes may also include semantic types such as difficulty, quantification and cardinal numerals. Givón (2001a: 53) calls the semantic content of the adjective class “murky”, as it is rather broad and not easily definable. He adds that the “prototype adjectival concepts are abstracted from the direct experience of prototype noun-coded entities”.

Therefore, to define adjectives as a distinct parts-of-speech class, grammatical criteria must be taken into account in addition to semantic ones. Lexemes can be classified as adjectives when they occur in two contexts: “(a) In a statement that something has a certain property” (Dixon 2004: 10), i.e. they appear as “*predicates* in copular clauses” (Givón 2001a: 84) and “(b) As a specification that helps focus on the referent of the head

¹⁴⁹ In [B-N1] also translated as ‘melted pieces of iron’, in [WL-N1] as ‘lips, livers’.

noun in an NP [noun phrase] that relates to a predicate argument“ (Dixon 2004: 10). They are thus “*modifiers in the Noun Phrase*” (Givón 2001a: 84).

In terms of quantity, Nvngvrama has a medium to large semantic class of adjectives. As they are present in both of the grammatical contexts described above, they can clearly be considered a separate lexical category from nouns (and even more so from verbs). Context (a) is described in detail in §7.3.2.1, while context (b) is discussed in §4.4.2.

Adjectival roots in Nvngvrama are mostly disyllabic and, to a lesser extent, monosyllabic. The syllables are generally light and open, i.e. CV, as demonstrated in the table below.

Deeləmə	Gvɣvma	Gwaandama	
<i>hámà</i>	<i>hámà</i>	<i>dzóú</i>	‘good’ [WL-L1, WL-L3]
<i>kwáhà</i>	<i>kwáhà</i>	<i>kwáhá / kwáhà</i>	‘dry’ [WL-L1, WL-N1], (Kleinewillinghöfer 1994/2014)
<i>mwára</i>	<i>mwára</i>	<i>mwára</i>	‘big’ [WL-L1, WL-G2, WL-N1]
<i>fírá</i>	<i>fírá</i>	<i>fírá</i>	‘kind’ [S-G2]
<i>sí</i>	<i>swa / sv</i>	<i>swá</i>	‘new’ [WL-N1], (Kleinewillinghöfer 1994/2014)

Because adjectives agree with their head noun, agreement markers are suffixed onto the adjective, as the following examples show. For more details, cf. §4.4.2.

Deeləmə			
(74)	<i>yí-r</i> man-R.1 ‘a strong man’	<i>sírà-yà</i> strong-1	
Gvɣvma			
(75)	<i>sú-l</i> heart-L.5 ‘a red heart’	<i>fâr-lá</i> red-5	
Gwaandama			
(76)	<i>ní-m-á</i> milk-M.9-REF ‘the milk is sour’	<i>hà</i> COP	<i>jwá-má=ò</i> sour-9=DEF

Ideophones can function as adjectives, but they differ from adjectives in their morphophonological structure and lack of agreement with the head noun. Examples can be found in §3.5.

3.4.2 Adverbs

An adverb class typically has a broader semantic and functional range than other open parts-of-speech classes. According to Givón (2001a: 87), it “is the least homogenous, semantically, morphologically and syntactically”. Adverbs can be expressed differently in different languages through bound grammatical morphemes, lexemes or complex

syntactic constructions. Functionally, adverbs can modify verbs, adjectives, other adverbs and even verb phrases and clauses. The type of constituent an adverb modifies determines its semantic.

Sentence modifiers, for example, commonly express the speaker’s attitude toward the event being spoken of; modifiers of verbs or verb phrases commonly express time, place, direction, manner, etc.; and modifiers of adjectives and adverb commonly express degree (Schachter/Shopen 2007: 20).

Nvngvrama exhibits a wide range of adverbs, which can be divided into three categories: adverbial modifiers, which will be introduced below; adverbial clauses, which can be divided into clauses with adverbial conjunctions/adverbialisers and conditional clauses. These are treated in §3.8.4 and §7.4.4 respectively. Finally, there are adpositional phrases, which consist of prepositions and a complement and give additional information about an adjacent noun phrase. Examples are given in §3.8.3.

Adverbial modifiers, also called adjuncts, have oblique functions, i.e. they appear “whenever they would be semantically appropriate” (Andrews 2007b: 157). In Nvngvrama, they usually follow the verbal predicate and any object that may be required and refer to concepts such as time, place or manner. They include many ideophones, as some of the following examples show (for more details on ideophones, cf. §3.5). For example:

- Deelɔmɔ**
- (77) *zwáyír-y-à* *á-wùb-rí* *yé* ***dímà***
 girl-Y-REF 3SG-throw-RLT 3SG.OBJ **again**
 ‘the girl throws it [the ball] back to him again’
- (78) *ná-fwì* ***yà***
 1SG-sit **there**
 ‘I sat there’
- (79) *á-yá* ***bújàbújà***
 3SG-fall **IDEO**
 ‘s/he fell completely / s/he fell flat on the ground’
- Gvɔvma**
- (80) *ná-súni* ***yà*** ***jàlá-ká***
 1SG-farm **place** **day-KA.REF**
 ‘I farmed in the afternoon’
- (81) *ba-swa* ***n*** ***deke***
 3PL-live **like** **this?**
 ‘they live like this’ (J. Newman 1978: 94)
- (82) *sìngilá-w* *à-zá* ***bárbàrà***
 sheep-w.3 3-walk **IDEO**
 ‘a sheep walks very fast’

- Gwaandama**
- (83) *ná-mwáb-á* *tswá-w-á* *yálú-há* *dzà-há=ù*
 1SG-build-FV house-W-REF day-HA.4.REF all-4=DEF
 ‘I build houses every day’
- (84) *nà-bà-dzi* *sínábú*
 PROG-3PL-go far.away
 ‘they were going far away’ [B-N1]
- (85) *Jàgáli* *wín* *háv*¹⁵⁰ *kìrkìrkìr*
 Jagali rise stand IDEO
 ‘Jagali rose to stand helter-skelter’ [B-N1]
- (86) *bà-wú* *tsim*
 3PL-throw down
 ‘they threw (him) down’ [B-N4]

3.5 Ideophones

Dingemanse (2012: 654) describes ideophones as

marked words depictive of sensory imagery found in many of the world’s languages. They are noted for their special sound patterns, distinct grammatical properties, and sensory meanings.

One of these ‘special sound patterns’, i.e. phonological patterns that occur mostly or only in ideophones and not in any other parts-of-speech class, is reduplication, which is particularly common in ideophones in African languages (Dingemanse 2012: 656, Lionnet/Hyman 2018: 650); others are geminates and long vowels (Watters 2000: 196). Semantically, they depict “perceptual knowledge that derives from sensory perception of the environment and the body” (Dingemanse 2012: 654).

In comparison to other parts-of-speech classes, ideophones in Nungvrama also typically show such ‘special’ morphophonological properties; especially full reduplication, but also vowel lengthening and gemination (cf. §2.1.3.1 and §2.1.3.2). They cover meanings such as size, colour and taste. The following list is a small selection of the ideophones found in the data.

Deeləmə

<i>fikàfikà</i>	‘green’
<i>zúbàzúbà</i>	‘dirty (from eating, spots of food on clothes/table/floor)’
<i>sikàsikà</i>	‘very small, tiny’
<i>jà:wà</i>	‘sharp (e.g. blade)’
<i>yùl.á</i>	‘warm’
<i>kárkár</i>	‘right, correct’

¹⁵⁰ In [WL-N1] *hav* or *hàv*. In the event that both vowels exhibit the same tone, the appropriate notation would be *hàw* in this thesis.

Gvyvma	
<i>sikàsikà</i>	‘green’
<i>bùlmábùlmá</i>	‘very dirty’
<i>pítìnpítìn</i>	‘very small, tiny’
<i>bùbù</i>	‘soft’ (Newman/Newman 1977b: 41)
<i>cùcù</i>	‘very’ (Newman/Newman 1977b: 41)
<i>wòrwòr</i>	‘dizzy’ (Newman/Newman 1977b: 45)
<i>swé:</i>	‘poor taste’
<i>ním:á</i>	‘close to sth.’

Gwaandama	
<i>tsíkàtsikà</i>	‘green’
<i>yíréyíré</i>	‘not clear, misty’
<i>tàmtàm</i>	‘thick (fat)’ [WL-N1]
<i>cwàbcwàb, ywùlywùl</i>	‘warm’ [WL-N1]
<i>bùlgàbùlgà</i>	‘shiny’ [B-N1]

Ideophones in Nungurama can function as adverbs or adjectives. Examples of ideophones as adverbs have been shown in §3.4.2. Ideophones as adjectives are invariable and therefore differ from ‘real’ adjectives, because they do not show agreement with the head noun (cf. §4.4.2), e.g.

Deeləmə

- (87) *ní-m* *kál:à*
 milk-M small
 ‘small amount of milk’

Gvyvma

- (88) *dí-ká* *sikàsikà*
 shirt-KA.REF green
 ‘a green shirt’

Gwaandama

- (89) *dí-ká* *hà* *tsíkàtsikà*
 shirt-KA.REF COP green
 ‘the shirt is green’

3.6 Personal pronouns and other proforms

3.6.1 General remarks

Schachter and Shopen (2007: 24ff.) distinguish between different types of pronouns: personal, reflexive, reciprocal, demonstrative, indefinite and relative. However, Bhat (2004: 4) argues that there is not “even a single characteristic that is shared by all of them”. They differ especially in terms of their function. Therefore, it is important to group them into two sets: Pronouns which include subject, object and possessive pronouns, and proforms, which include relative, demonstrative and interrogative proforms.

Personal pronouns “refer to the speaker (e.g. *I, me*), the person spoken to (*you*), and other persons and things whose referents are presumed to be clear from the context (*he, him, she, her, it, etc.*)” (Schachter/Shopen 2007: 24). They are anaphoric elements that refer to an antecedent in the same discourse, which is a proper noun or a noun phrase. Pronouns agree with the antecedent, at least for the categories of person and number (Kroeger 2015: 138).

Nungvrama pronouns agree with their antecedents in number, i.e. singular and plural, and in person, i.e. first, second and third person. In the first person plural, there is a distinction between inclusive and exclusive based on tone. 1PL.INCL includes the person(s) spoken to, while 1PL.EXCL excludes them (Bhat 2004: 91f.). Gender is not distinguished in Nungvrama pronouns, so the gender (or rather the deriflection class, cf. §4.1) of the antecedent is not a distinctive category within pronouns. Nungvrama distinguishes between subject, object and possessive pronouns, which are discussed in §3.6.2, §3.6.3 and §3.6.4, respectively. Despite their similar form, they differ especially in tone and vowel quality and have varying syntactic positions depending on their antecedents. Logophoric, reflexive and reciprocal pronouns are not present in Nungvrama. However, reflexivity constructions use possessive pronouns.

Proforms have various functions, which include

- (i) identifying the participants of an event by locating them with reference to the spatio-temporal location of the speech act participants [...], (ii) referring back (or forward) to other expressions that occur in the utterance or in previous utterances, or (iii) indicating the scope of a question, negation, or exclamation (Bhat 2004: 6f.).

Proforms can also have different structures, often consisting of two elements: “a general term that denotes the scope of those proforms and a pronominal element that indicates the purpose for which they are used” (Bhat 2004: 153).

In Nungvrama, such proforms are demonstratives, interrogatives and relative clause markers that agree with the NF class of an head noun. The proforms will be introduced in the sections §3.6.5, §3.6.6 and §3.6.7 following the pronouns. Their agreement behaviour is discussed in §4.4.7, §4.4.8 and §4.4.9, respectively.

3.6.2 Subject pronouns

The table below summarises the subject pronouns in Nungvrama.

	Deeləmə	Guyuma	Gwaandama
1SG.SBJ	<i>ní</i>	<i>níné</i>	<i>ní</i>
2SG.SBJ	<i>mò</i>	<i>mìná</i>	<i>mù</i>
3SG.SBJ	<i>yè / yì</i>	<i>yìná</i>	<i>yínà</i>
1PL.INCL.SBJ	<i>mìr</i> ¹⁵¹	<i>mìrná</i> ¹⁵²	<i>mur</i>
1PL.EXCL.SBJ	<i>jím</i>	<i>jìrné</i>	<i>ǰí</i>
2PL.SBJ	<i>jì</i>	<i>jìné</i>	<i>ǰì</i>
3PL.SBJ	<i>bò / bò</i> ¹⁵³	<i>bìná</i>	<i>bǒ / bǔ</i>

Table 31. Subject pronouns¹⁵⁴

Subject pronouns are optional in verbal clauses and are usually used emphatically, as shown by the brackets and the English translations in the following examples. However, agreement with the verbal predicate is mandatory (cf. §4.4.10).

Deeləmə

- (90) (*bò*) *bá-zà* *fò*
 3PL.SBJ 3PL-go home
 ‘(it’s them) they go home’

Guyuma

- (91) (*yìná*) *á-mwòm* *swá-w-á=ò*
 3SG.SBJ 3SG-build house-W-REF=DEF
 ‘(it’s him/her) s/he built the house’

Gwaandama

- (92) (*ní*) *ná-dú* *gá* *yà-á* *dáy=gá*
 1SG.SBJ 1SG-see NEG place-A ?¹⁵⁵=NEG
 ‘(as for me) I have not personally seen the place’ [B-N1]

In Gwaandama, there is one example suggesting that the presence of the subject pronoun can be used to avoid ambiguity.

Gwaandama

- (93) *Frama* *thú* *bá* *yà* *dwà=ámà* *gíhí-y-á=ò*
 Frama say that 3SG.SBJ see=CPL woman-Y-REF=DEF
 ‘Frama said that she (Frama) has seen the woman’
- (94) *Frama* *thú* *bá* *dwà=ámà* *gíhí-y-á=ò*
 Frama say that see=CPL woman-Y-REF=DEF
 ‘Frama said that she (not Frama) saw the woman’

¹⁵¹ *mìrá* in Kleinwillinghöfer (2014a).

¹⁵² The first person plural inclusive subject pronoun deviates slightly in Newman (1976: 65) as it is denoted as *mína*. All other pronouns of this paradigm are consistent with Newman’s depiction, but are not marked with tones.

¹⁵³ It is unclear why there are two forms in Deeləmə and Gwaandama.

¹⁵⁴ Sources for Gwaandama: Kleinwillinghöfer 2014a and own data.

¹⁵⁵ Translated as ‘even’ in [B-N1]. It may be (related to) the interrogative tag *déy* (cf. §3.8.7).

3.6.3 Object pronouns

Nvngvrama has two sets of object pronouns: an independent and invariable set and a cliticising set. Both sets follow the verb, but the cliticising object pronouns are phonologically dependent on the verb. This means that they adapt to the ATR vowels of the verbal predicate. They do not include 1PL and 2PL object pronouns and are subject to change depending on the aspect marking of the predicate (cf. §6.3.3 for the imperfective and §6.3.4 for the future). The cliticisation or incorporation (sometimes even merging) of certain object pronouns onto the verb can be explained by a process known as ‘verbal attraction’: “Verbal attraction is a complex process by which linguistic units being part of or forming arguments of the predicate are attracted to the verb, undergoing Cliticization and/or Affixation” (Heine/Reh 1984: 50, cf. Lessau 1994: 909f.). Verbal attraction is closely linked to phonological attrition in the cases of 2SG.OBJ, 3SG.OBJ and 3.PL.OBJ. Phonological attrition is a process in which an independent morpheme becomes a clitic and may even change further to an affix, resulting in a loss of phonological mass. However, there is no attrition with 1SG.OBJ, as the independent and the dependent object pronouns differ too much from each other to suggest that one is derived from the other.

The following table summarises the two sets of object pronouns in each variety. The left column in each variety shows the independent pronouns, while the right columns show the dependent or cliticising pronouns. The interlinearisation of the object pronouns is always as depicted in the first row of the table, regardless of whether they are independent, dependent or occur in different aspectual constructions.

	Deeləmə		Gvyvma		Gwaandama	
	indep.	dep.	indep.	dep.	indep.	dep.
1SG.OBJ	<i>ɲi</i>	= <i>U</i> ¹⁵⁶	<i>ɲé</i>	= <i>O</i>	<i>ɲùú</i>	= <i>A(w)</i>
2SG.OBJ	<i>mó</i>	= <i>Vm</i> ¹⁵⁷	<i>mìná</i>	= <i>Ṽm</i>	<i>mù / m̀ṽ</i> ¹⁵⁸	= <i>Ṽm</i>
3SG.OBJ	<i>yé / yá</i>	= <i>I</i>	<i>(i)yà</i>	= <i>I</i>	<i>yà</i>	= <i>I</i>
1PL.INCL.OBJ	<i>mír(à)</i>		<i>mìr</i>		<i>mìr</i>	
1PL.EXCL.OBJ	<i>ɲim</i>		<i>ɲír</i>		<i>ɲí</i>	
2PL.OBJ	<i>ɲé / ɲí</i>		<i>ɲìn</i> ¹⁵⁹		<i>ɲì</i>	
3PL.OBJ	<i>bó / bá</i>	= <i>b(A)</i>	<i>bu / b̃</i>	= <i>bA</i>	<i>bù / bà</i>	= <i>b(A)</i> ¹⁶⁰

Table 32. Object pronouns
(indep. = independent, dep. = dependent)¹⁶¹

¹⁵⁶ The vowel of the object pronoun clitic is always a back vowel, ranging from [o] to [u] or [ɔ] to [ɔ], depending on the ATR quality of the verb stem to which it is attached.

¹⁵⁷ No inherent tone.

¹⁵⁸ Both forms, i.e. with [+ATR] and [-ATR] vowels, occur in [B-N1] and Sabe (1995). Similarly, the two forms occurring with other object pronouns and with other varieties occur in the different sources.

¹⁵⁹ Newman (1976: 38) contains one instance where the pronoun is *ɲe*.

¹⁶⁰ No inherent tone. It probably copies the tone of the following TBU.

¹⁶¹ Sources for Gvyvma: B. Newman 1978: 31, J. Newman 1978: 98 and own data. Sources for Gwaandama: Hiraki 1986, Sabe 2014, [S-N1, S-N2, S-N3, B-N1 to B-N4] and own data.

Object pronouns in Nvngvrama, whether independent or dependent, exclusively refer to animates, i.e. people and animals.¹⁶² Inanimate objects must either be explicitly mentioned as a noun or are inferred from the context. For example, in Gwaandama, while the object pronoun represents the animate noun in example (87), the inanimate noun has no representation in example (96).

Gwaandama

- (95) *nə-dwi=i* *dwá=àmà*¹⁶³
 1SG-see=3SG.OBJ see=CPL
 ‘I have seen it [the dog]’ [S-N3]

- (96) *nə-dwá=àmà*
 1SG-see=CPL
 ‘I have seen it [the knife]’ [S-N3]

The data of Gwaandama shows a few exceptions to the aforementioned rule, particularly in NF classes KA (singular), HA, A (both plural) and M (when used as a plural, not as a transnumeral). In these cases, the antecedents are grammatically inanimate but are treated as animate. The following examples illustrate these exceptions in Gwaandama. No such exceptions were found in the Deeləmə and Gv̄v̄ma data.

Gwaandama

- (97) *nə-dwi=i* *dwá=àmà*
 1SG-see=3SG.OBJ see=CPL
 ‘I have seen it [the tree]’ (referring to e.g. tree or leg in NF class KA) [S-N3]

- (98) *nə-dv̄=b* *dwá=àmà*
 1SG-see=3PL.OBJ see=CPL
 ‘I have seen them’ (referring to e.g. trees in NF class M or fields in NF class A) [S-N3]

The conditions for selecting between an independent or dependent pronoun to represent an object are currently unclear. It is assumed that the decision to use a pronoun from either set is left to the speaker. For instance, a Deeləmə speaker presented the following two clauses as equal alternatives without indicating any changes in their meaning.

Deeləmə

- (99) *nə-hintír* *yá*
 1SG-teach 3SG.OBJ
 ‘I taught him/her’

- (100) *nə-hintír=i*
 1SG-teach=3SG.OBJ
 ‘I taught him/her’

¹⁶² Cf. Kleinewillinghöfer (2024: 18), who reports a similar phenomenon for the Samba-Duru noun class languages which are part of ‘Adamawa’ or ‘Benue-Volta’.

¹⁶³ For a description of this two-verb construction, cf. §6.4.3.

Object pronouns are selected to represent the roles of theme/recipient and benefactive. When both roles are present in the same clause and represented by object pronouns, there are two alternative constructions available to the speaker. The first involves cliticising a singular object pronoun to the verb, followed by an independent object pronoun. The Gyyuma examples (101) and (102) illustrate this, with the latter showing ambiguity since the order of benefactive and direct object is not fixed. Second, when both pronouns are invariable, the first one must be a plural pronoun and the second one must be 3SG (see example (103), cf. B. Newman 1978: 31).

Gyyuma

(101) *á-háb=i* *yà*
 3SG-catch=3SG.OBJ 3SG.OBJ
 ‘s/he caught him/her for him/her’ (B. Newman 1978: 31)

(102) *á-háb=i* *bá*
 3SG-catch=3SG.OBJ 3PL.OBJ
 ‘s/he caught him/her for them’ / ‘s/he caught them for him/her’ (B. Newman 1978: 31)

(103) *á-háb* *bĩ* *yà*
 3SG-catch 3PL.OBJ 3SG.OBJ
 ‘s/he caught them for him/her’ (B. Newman 1978: 31)

The subsequent sections will describe object pronouns for each variety individually, as there are certain peculiarities that are unique in the varieties.

Deeləmə

The functional load of independent object pronouns is highest in 1PL and 2PL, but in all other cases, they can be used interchangeably with the object pronoun clitics. For example, compare clauses (104) and (598), (105) and (600) (in §6.3.4) as well as (108) and (110). There is free variation in vowel quality in both 3SG and 3PL. The second vowel of the 1PL.INCL is dropped when another word follows, as shown in example (106).

(104) *á-swá* *ní* *fwá-w-à*
 3SG.FUT-buy.FV 1SG.OBJ house-W-REF
 ‘s/he will buy me a house’

(105) *à-zwá* *mò* *zwà-kà*
 3SG.FUT-ask.FV 2SG.OBJ question-KA.REF
 ‘s/he will ask you a question’

(106) *á-zwù* *mír* *zwà-kà*
 3SG-ask 1PL.INCL.OBJ question-KA.REF
 ‘s/he asked us a question’

- (107) *nà-dwá* *je*
 1SG.FUT-see.FV 2PL.OBJ
 ‘I will see you’
- (108) *á-zwù* *bó* *zwà-kà*
 3SG-ask 3SG.OBJ question-KA.REF
 ‘s/he asked them a question’

Deeləmə exhibits certain phonological changes when using object pronoun clitics.

With 1SG.OBJ, an approximant is inserted between the verb and the object pronoun, when the verb ends in a light syllable.

- /zwà=Ú/* [*zwàwú*] ‘ask/asked me’
/swà=Ú/ [*swàwó*] ‘buy/bought me’

The 2SG.OBJ contains an underspecified vowel without an inherent tone. This vowel merges with (or changes) the preceding vowel of the verb in a manner that is not yet understood (cf. §2.1.3.3 on hiatus resolution).

- /zwà=Vm/* [*zwùm*] ‘ask/asked you (sg)’
/níngá=Vm/ [*níngím*] ‘give/gave you (sg)’
/dwá=Vm/ [*dwám*] ‘see/saw you (sg)’

The 3SG.OBJ clitic attaches to a verb with a final consonant or replaces a preceding vowel.

- /híntír=Í/* [*híntírí*] ‘teach/taught him/her’
/níngá=Í/ [*níngí*] ‘give/gave him/her’
/zwà=Í/ [*zwí*] ‘ask/asked him/her’

The vowel of 3PL.OBJ is dropped in non-pausa position. Compare the following two examples.

- (109) *nà-dú=bá*
 1SG-see=3PL.OBJ
 ‘I saw them’
- (110) *á-zwà=b* *zwà-kà*
 3SG-ask=3SG.OBJ question-KA.REF
 ‘s/he asked them a question’

Guyuma

The following are examples of clauses in Guyuma that contain independent object pronouns.

- (111) *á-háb* *bì* *yà*
 3SG-catch 3PL.OBJ 2SG.OBJ
 ‘s/he caught them for him/her’ (B. Newman 1978: 31)

- (112) *á-jwà* *jír* *fwà-wà*
 3SG-buy 1PL.EXCL.OBJ house-w
 ‘s/he bought us (excl.) a house’
- (113) *à-jwá* *jír* *fwà-wá*
 3SG.IMP-buy.FV 1PL.EXCL.OBJ house-w.REF
 ‘s/he is buying us a house’
- (114) *Ø-zwé* *jír* *zwè-ké*
 3SG.FUT-ask.FV 1PL.EXCL.OBJ question-KA.REF
 ‘s/he will ask us a question’

As in Deeləmə, object pronoun clitics undergo phonological changes.

1SG.OBJ has several allomorphs, all of which are represented by =*Ò* as they share the characteristic of being back vowels. The exact shape of the pronoun depends on the number of syllables in the verb and whether it ends in a light or heavy syllable. So far, three rules have been identified:

Rule 1: For verbs consisting of one light syllable, the vowels merge and become a back vowel, e.g. /a/ and /=*Ò*/ become [ɔ̃], /e/ and /=*Ò*/ become [ò].

<i>/jwà=<i>Ò</i>/</i>	<i>[jwɔ̃]</i>	‘bought me’
<i>/zwè=<i>Ò</i>/</i>	<i>[zwò]</i>	‘asked me’

Rule 2: In verbs with a heavy syllable, the object pronoun is [aw] or [ew].¹⁶⁴

<i>/sútír=<i>Ò</i>/</i>	<i>[sútí^híráw]</i>	‘showed me’
<i>/kutər=<i>Ò</i>/</i>	<i>[kutərew]</i>	‘returned to me’ (Newman 1976: 54)
<i>/kwáb=<i>Ò</i>/</i>	<i>[kwábáw]</i>	‘drew/fetched (sth., e.g. water) for me’ (B. Newman 1978: 31)

Rule 3: In disyllabic verbs with an open second syllable, the object pronoun is either [ù]/[ṽ] or [à]/[è]. An approximant is inserted to avoid a hiatus.

<i>nìngà=<i>Ò</i></i>	<i>[nìngáwṽ]</i> / <i>[nìngawa]</i>	‘gave me’ (J. Newman 1978: 101)
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2SG.OBJ has an underspecified vowel that merges with the preceding vowel, often resulting in a high and/or back vowel. The data does not provide any examples of a verb with a heavy syllable and 2SG.OBJ.

<i>/jwà=<i>Ì</i>m/</i>	<i>[jwṽm]</i>	‘bought you’
<i>/zwè=<i>Ì</i>m/</i>	<i>[zwùm]</i>	‘asked you’
<i>/nìngà=<i>Ì</i>m/</i>	<i>[nìngìm]</i> ¹⁶⁵	‘gave you’

¹⁶⁴ The suffix often surfaces as a high tone, while the underlying object pronoun clitic has low tone.

¹⁶⁵ But *ningga-m* (i.e. *[nìngàm]*) in Newman (e.g. 1976: 56, 1978: 101).

3SG.OBJ is cliticised when a verb ends with a heavy syllable. However, it replaces the vowel of the verb in a light syllable.

/tam=ǎ/	[tʰamǎ]	‘sent him/her’ (Newman 1976: 49)
/háǎ=ǎ/	[háǎǎ]	‘caught him/her’ (B. Newman 1978: 31)
/ǰwà=ǎ/	[ǰwǎ] ¹⁶⁶	‘bought him/her’
/zwè=ǎ/	[zwǎ] ¹⁶⁷	‘asked him/her’

The vowel of 3PL.OBJ depends on the ATR value of the preceding verb and is subject to vowel weakening when followed by another lexeme.

/zwǎ=bǎ zwǎkǎ/	[zʷǎbǎ zʷǎkǎ]	‘asked them a question’
/dwǎ=bǎ/	[dʷǎbǎ]	‘saw them’
/nǎǰǎ=bǎ léǰǎlǎrǎlǎ/	[nǎǰǎbǎ léǰǎlǎrǎlǎ]	‘gave them a book’
	→ [nǎǰǎbǎ]	

Gwaandama

The following examples illustrate independent object pronouns in Gwaandama.

- (115) *àr=á* *yùú*
 call=3SG.OBJ 1SG.OBJ
 ‘call him/her for me’ (Hiraki 1986: 69), [S-N1]
- (116) *a-tu* *mir* *ni-a*
 3SG-say 1PL.INCL.OBJ thing-A
 ‘s/he said something to us’ (Sabe 2014: 47)
- (117) *a-tu-a* *mir* *ni-a*
 3SG.IMP-say-FV 1PL.INCL.OBJ thing-A
 ‘s/he is saying something to us’ (Sabe 2014: 46)
- (118) *bǎ-wàr* *bà*
 3PL-marry 3PL.OBJ
 ‘they gave them in marriage’ (lit. they married them’) [B-N1]

As observed in Deelǎmǎ and Gvǎyǎmǎ, the object pronoun clitics in Gwaandama also undergo phonological changes.

1SG.OBJ inserts an approximant when the verb ends with a light syllable and often adds an approximant at the end as well.

/tǎ=ǎ/	[tǎwǎ] / [tǎwǎw]	‘said to me / told me’ [S-N1, B-N4]
/ná=ǎ/	[náwǎ]	‘gave me’ [S-N1]
/cǎr=ǎ/	[cǎrǎw]	‘greeted me’ [B-N4]
/dzǎr=ǎ/	[dzǎrǎw]	‘did/make me’ [B-N4]

¹⁶⁶ But *nywa-i* (i.e. *ǰwai*) in Newman (1976: 43).

¹⁶⁷ But *zwe-ing* (i.e. *zwǎ*) in Newman (1976: 60).

Just like in the other varieties, 2SG.OBJ has an underspecified vowel. When the verb has a light syllable, an approximant is inserted or the two vowels merge.

/tʰv=Ṽm/	[tʰwà̃m]	‘said to you / told you’
/dzwə̀=Ṽm/	[d̪ʷù̃m]	‘asked you’
/mwáb=Ṽm/	[mʷábì̃m]	‘built you’
/dáv=Ṽm/	[dávám]	‘kept (for) you’

3SG.OBJ merges with the vowel of the preceding verb or is cliticised to verbs with a heavy syllable and to some with a light syllable.

/ná=Ṽ/	[ní]	‘gave him/her’
/tʰv=Ṽ/	[tʰwì]	‘said to him/her / told him/her’
/àr=Ṽ/	[àrì]	‘called him/her’

3PL.OBJ has no inherent tone. The tone appears to be copied from the following TBU (compare example (119)). It can be difficult to distinguish between independent and dependent pronouns when using 3PL.OBJ, as their forms are very similar. However, in certain contexts, it is possible to clearly identify a dependent pronoun from an independent pronoun. These contexts include:

Context 1: A pronoun with a [+ATR] vowel must be a dependent pronoun, since the independent pronoun has a [-ATR] vowel.

- (119) *bá-dìb=bá*
 3PL-kill=3PL.OBJ
 ‘they killed them’ [B-N1]

Context 2: The vowel of the object pronoun clitic is omitted when a lexeme follows.

- (120) *bá-bà=b* *Gàrúwè̃nì*
 3PL-throw=3PL.OBJ Garuwunì
 ‘they threw them at Garuwunyi (a place)’ [B-N1]

Context 3: A negative clitic follows the object pronoun clitic.

- (121) *dzv̀=wá=bá=gá*
 go=VEN=3PL.OBJ=NEG
 ‘[so they decided that] it (the place) wouldn’t fit them’ (lit. it does not go back to them) [B-N1]

3.6.4 Possessive pronouns

The following table displays the possessive pronouns in the three varieties.¹⁶⁸ Note the similarity of their form to the independent object pronouns.

¹⁶⁸ In Nvngurama, specifically in Deeləmə and Gṽṽma, some possessive pronouns bear a striking resemblances to those in Tula. These are in particular 2SG -mɔ, 1PL.INCL -jire (compare with the exclusive form in Gṽṽma) and 2PL -jin (Hall 1954/1956: 114).

	Deeləmə	Guyuma	Gwaandama
1SG.POSS	<i>nì</i>	<i>ní</i>	<i>nú</i>
2SG.POSS	<i>mò</i>	<i>mì</i>	<i>mù</i>
3SG.POSS	<i>yè / yè¹⁶⁹</i>	<i>yì</i>	<i>yù</i>
1PL.INCL.POSS	<i>mírà</i>	<i>mìr</i>	<i>mùrù</i>
1PL.EXCL.POSS	<i>jím</i>	<i>jír</i>	<i>ǰǐ</i>
2PL.POSS	<i>jè</i>	<i>jìn</i>	<i>ǰǐ</i>
3PL.POSS	<i>bò</i>	<i>bìn</i>	<i>bù</i>

Table 33. Possessive pronouns¹⁷⁰

Agreement markers in Deeləmə and Gwaandama are prefixed, while those in Guyuma are suffixed. This is demonstrated in the following examples (for more examples and details on agreement marking, cf. §4.4.6).

- Deeləmə**
- (122) *mìyá* *wá-nì*
 goat.3 3-1SG.POSS
 ‘my goat’

- Guyuma**
- (123) *ná-ká* *yì-ké*
 hand-KA.7.REF 3SG.POSS-7
 ‘his/her hand’

- Gwaandama**
- (124) *nì-á* *á-nú*
 thing-A.6 6-1SG.POSS
 ‘my thing(s)’

Possessive pronouns are also used in reflexivity constructions, as shown in §7.2.2.

3.6.5 Demonstrative proforms

Demonstrative proforms are “deictic expressions [... that] indicate the relative distance of a referent in the speech situation vis-à-vis the deictic center“ (Diessel 2013). These deictic systems can either be “distance-oriented” or “person-oriented”, i.e. relative to the speaker or relative to the first, second or third person (Bhat 2004: 14, 140). In addition, Dryer (2007b: 162) notes that demonstrative proforms “can be used to draw the hearer’s attention to something in the perceptual space of the speaker and hearer“ (cf. Bhat 2004: 177). They are universal and can always be divided into two categories: (1) those that can stand on their own as a noun phrase, and (2) those that function as an attribute or modifier of a noun, i.e. in an adjectival manner (Dryer 2007b: 162).

¹⁶⁹ The pronunciation of the vowel ranges from [ɛ] to [e], even with a single speaker.

¹⁷⁰ Sources for Guyuma: B. Newman 1976, 1978, J. Newman 1978 and own data. Sources for Gwaandama: Jungraithmayr 1968/1969: 176, Hiraki 1986: 128ff., Sabe 2014: 47, S-N4 and own data.

The following table summarises the demonstrative proforms found in the three varieties. DEM3 is not attested in the Deeləmə data with two exceptions (see below). For examples with agreement markers, cf. §4.4.7.

		Deeləmə	Gvyvma	Gwaandama
DEM1	proximity	<i>bá</i>	<i>à</i>	<i>bì</i>
DEM2	distance	<i>wà</i>	<i>wà</i>	<i>kwǎ̃</i>
DEM3		<i>(m?)</i>	<i>mà</i> ¹⁷¹	<i>mà</i>

Table 34. Demonstrative proforms¹⁷²

All three varieties have one demonstrative proform indicating proximity ('this, these'). However, the form in Gvyvma differs from the ones in Deeləmə and Gwaandama. With the demonstratives denoting distance ('that, those'), *kwǎ̃* in Gwaandama, which is exclusively found in [B-N1] to [B-N4], is particularly interesting. The demonstrative proform is noteworthy not only because it has suffix agreement markers, unlike all other demonstrative proforms with agreement prefixes, but also because it has a rising contour tone which is unique in Nvngvrama (cf. §2.2). The demonstrative proform *mà* in both Gvyvma and Gwaandama shortens to *m* when followed by the clause final marker =*nà* (§3.8.9). Two examples suggest that this also happens in Deeləmə (examples (283) in §4.2.1 and (549) in §6.3.2). However, no full form is attested in the data.

The semantic distinction of the demonstrative proforms denoting distance is not yet clear. The proforms are generally translated as 'that' or 'those', sometimes (but not consistently) with an additional notion such as 'far away but still visible' for *-wà* in Deeləmə or 'previously mentioned, out of sight' for *-mà* in Gvyvma. It is currently unknown whether these distinctions also apply to Gwaandama, as the demonstrative proforms are not translated with any additional information in the data.

In all three varieties, demonstratives can also be used to convey the notion of definiteness. However, in Gvyvma and Gwaandama, the definite marker is more commonly used (cf. §3.8.5).

The following three examples give an impression of how demonstrative forms behave in a noun phrase. More examples can be found in the chapter on agreement, cf. §4.4.7.

Deeləmə

- (125) *yàpíl* *wí-wà*
sheep.3 3-DEM2
'that sheep'

¹⁷¹ In some cases, translated as 'this', e.g. in Newman/Newman (1977b: 71). In addition, it sometimes does not agree with the head noun.

¹⁷² There are only a few examples of demonstrative proforms in the published sources on Gvyvma. Exceptions, with hardly more than one instance each, are Newman/Newman (1977b: 71), B. Newman (1978: 33) and [WL-G2]. Sources for Gwaandama: Hiraki 1986: 122, 133, [WL-N1, B-N1, B-N, S-N4]. In Kleinewillinghöfer (1994/2014), *iyá* and *iyú* are given for 'this' and 'that' in Gwaandama respectively.

- Gvyvma**
 (126) *ná-ká* *ík-à*
 hand-KA.7.REF 7-DEM1
 ‘this hand’

- Gwaandama**
 (127) *gíhí-y-á* *yí-bì* *hà* *síné-yá*
 woman-Y.1-REF 1-DEM1 COP long-1
 ‘this woman is tall’ [S-N3]

3.6.6 Interrogative proforms

Interrogative words can belong to different parts-of-speech classes, and not all of them are proforms (Schachter/Shopen 2007: 33). In Nvngvrama, interrogative proforms and interrogative particles can be distinguished. The latter are described in §3.8.6.4 and §7.2.4.2. Interrogative proforms agree with their head noun and stand in place of the modifier they inquire about.

The following table provides an overview of interrogative proforms. It should be noted that in Gvyvma, the interrogative word for ‘whose?’ may be a particle, but there is insufficient data to confirm this definitely.

	Deeləmə	Gvyvma	Gwaandama
‘which?’	<i>yà</i>	<i>yà</i>	<i>yì</i> ¹⁷³
‘how many/much?’	<i>nà-X-bánà</i>	<i>nà-X-bà</i>	<i>nà-X-bì</i>
‘whose?’	<i>wà</i>	<i>wada</i>	<i>wì</i>

Table 35. Interrogative proforms
 (X = agreement marker)

The following examples give an impression of how interrogative proforms are used in a clause. For more details and examples, cf. §4.4.8.

- Deeləmə**
 (128) *zwá-y* *yá-yà*
 child-Y.1 1-which
 ‘which child?’

- Gvyvma**
 (129) *bíl-á=ò* *nà-á-bà*
 money-A.6.REF=DEF NUM-6-how.much
 ‘how much money?’

- Gwaandama**
 (130) *yíl-ká* *ká-yì*
 road-KA.7.REF 7-which
 ‘which road?’

¹⁷³ The examples from Gwaandama exhibit varying tones, making it difficult to discern the underlying tone. The low tone is the most frequently used.

3.6.7 Relative clause marker

The relative clause marker introduces a relative clause. In Nvngvrama, it agrees with the head noun through an agreement marker. In Deeləmə and Gwaandama, the relative clause markers are most likely simply vowels with which an agreement marker has merged (with two exceptions in Gwaandama). However, in Gvyvma, the situation is more complex. I propose that Gvyvma also has an underlying vowel, possibly *-à*, which has completely merged with the prefixing agreement markers in six of nine cases, i.e. the relative clause marker is no longer recognisable. The assumption of a relative marker *à* in Gvyvma is supported by several reasons. First, it is consistent with the corresponding forms in Deeləmə and Gwaandama. Second, all other proforms in Deeləmə, Gvyvma and Gwaandama have prefixing agreement markers. Third, in Gvyvma, the same agreement markers are used with demonstrative proforms and the interrogative proform ‘which’ (cf. §4.4.7 and 4.4.8).¹⁷⁴

	Deeləmə	Gvyvma	Gwaandama
relative clause marker	<i>è</i>	<i>à (?)</i>	<i>á</i>

Table 36. Relative clause marker

The examples give an impression of the relative marker following the head noun. The comparison of the two Gvyvma examples clearly shows that it is difficult to define the underlying relative marker.

- Deeləmə**
- (131) *yír-á* *yè*
 woman-F.1.DEF 1.REL
 ‘the woman who...’
- Gvyvma**
- (132) *bàlǐ-w* *ũ*
 cow-W.3 3.REL
 ‘a cow that...’
- (133) *bàlǐ-hè* *áhà*
 cow-HA.4 4.REL
 ‘cows that...’

¹⁷⁴ Another possibility is that the relative clause marker is a (nasal) vowel *í-/ǐ-*. In three cases, it would then take on some properties of the following agreement marker: In agreement class 3, it would take the properties [+round] and [+back] from the approximant /w/: *í-/ǐ-w/* → [ú], in agreement classes 4 and 6 it would copy the properties of the vowel in the agreement marker: *í-hÀ/* → [áhà] and *í-À/* → [á]. If the relative marker were indeed a nasal vowel *í-/ǐ-*, then the fricative /h/ in agreement class 4 would be permeable, i.e. it would allow one vowel to assimilate to another, unlike the plosives /k/ and /t/: [íkà] and [ítà] (although in agreement class 7 the vowel is rendered differently in the various sources, e.g. *íkà* in my own data, but *ãka* and *ãki* in [S-G2] and *íke* and *íka* in [S-G1]). In both scenarios, the nasalisation of some of the portmanteau morphemes cannot be explained, regardless of whether the relative marker is *-à* or *í-/ǐ-*.

Gwaandama

- (134) *yì-b-á* *bá*
person-B.2-REF 2.REL
'the people who...'

For a complete list of the relative clause marker with all agreement targets, cf. §4.4.1. Further examples and details are provided in §4.4.9.

3.7 Numerals

3.7.1 General remarks

Numerals can be divided into two categories: cardinal numerals, which are used as attributes of a noun, and ordinal numerals, which “typically identify the position a given member of a set occupies relative to other members of the same set” (Stolz/Veselinova 2013).

In Nvngvrama, the functional domains differ between these classes and their morphosyntactic behaviour in a noun phrase also varies considerably (cf. §4.4.3 and §4.4.5). As a result, they are described in separate chapters below.

3.7.2 Cardinal numerals

The following table provides an overview of the numerals from ‘one’ to ‘hundred’ in the three varieties.¹⁷⁵

	Deelomə	Gvngvma	Gwaandama
‘1’	<i>kàlíwà</i>	<i>nàkàl</i>	<i>kàlilà</i>
‘2’	<i>nàkwá</i>	<i>nàsìr</i>	<i>nàtsìr</i>
‘3’	<i>nàsár</i>	<i>nàkwàyí</i>	<i>nàkwì</i>
‘4’	<i>nàjír</i>	<i>nàjír</i>	<i>nàjír</i>
‘5’	<i>nàjós</i>	<i>nàjós</i>	<i>nàjò</i>
‘6’	<i>sátàn</i>	<i>nàkə̀nàkwàyí</i>	<i>nàkə̀nàkwì</i>
‘7’	<i>jínàsìr</i>	<i>jínàkwàyí</i>	<i>jírnàkwì</i>
‘8’	<i>jítìn</i>	<i>jítìn</i>	<i>jítìn</i>
‘9’	<i>únàjós únàjír</i>	<i>jínàjós</i>	<i>jírnàjò</i>
‘10’	<i>kô</i>	<i>nwóm / gúm</i>	<i>kúwìr</i> ¹⁷⁶
‘11’	<i>kô yír kàlíwà</i>	<i>nwóm yírè nàkàl</i>	<i>kuwír yir kalila</i>
‘12’	<i>kô yír nàkwá</i>	<i>nwóm yírè nàsìr</i>	<i>kuwír yir natsir</i>
‘15’	<i>kô yír nàjós</i>	<i>nwóm yírè nàjós</i>	<i>kuwír yir najwa</i>

¹⁷⁵ For a detailed description of the numeral system in all Nvngvrama varieties, cf. Vigeland (2020a).

¹⁷⁶ Also *kùwàr* (e.g. in Hiraki 1986, [S-N1]).

'20'	<i>kútànátàkwǎ</i>	<i>nátásìr</i>	<i>nanatsir</i>
'30'	<i>kútànátàsár</i>	<i>nátákwàyí</i>	<i>nanakwi</i>
'100'	<i>kúlòw/kúlà kàlìwà</i>	<i>púlàwè</i>	<i>kulà kaliwa</i>
'1000'	<i>táwnò</i>	<i>átáwná</i>	<i>tawnawa kaliwa</i>

Table 37. Cardinal numerals¹⁷⁷

Many of the lower numerals have a lexeme-initial morpheme *nà-*.¹⁷⁸ This is referred to as a numeral marker (NUM), which precedes the numeral root. Diachronically, there are two possible explanations for the origin of this morpheme. First, it can be argued that it is the root of the lexeme 'hand' *na*-¹⁷⁹, which was used for counting, possibly in the sense of 'X items from a hand'. Secondly, the numeral marker could be derived from the lexeme for 'thing', *nàà* in Deeləmə and *nìá* in Gyyuma and Gwaandama, which was originally used for general counting ('thing one, thing two, thing three...'). The term was then later lexicalised (for more details, cf. Vigeland 2020a: 222f.).

All three varieties use the root *kal* for numeral 'one', but otherwise derive the numeral differently. Gyyuma adds the numeral marker *nà-*, while Deeləmə and Gwaandama add an epenthetic vowel and a different agreement marker each. The agreement marker is lexicalised in general counting, but changes in a noun phrase according to the NF class of the head noun. The numeral marker is added to the numeral roots in 'two' to 'five'. The reversal of the numerals 'two' and 'three' is striking, as Gyyuma and Gwaandama display a different order than Deeləmə. It is assumed that Deeləmə still retains the original order (cf. Vigeland 2020a: 240). Numeral 'six' is probably a compound in Deeləmə, although the origin of *-tàn* is unknown. In Gyyuma and Gwaandama, 'six' is more complex, consisting of the lexeme 'hand' *naka*, the numeral marker *na-* and the root for 'three'. This could be translated to mean 'three of each hand'. Similarly, the numeral 'seven' is also a compound, combining the numerals 'four' and 'three', with the latter having different roots in the varieties due to the interchange of the numerals 'two' and 'three'. The numeral 'eight' is derived from the root 'four' and an unknown morpheme *-tin*, which may function as a reduplicator (compare 'six' in Deeləmə). The numeral 'nine' is a compound of 'four' and 'five' in Gyyuma and Gwaandama, but of 'five' and 'four' in Deeləmə. The vowel *ú-* that appears before both numerals in Deeləmə remains unexplained.¹⁸⁰ The only simplex numeral is 'ten', which has 'Adamawa' origin in Deeləmə and Gwaandama, according to Pozdniakov (2018: 168). Gyyuma uses two different lexemes: *n^wám* has an unknown origin, while *gúm* is most likely borrowed from the Chadic language Dera.

The numerals from 'eleven' to 'nineteen' all follow the same structure: the numeral 'ten', a connecting morpheme *yír/yírù* and the single numeral. Variations between the different

¹⁷⁷ Sources for Gwaandama: Sabe 2014: 49, Kleinewillinghöfer 2014a and own data.

¹⁷⁸ The vowel is often lengthened, but since vowel length is not distinctive, it is not marked.

¹⁷⁹ *ná-* in Deeləmə and Gwaandama, *nà-* in Gyyuma.

¹⁸⁰ In Kleinewillinghöfer's (2014a) wordlist, the numeral 'nine' in Deeləmə is given as *naanyó* *nənyír*, whereas in Kolama, a vowel is inserted before both numerals: *énàányó inéenyír*.

varieties occur from ‘twenty’ to ‘ninety’. In Deeləmə, a nominalisation of ‘ten’ *kútà*, the plural of ‘hand’ *nátà* (both weakening the last vowel to a schwa) and the single numeral ‘two’, ‘three’, etc. are combined. Gvyvma also uses the lexeme ‘hands’ with a single numeral, but has no nominalisation of ‘ten’, while Gwaandama reduplicates the numeral marker *na-* before the numeral. For ‘hundred’, both Deeləmə and Gwaandama combine a nominalisation of ‘ten’ (but with a different suffix than before) with ‘one’, while Gvyvma has an invariable lexeme that includes a lexicalised NF class suffix. Deeləmə and Gvyvma share the same lexeme for ‘thousand’, while Gwaandama uses the same root with a lexicalised agreement suffix as well as ‘one’.

For information on agreement marking on cardinal numerals, cf. §4.4.5.

3.7.3 Ordinal numerals

Most ordinal numerals are derived from the corresponding cardinal numerals, except those for ‘first’ in the three varieties and perhaps ‘second’ in Deeləmə. The latter is *kúr-*, which may resemble the cardinal numeral root *kwá* ‘two’, but is more likely to be a suppletive form with no etymological link. The lexemes *fíngárá-* (Deeləmə) and *cíngíri-* (Gvyvma) for ‘first’ both derive from the verb ‘to begin, to start’.

The means of derivation for all other ordinal numerals vary in the varieties and will be illustrated in the following sections. Agreement marking on ordinal numerals is exemplified in §4.4.3.

Deeləmə

Deeləmə utilises a derivational suffix *-yá*, which is added to the numeral stems to derive the ordinal numerals from ‘second’ to ‘fifth’. Numerals from ‘sixth’ to ‘ninetieth’ do not require this suffix.

	Ordinal numeral	Form of derivation
‘first’	<i>fíngárá</i>	suppletion
‘second’	<i>kúr-yá</i>	suppletion and derivational marker
‘third’	<i>sár-yá</i>	derivational marker
‘sixth’	<i>sátàn</i>	no marking
‘tenth’	<i>kô</i>	no marking

Table 38. Ordinal numerals in Deeləmə

Gvyvma

To derive ordinal numerals in Gvyvma, the numeral stems of ‘two’ to ‘ten’ follow the derivational prefix *ná-*. However, the ordinal numeral ‘first’ and all those above ‘tenth’ do not require this marker.

	Ordinal numeral	Form of derivation
‘first’	<i>kìlàwǔ̃ / cingíri</i>	suppletion
‘second’	<i>ná-nàsír</i>	derivational marker
‘third’	<i>ná-nàkwàyí</i>	derivational marker
‘tenth’	<i>ná-nwôm</i>	derivational marker
‘eleventh’	<i>nwôm yírò nàkàl</i>	no marking
‘twentieth’	<i>nátísír</i>	no marking

Table 39. Ordinal numerals in Gvyoma

Gwaandama

Gwaandama, like Deeləmǝ, has a derivational suffix *-yá*, which is added to the numerals ‘second’ and ‘third’. There is no information in the data about the following numerals up to ‘ninth’. Ordinal numerals from ‘tenth’ onwards add a suffix *-yá*, which has the same form as the derivational suffix, but is more likely to be an agreement marker of AGR class 1 (see example (346) in §4.4.3). That Gwaandama may not have a derivational marker with ordinal numeral ‘tenth’ or above is not surprising when compared with Deeləmǝ and Gvyoma. However, until more data is available, a final conclusion is not possible.

	Ordinal numeral	Form of derivation
‘first’	<i>káwǔndá / cingíri</i>	suppletion
‘second’	<i>tsír-yá</i>	derivational marker
‘third’	<i>kúr-yá</i>	derivational marker
‘tenth’	<i>kòwàr</i>	no marking (?)
‘twelfth’	<i>kùwir yir nàtsír</i>	no marking (?)

Table 40. Ordinal numerals in Gwaandama

3.8 Particles

3.8.1 General remarks

Particles refer to uninflected items with very diverse functional roles, syntactical behaviour, semantics and structures (Zwicky 1985: 290f., Schachter/Shopen 2007: 44). Nevertheless, they are all grouped together in this chapter for the purpose of this thesis.

3.8.2 Comitative =*nA*

The comitative clitic =*nA* is used in constructions denoting possession. In Gvyoma and Gwaandama, it is only attested in examples of possessive predicates, while in Deeləmǝ it also occurs with possessive pronouns. The comitative does not have an inherent tone but takes on a polar tone to the preceding TBU and falls within the domain of the ATR vowel harmony of the preceding morpheme. In Gwaandama, the vowel of the comitative in [-ATR] environments is [ɪ] rather than [a].

The following examples illustrate the use of the comitative. Additional examples of the comitative in possessive predication can be found in chapter §7.3.2.4.

- Deeləmə**
- (135) *mìyá-há* *jí=nà*
 goat-HA.DEF 1SG=COM
 ‘I have goats’
- (136) *bátír-l-à* *lá-mò=ná*
 battery-L.5-REF 5-2SG.POSS=COM
 ‘your battery (with you)’
- (137) *bátír* *á-bv=ná*
 battery.6 6-3PL.POSS=COM
 ‘their batteries (with them)’

- Gvyuma**
- (138) *há=gá* *bí-l-á* *jí=nè=gè*
 COP=NEG money-L-REF 1SG=COM=NEG
 ‘I don’t have money’

- Gwaandama**
- (139) *wé* *nú* *há=nì* *mìyá-há* *nà-hà-tsír*
 father 1SG.POSS COP=COM goat-HA.4.REF NUM-4-two
 ‘my father has two goats’

3.8.3 Adpositions

3.8.3.1 General remarks

Adpositions are “grammatical tools that mark the relationship between two parts of a sentence” (Hagège 2010: 8). They govern complements such as pronouns, nouns or noun phrases and form adpositional phrases with them. Adpositions introduce new oblique arguments with notions such as location, relationship/accompaniment or instrument and thus provide information “about the semantic role of an adjacent noun phrase in the clause” (Payne 1997: 86). Depending on their syntactical position, they are called prepositions or postpositions.

Nvngvrama has at least two prepositions and several postpositions that occur frequently in the data and are discussed in the following subchapters. One preposition conveys an instrumental and accompaniment notion, while the second preposition indicates spatial relationships that include “most essentially the location, direction, or goal of the event denoted by the verb of the clause” (DeLancey 2005: 187). All postpositions have specific spatial meanings.

3.8.3.2 Instrumental preposition *nà/né*

The preposition *nà* (in Deeləmə and Gwaandama)/*né*¹⁸¹ (in Gvyuma) has an instrumental role, adding “a participant that the agent uses to act on the patient” (Andrews 2007b:

¹⁸¹ Shortened to *n* in Newman (1976, 1978).

140).¹⁸² In other words, the preposition adds an argument that is the tool the agent is using to perform an action or that is the means to move somewhere (cf. examples (141), (144) and (145)). It is also used with verbs such as ‘go’ or ‘come’. In this case, the new participant is not necessarily involved in the act of moving but rather has the connotation of an accompaniment (cf. examples (140) and (142)) and could thus be referred to as ‘comitative’. However, to avoid confusion with the comitative marker described in §3.8.2, it is glossed as ‘instrumental’ in all cases.

Deelɔmɔ

- (140) *bá-zú* *nà* *cá-há*
 3PL-go.VEN INST hoe-HA.DEF
 ‘they came with hoes’

Gvyɔma

- (141) *ń-zà* *zì-ká-yôw* *né* *kèké-w-á*
 1SG.FUT-go town-KA.REF-PP.inside.DEF INST Keke-W-REF
 ‘I will go to town by Keke¹⁸³’

- (142) *bà-zú* *né* *jí-té*
 3PL-go.VEN INST arrow-TA.REF
 ‘they came with arrows’

- (143) *n-haw-na-m* *n* *gaw* *ah-a*
 1SG.FUT-spear-PLU=2SG.OBJ INST spear.4 4-DEM1
 ‘I’ll spear you with these spears’ (Newman 1976: 49)

Gwaandama

- (144) *àw-tá* *nà=bà-bíká* *nà* *bùngál-w-ē*
 soup-TA.REF PROG=3PL-make INST Bungəlwe-W-REF
 ‘they used to make the soup with Bungəlwe’ [B-N4]

- (145) *ná-wàkà* *mí-l-á* *nà* *dwà-m-à*
 1SG-wash body-L-REF INST water-M-REF
 ‘I wash myself with water’

¹⁸² The instrumental preposition is identical in form to the coordinating conjunction *nà* in Deelɔmɔ and Gwaandama (§5.3) and is also similar in form to the comitative =*nA* (§3.8.3). All of them are also formally similar to the pluractional verb extension. Taken together, they have been described as a “verb suffix” in B. Newman (1978: 30). However, they have very different functions: the pluractional is a derivational suffix that attaches directly to the verb root, the comitative marker is a clitic that attaches phonologically to any lexeme preceding it, the instrumental is a preposition that forms an adpositional phrase and the coordinating conjunction combines noun phrases with each other.

¹⁸³ A Keke is a three-wheeled motor vehicle commonly used for public transportation in Nigeria.

3.8.3.3 Spatial preposition *á*

The preposition *á* indicates general spatiality or unspecific locational conditions. It occurs in both static and dynamic situations and can thus have various translations in English depending on the context, such as ‘in’, ‘at’, ‘from’, etc.¹⁸⁴ The following examples illustrate the use of the preposition to form an adpositional phrase.

- Deelɔmɔ**
- (146) *bá-zà* *bá-fà* *gìngírí-l-à*
 3PL-went 3PL-found frog-L-REF
- á* *sáká-w-è*
 SPAT jar-W-REF
 ‘they [went, they] found a frog in a jar’
- Gvɔvɔma**
- (147) *dí* *nín* *bə* *n-daw-a=ĩ*
 and 1SG COMPL 1SG.FUT-wait-FV=3SG.OBJ
- a* *ma-m* *mi-l-e*¹⁸⁵
 SPAT water-M body-L-REF
 ‘and as for me, I will wait for him at the tamarind tree’ (J. Newman 1978: 92)
- Gwaandama**
- (148) *bá-[↓]ním-d-à* *yáká-l-á*
 3PL.IMP-receive-RLT-FV corn-L-REF
- á* *dũ* *Gwãdà=nà*
 SPAT man.Y Gwan=CF
 ‘they would receive the corn from the Gwaanda man’ [B-N1]

Adpositional phrases that indicate specific spatial relations are discussed in the following chapter. They usually include the spatial preposition *á*.

3.8.3.4 Spatial postpositions

Nvngvrama exhibits several postpositions to indicate specific spatial relations. The adpositional phrases in which they occur can optionally add the spatial preposition *á*. The semantics and syntactical positions are summarised in the following table.

¹⁸⁴ See also Littig (2020), whose survey of spatial adpositions in ‘Adamawa’ languages shows that almost all languages investigated have a general adposition expressing spatiality. Some of these languages have a form similar to the Nvngvrama preposition, e.g. *à* in Nganha Mbum, and *á* in Mumuye (2020: 286). Cf. Kleinewillinghöfer (1991: 103) and Lukas (1954/1956: 103, 167) who report a neutral locative formation with *à* in Waja and *a* in Tula. It is possible that this general spatial adposition originated from Hausa *à* ‘at, in, on, during’.

¹⁸⁵ The term for ‘tamarind tree’ is a genitive that literally translates to ‘water of body’.

	Deeləmə	Gvɥvɔma	Gwaandama
‘inside X’	(á) X-yÁ	(á) X-yÁ	(á) X=ɲI ¹⁸⁶
	(á) Xfō	(á) Xfē	?
‘on X’	(á) X-rÁ	(á) X-rÁ	(á) X-rA ¹⁸⁷
‘under X’	(á) Xfōw	(á) X sé	(á) X tsì
‘on top of X, above’	(á) X dùɲì	(á) X dé	(á) X dùɲì

Table 41. Spatial postpositions¹⁸⁸

The postpositions ‘inside’ and ‘on’ phonologically attach to the preceding complement, changing the vowel according to the ATR vowel harmony of that complement. In Gwaandama, the postposition =ɲI is a clitic that attaches to the last element of the complement, while the postpositions -yÁ/-yÁ in Deeləmə and Gvɥvɔma and -rÁ/-rA in all varieties are suffixes that attach to the head of the complement. This poses an analytical problem as adpositions are not derivational elements and therefore cannot be affixes. However, with the available data, this issue cannot be resolved. Therefore, they will be provisionally referred to as postpositions. The remainder of this chapter will examine the postpositions and the cases of phonological attachment.

There are two different postpositions with the meaning ‘inside’ in both Deeləmə and Gvɥvɔma, while only one postposition for ‘inside’ is attested in Gwaandama. In Deeləmə and Gvɥvɔma, vowels preceding the postposition -yÁ in Deeləmə and Gvɥvɔma assimilate to the approximant /y/ by becoming a high front vowel (cf. §2.1.3.4). The following two examples illustrate this. All other examples do not indicate this type of assimilation, as it seems to be the speaker’s choice and mostly occurs in fast speech.

Deeləmə

/sákə-wÁ-yÁ/ [sákə-wí-yà] ‘inside the jar’

Gvɥvɔma

/zì-kÁ-yÁ/ [zì-kí-yá] ‘in town’

The postpositions for ‘inside’ are illustrated in the following examples.

Deeləmə

- (149) á-yú=wé sákə-wá-yà
 3SG-come.out=VEN jar-W-REF.DEF-PP.inside
 ‘it [the frog] came out of the (inside of the) jar’

- (148) sŕ-hà á zì-kà-yà
 dog-HA SPAT village-KA-PP.inside
 ‘dogs in the village’

¹⁸⁶ The clitic has a polar tone to the tone of the preceding TBU.

¹⁸⁷ The suffix copies the tone of the preceding TBU.

¹⁸⁸ Sources for Gvɥvɔma: Newman/Newman 1977b: 32, [WL-G1] and own data. Sources for Gwaandama: Hiraki 1986: 189, [S-N3] and own data.

- (150) *á* *fwá-w-à* *fò*
 SPAT house-W.REF PP.inside
 ‘inside the house’

Gvyoma

- (151) *á* *zí-ká-yá=ò*
 SPAT town-KA.REF-PP.inside=DEF
 ‘in(side) the town’

- (150) *sír-há* *á* *tí-ká-yá=ò*
 bee-HA.REF SPAT tree-KA.REF-PP.inside=DEF
 ‘bees inside the tree’

- (153) *a-za* *fa* *Nungeye-w-e* *a* *ma-m-a-ye*
 3SG-go find hippo-W-REF SPAT water-M-REF-PP.inside
 ‘s/he went and found Hippo in the water [...]’ (J. Newman 1978: 104)

- (154) *a-gub* *niya-m-a* *fe*
 3SG-hold memory-M-REF PP.inside
 ‘he kept it in his mind’ (Gen 37, 11) (Wycliffe Bible Translators n.d.)

Gwaandama

- (155) *á* *kùnyì-lè=ɲí=ù*
 SPAT bush-L-PP.inside-DEF
 ‘in(side) the bush’ [S-N3]

- (156) *sù-hé* *dzà-kà=ɲí=ù*
 dog-HA.REF village-KA=PP.inside=DEF
 ‘dogs in the village’

- (157) *à=dwálà* *ɲí-e* *ĩ-yù* *nà-à-tsîr*
 3SG=lose tooth-A.6 6-3SG.POSS NUM-6-two

- á* *kùn-lè=ɲí=ù*
 SPAT fight-LA=PP.inside=DEF
 ‘s/he lost two of his/her teeth in the fight’ (Hiraki 1986: 189)

In Deeləmə and Gvyoma, *-yÁ* is a suffix, while in Gwaandama, *=ɲI* is a clitic that attaches to the rightmost position of the noun phrase. This difference becomes evident when attributes are added to form a noun phrase, as shown in the following examples. In the Gvyoma example (158), the suffix attaches to the head noun and not the numeral following it, whereas in the Gwaandama example (159), the clitic attaches to the last element of the noun phrase (cf. §6.3.4 for other positions of the clitic).

Gvyoma

- (158) *á-búl* *wàsíká-w-á=ò* *á* *tálà-w-yà* *nà-wò-kál*
 3SG-write letter-W-REF=DEF SPAT time-W.3-PP.inside NUM-3-one
 ‘s/he wrote the letter in an hour’ (lit. at the inside of an hour)

Gwaandama

- (159) *bà-fá* *dzwá-b* *béré-bé=ù*
 3PL-find child-B.2 many-2=DEF
- á* *dzì-m* *mwára-m=jí*
 SPAT city-M.9 big-9-PP.inside
 ‘many children are found in big cities’ (Hiraki 1986: 191)

The spatial adposition for ‘on’ is another phonologically dependent suffix, as demonstrated in the following examples.

Deeləmə

- (160) *á* *cǎ-kà-rà*
 SPAT leg-KA-PP.on
 ‘on the leg’

Gvyoma

- (161) *á* *cáw-tá-rà=ò*
 SPAT leg-TA.REF-PP.on=DEF
 ‘on the legs’

- (160) *jíjá-w-á=ò* *á-yá=wá* *á* *wíndó-w-rè*
 dog-W.3-REF=DEF 3=fall=VEN SPAT window-W-PP.on
- né* *kwéká-l-é=ù*
 INST jug-L-REF=DEF
 ‘the dog fell out of the window with the jug’

Gwaandama

- (163) *dáw* *tákàdā-hā* *á* *tébùr-w-à-rè*¹⁸⁹ *wá-mà*
 keep book-HA SPAT table-W.3-REF-PP.on 3-DEM3
 ‘keep the books on that table!’ (Hiraki 1986: 172)

The marker *-rA* ‘on’ has an allomorph *-dA* that occurs after the alveolar approximant /l/ and the bilabial nasal /m/ in all three varieties (cf. §2.1.1).¹⁹⁰

Deeləmə

- (164) *bá-bù* *á* *gúbá-l-dà*
 3PL-climb SPAT stone-L-PP.on
 ‘they climbed onto the a stone’

Gvyoma

- (165) *á* *ywí-l-dà*
 SPAT breast-L-PP.on
 ‘on the breast’ [S-G2]

¹⁸⁹ Actually *tébùrwùrè*.

¹⁹⁰ There may be a connection to the general spatiality marker in some Samba-Duru languages, such as *rú* in Kolbila, *dú* in Samba Leeko and other similar forms in Doyayo, Beiya, Riitime and Kobom (Littig 2018).

- (166) *á* *thwakı-m-dá*
 SPAT soil-M-PP.on
 ‘on the soil’ [S-G2]

Gwaandama

- (167) *bà-búl* *hába-ká* *nà=bà-bà* *yákâ-m-dá=ò*
 3PL-strike fire-KA.REF PROG=3PL-put corn-M-PP.on-DEF
 ‘they struck fire and then put (it) on the corn’ [B-N4]

The postposition for ‘**above**’ is considered an independent morpheme due to its lack of harmony with the vowels of the preceding lexeme. In both Gyyuma and Gwaandama, it is primarily found in lexicalised expressions in the data, as the following examples show.

Deeləmə

- (168) *á* *cá-ká-rà* *dùni*
 SPAT leg-KA.DEF-PP.on PP.above
 ‘on top of the leg’
- (169) *á* *sǎ-w-à* *dùni*
 SPAT dog-W-REF PP.above
 ‘on top of the dog’

Gyyuma

- (170) *nàlá-ká* *dé*
 sun-KA.REF PP.above
 ‘God’ (lit. above the sun)
- (171) *tã-da* *dé*
 room-L PP.above
 ‘roof’ [WL-G1]

Gwaandama

- (172) *yà* *dùni*
 place.A PP.above
 ‘heaven’
- (173) *hába-ká* *dùni*
 fire-KA.REF PP.above
 ‘hell’ [WL-N1]

The postposition for ‘**under**’ is an independent morpheme, similar to ‘above’. The examples illustrate this.

Deeləmə

- (174) *á* *fà-kà* *fǒw*
 SPAT mountain-KA PP.under
 ‘at the bottom of the mountain’

- Guyuma**
- (175) *á* *téburù-w* *sé*
 SPAT table-W PP.under
 ‘under a table’
- (176) *á* *tí-ká* *sé=ù*¹⁹¹
 SPAT tree-KA.REF PP.under=DEF
 ‘under the tree’
- Gwaandama**
- (177) *á* *yàtsù-w* *tsì*
 SPAT seat-W PP.under
 ‘under a seat’

The independent postpositions can also precede the complement, which then become a noun with the NF class suffix *w*, thus forming a genitive construction. No semantic difference from the constructions shown above is confirmed. Examples are only attested for *Deelomə* and *Guyuma*.

- Deelomə**
- (178) *á* *fò-wà* *fwá-w-à*
 SPAT inside-W house-W-REF
 ‘inside the house’
- (179) *á* *fó-wá* *fà-kà*
 SPAT under-W mountain-KA
 ‘at the bottom of the mountain’
- Guyuma**
- (180) *a* *fu-we* *zi-ka*
 SPAT inside-W snake-KA
 ‘inside the snake’ [S-G2]
- (181) *a* *ridi-we*¹⁹² *yya-w-a*
 SPAT above-W dog-W-REF
 ‘on top of the dog’
- (182) *a* *risi-we* *lara-ha=v*¹⁹³
 SPAT under-W elephant-HA=DEF
 ‘under the elephants’ [S-G2]

The spatial expressions ‘next to/beside’, ‘behind’ and ‘in front of’ are conveyed through more complex constructions. The expressions are essentially adpositional phrases with the preposition *á* and a genitive construction that includes a body part or location and the

¹⁹¹ It becomes [sôw] phonetically.

¹⁹² It is not clear what *ri-* in this and the next example means. It may have derived from *-rÁ* ‘on’.

¹⁹³ The order is reversed in some examples, i.e. the nominalised postposition follows the complement, e.g. *a tka risiweu* ‘under the tree’ [S-G2]. After a nasal /m/, *risiwe* becomes *disiwe*, e.g. *a tm disiweu* ‘under the trees’ [S-G2] (cf. §2.1.1.1).

postposition *-rÁ/-rA* ‘on’ and in one instance in *Deeləmə*, the postposition *-yÁ* ‘inside’. These nouns with postpositions are lexicalised and are therefore treated as such in interlinearisation. The table below provides an overview of the morphosyntactic setup.

	Deeləmə	Gvyvma	Gwaandama	Original source of the derivations
‘next to X, beside X’ (lit. on the side of X)	<i>á X bəngərə</i> (<i>bəngərə-w-à + -rÁ</i>)	<i>á kʷngələrə X</i> (<i>kʷngil-w-a + -rÁ</i>)	<i>á bəngərə X / X bələ</i> (<i>bəngərə-w-à + -rA</i>)	‘side’
‘behind X’ (lit. in/on the back of X)	<i>á X sékiyə</i> (<i>sí-kə + -yÁ</i>)	<i>á zəkər(ə) X</i> (<i>zə-ké + -rÁ</i>)	<i>á dzəkər(ə) X</i> (<i>dzi-kà + -rA</i>) ¹⁹⁴	‘back’
‘in front of X’ (lit. on the forehead of X)	<i>á X kábrə</i> (<i>kab-l-a + -rÁ</i>)	<i>á kàbrə X</i> (<i>kab-l-á + -rÁ</i>)	<i>á kàbrə X</i> (<i>kàb-l-à + -rA</i>)	‘forehead’

Table 42. Derived spatiality markers¹⁹⁵

¹⁹⁴ Note that in Gwaandama, the vowels in the lexicalised item for ‘behind’ differ from those in the underlying noun ‘back’. The reason for this is unclear.

¹⁹⁵ Sources for Gvyvma: [WL-G1, WL-G2] and own data. Sources for Gwaandama: [S-N3, WL-N1] and own data.

The spatial expressions in Deeləmə differ from those in Gyyuma and Gwaandama in terms of syntax, as the word order is reversed. However, in Deeləmə, the ‘locative noun’ can be fronted to emphasise the location (cf. examples (187) and (188)). Similarly, the word order can also be changed in Gyyuma (cf. examples (189) and (190) as well as (194) and (195)) and Gwaandama (cf. (185) and (186) in which the lexeme for ‘next, beside’ differ, (191) and (192) as well as (196) and (197)). It is unclear whether emphasis is also the reason for the variation in word order in Gyyuma and Gwaandama. This could be the subject of further research.

The examples below demonstrate the use of the different adpositional phrases listed in the table above.

Examples for ‘next to, besides’ are:

- Deeləmə**
- (183) *á* *yè* *bàngòrà*
 SPAT 3SG.POSS next
 ‘at his/her side / next to him/her’
- Gyyuma**
- (184) *á* *kúngòlòrà* *yí-r-é=ù*
 SPAT next person-R-REF=DEF
 ‘next to the person’
- Gwaandama**
- (185) *tswá-w-á* *wà* *bàngòrà* *yíl-ká*
 house-W.3-REF 3.REL next road-KA.REF
 ‘a house beside the road’ (Hiraki 1986: 123)
- (186) *á* *gihí-y-á* *bálá*
 SPAT wife-Y-REF next
 ‘next to the wife’ [S-N3]

Examples for ‘behind’ are:

- Deeləmə**
- (187) *á* *tí-ká* *sákíyà*
 SPAT tree-KA.DEF behind
 ‘behind the tree’
- (188) *á* *sákíyà* *tí-ká*
 SPAT back tree-KA.DEF
 ‘behind the tree’
- Gyyuma**
- (189) *a* *zákàre* *belĩn-w-e*
 SPAT behind cow-W-REF
 ‘behind the cow’ [S-G2]

- (190) *kur* *yine* *zakər*
 return 1SG.OBJ back
 ‘get behind me’ (Mt 16, 23) (Longuda Bible Translation Society 1978)

Gwaandama

- (191) *á* *dzikìr* *tswá-w-á=ò*
 SPAT behind house-W-REF=DEF
 ‘behind the house’

- (192) *á* *yà-á* *dzikìrə*
 SPAT place-A.REF behind
 ‘behind the place’ [B-N1]

Examples for ‘in front of’ are:

Deeləmə

- (193) *á* *fwá-w-à* *kábrà*
 SPAT house-W-REF front
 ‘in front of the house’

Gyyuma

- (194) *á* *kàbrà* *tì-kà=ò*
 SPAT front tree-KA=DEF
 ‘in front of the tree’

- (195) *a-kwab* *ma-m-a* *ni* *wakı-r*
 3SG-took water-M-REF and wash-RLT

na-a *ye-e* *a* *ni-b-e* *kabra*
 hand-A.6 3SG.POSS-6 SPAT man-B-REF front

‘he took water and washed his hands in front of the crowd’ (Mt 27, 24)
 (Longuda Bible Translation Society 1978)

Gwaandama

- (196) *dwi-y-á=ò* *hà* *kàbrà* *tswá-w-á=ò*
 man-Y-REF=DEF COP front house-W-REF=DEF
 ‘the man is in front of the house’

- (197) *nỳs̀v̀m-b-á* *nà=bə-àrà* *gá*
 elder-B-REF PROG=3PL-agree NEG

nà=bə-dzi *bàtìrà-w* *kàbrà=gá*
 PROG=3PL-go European-W front=NEG

‘the elders avoided meeting the European face to face’ (lit. the elders did not agree to go in front of the European) [B-N4]

3.8.4 Conjunctions

Conjunctions function as connectors for lexemes, phrases and clauses. Coordinating conjunctions, such as ‘and’, ‘but’ and ‘or’ “assign equal rank to the conjoined elements” (Schachter/Shopen 2007: 45). Clause coordination with coordinating conjunctions (and the lack thereof) is discussed in §7.4.2, while coordination of noun phrases is described in §5.3. Subordinating conjunctions “assign unequal rank to the conjoined elements, marking one of them as subordinate to the other” (Schachter/Shopen 2007: 45). There are three kinds of subordinate conjunctions that also occur in Nungvrama:

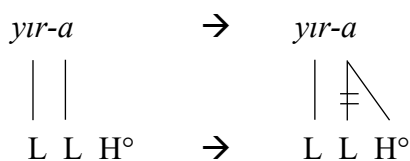
- complementisers (e.g. ‘that’, ‘in order to’; cf. §7.4.3),
- adverbialisers that mark an adverbial clause (e.g. ‘when’, ‘while’, ‘until’, ‘since’, ‘if’; cf. §7.4.4), and
- a relativiser (i.e. a marker to introduce a relative clause, cf. §3.6.7).

In Nungvrama, conjunctions usually precede the phrase or clause, except for the conjunction ‘if’.

3.8.5 Definite particles =^H and =^U

Many languages, especially African languages, have a definite marker or definite article, while the opposite, an indefinite marker, is often absent (Dryer 2007b: 152, Becker 2021: 330). According to Hurford (1994: 34), “the source of (in-)definiteness in NPs is pragmatic, typically involving considerations such as whether the speaker presupposes the hearer can identify the referent of the NP concerned”. The primary function of definite articles is therefore to “mark the referent of the noun that they occur with as identifiable for all discourse participants” (Becker 2021: 93). This referential marking is one of three criteria that define articles as a cross-linguistic category. The other two criteria are the accompaniment of lexical referents, mostly nouns, and systematic distribution (Becker 2021: 36ff.).

In Nungvrama, there are various ways of marking definiteness. Deeləmə differs from Gvyoma and Gwaandama in this regard. Deeləmə expresses definiteness mainly with demonstrative proforms (§3.6.5). However, it can also indicate definiteness by placing a high tone on the last TBU of the noun. This high tone may be a floating high tone =^H, which is a remnant of a definite particle, but this is currently just a hypothesis. The following schema with tonal tiers as well as the corresponding examples (196) with (197) exemplify how the floating high tone replaces the low tone of the TBU.



Deeləmə

- (196) *yìr-à* *fəm-à*
 woman-F mother-W
 ‘a woman is a mother’
- (197) *yìr-á* *fəm-à*
 woman-F.DEF mother-W
 ‘the woman is a mother’

The same tonal changes occur in examples below.

- (198) *fəm-à* *hàní-záká* *zwá* *yá-yè*
 mother-W.3 3SG.IMP-like child.1 1-3SG.POSS
 ‘a (every) mother loves her child’
- (199) *fəm-á* *hàní-záká* *zwá* *yá-yè*
 mother-W.3.DEF 3SG.IMP-like child.1 1-3SG.POSS
 ‘the mother loves her child’
- (200) *pó-‘à* *ĩ-bá*
 thigh-A.6 6-DEM1
 ‘these thighs’
- (201) *pó-‘á*
 thigh-A.DEF
 ‘the thighs’
- (202) *ńám* *mwára-wà*
 animal.3 big-3
 ‘(an) elephant’
- (203) *ńám* *mwára-wá*
 animal.3 big-3.DEF
 ‘the elephant’

In Gvyuma and Gwaandama, a segmental definite article = \dot{U} ¹⁹⁶ is used to mark definiteness. This article has all referential functions as defined in Becker (2021: 99), i.e. deictic, anaphoric, recognitional, establishing, situationally unique, contextually unique, bridging and absolutely unique. The definite article cliticises to the referential suffix -A

¹⁹⁶ Newman and Newman (1977b: 18) interpret the definite marker as having the shape =w \dot{U} in order to account for their proposed syllable structure, which always starts with a consonant: “In the word final position a sequence of a vowel and a high vocoid occurring in the postnuclear slot is interpreted as VCV, with a weak consonant [...] (w) occurring between the vowels” (Newman/Newman 1977b: 18).

of a noun¹⁹⁷ or the last element of a noun phrase or adpositional phrase, giving it scope over the entire phrase.¹⁹⁸

Gvɔvɔma

(204) *dél* *bà-hár* *mwá-w* *mí-l-é=ù*¹⁹⁹
 when 3PL-COP.PST.NOM²⁰⁰ farm-W body-L-REF=DEF
 ‘when they were at the farm...’ (lit. when they were at the body of the farm)
 (Newman/Newman 1977b: 70)

(205) *mwá-y-á=ù* *á-zù-né*
 woman-Y.1-REF=DEF 3SG-go-PLU
 ‘the woman moved around’

(206) *gíngírí-l-á=ù* *á-yú=wé* *á* *kwèkà-l-é-yè=ù*
 frog-L.5-REF=DEF 5-come=VEN SPAT jug-L-REF-PP.inside=DEF
 ‘the frog came out of the jug’

(207) *sìngílá-w* *ǎ* *nà-sìr-wá=ù*
 sheep-W.3 3.REL NUM-two-3=DEF
 ‘the sheep that is the second one’

(208) *dìbà-ká* *sú-kà=ù*
 shirt-KA.7.REF new-7=DEF
 ‘the new shirt (e.g. among old shirts)’

Gwaandama

(209) *á-wákà* *dzwí-y-á=ù*
 3SG-wash child-Y-REF=DEF
 ‘she washes the child’ [S-N2]

(210) *nù* *filì-lá=ù*
 eye.L.5 small-5=DEF
 ‘the small eye’ [S-N3]

(211) *dzi-kà* *mwárà-kà* *swí-kà=ù*²⁰¹
 snake-KA.7 big-7 black-7=DEF
 ‘the big black snake’ (Hiraki 1986: 149)

(212) *bì-nálgí* *jàmá-w-á=ù*
 3PL-sharpen knife-W-REF=DEF
 ‘they sharpened the knife’

¹⁹⁷ The REF particle is never absent when a definite article is added.

¹⁹⁸ Compare also Tula, as it has a definite marker with a “strong definite functionality” (lit. “starke definite Funktionalität”) (Elstermann 2021: 44) that also functions as a relative proform. Although its shape is not yet clear, it appears to be similar to that of Nvngurama, i.e. *-o* or *-u*.

¹⁹⁹ *mílé=ù* in Newman/Newman (1977b: 5).

²⁰⁰ It is unclear why the copula used for nominal predicates is employed here.

²⁰¹ There is no indication of tone on the last vowel (i.e. *=u*) in the original source. However, since the article is generally marked with a low tone it is added here.

- | | | | | |
|-------|---------------------|-------------------------------|--------------------------------|--------------------|
| (213) | <i>yúná</i>
such | <i>nàlī</i>
like | <i>gìngírìsúsú-á</i>
toad-A | <i>nà</i>
COORD |
| | <i>cí</i>
other | <i>nyàm-hà</i>
animal-HA.4 | <i>bírà-hà=ò</i>
many-4=DEF | |
- ‘such as toads and many other animals’ [B-N1]

Because the article =*Ù* always attaches to a vowel but a hiatus is generally not possible in Nungurama, there are two ways to resolve it. The first method is to insert an approximant [w] between the two vowels. Sometimes, the preceding vowel partially assimilates to the vowel backness of the definite article, resulting in a back vowel (cf. §2.1.3.3 for more details). Compare the following examples with the phonetic form on the right.

- Gvyvma**
- | | | |
|-------|---|-----------------------------|
| (214) | <i>cìrè-w-é=ù</i>
knife-W-REF=DEF
‘the knife’ | <i>[cìrèwówù]</i> |
| (215) | <i>zwá-b-á=ò</i>
child-B-REF=DEF
‘the children’ | <i>[z^wábówò]</i> |

With the second way, the vowel of the NF class suffix and the definite article merge, resulting in the occurrence of both a high and a low tone on a single syllable. The vowels influence each other, resulting in coalescence, i.e. they fuse and often “meet somewhere in the center” (Anyanwu 2008: 177) during the assimilation process. This second hiatus resolution tends to occur more frequently in lexemes with [+ATR] vowels than with [-ATR] vowels. Compare the phonetic forms of examples (216) and (217) below with those of examples (214) and (215).

- Gvyvma**
- | | | |
|-------|---|---------------------------|
| (216) | <i>cìrè-w-é=ù</i>
knife-W-REF=DEF
‘the knife’ | <i>[cìrèwò]</i> |
| (217) | <i>zwá-b-á=ò</i>
child-B-REF=DEF
‘the children’ | <i>[z^wábò]</i> |

Whether the definite marker appears in its full form or merges with the preceding vowel is a matter of free variation. The full form occurs more often in elicited speech, whereas the merged form is more common in free speech. Throughout this thesis, the different hiatus resolution processes are therefore not depicted.

In Gwaandama, the definite marker has a lower function load compared to Gvyvma. Further research is needed to determine if this is due to the nature of the data or if it can be quantitatively demonstrated. However, some examples in Gwaandama suggest, that phrases with quantifying attributes, such as ‘many’, ‘all’ and ‘every’, which are

considered to be inherently definite in many languages, can be marked with the definite clitic. This also applies to places and terms for ethnic groups, which Dryer (2007: 161) considers to be rather rare. No such occurrences were found in the Gvɔvma data.

Gwaandama

- (218) *g̀v̀b́á-á* *b́ír-a=̀v̀*
stone-A.6 many-6=DEF
‘many stones’ [S-N1]
- (219) *ỳì-b-̀à* *d̀z̀ì-b́á=̀ù*
people-B.2-REF all-2=DEF
‘all people’ [B-N1]
- (220) *cí* *Ǹng̀úŕá-b-á=̀ù* *b́ándà* *m̀ìr* *Gwǎ̀ndà-b-á=̀v̀*
other Ǹng̀v̀ŕa-B.2-REF=DEF apart 1PL.SBJ Gwaanda-B.2-REF=DEF
‘other Ǹng̀v̀ŕaba, apart from us Gwaanda people...’ [B-N1]
- (221) *ìn-d̀z̀ì* *ch̀ìnr̀í-á=̀ù*
3SG-go Chinri-REF=DEF
‘s/he would go to Chinri’ [B-N1]

3.8.6 Verbal particles

3.8.6.1 General remarks

Verbal particles are verb adjuncts that are “a closed class of uninflected words that co-occur with certain verbs” (Schachter/Shopen 2007: 44).

In Ǹng̀v̀ŕama, there are at least four verbal particles, two preceding the verb root and two following it. All four undergo verbal attraction and therefore cliticise onto the verb (or copula), forming a phonological unit with it. The table below summarises these particles, which are then described sequentially in the following chapters.

Position	Form	Appellation
preverbal	* <i>an=</i>	Strict relative
	<i>na=</i>	Progressive
postverbal	= <i>wÁ</i>	Ventive
	= <i>ÁmÁ</i>	Completive

Table 43. Verbal particles

3.8.6.2 Strict relative **an=*

The particle **an=* indicates that an event took place before or after another event. Following Comrie (1985: 65), this particle is referred to as ‘strict relative’ as it expresses time relative to a contextual reference point without indicating where this point of reference is in relation to the present time. It has merged with the subject agreement markers (cf. §4.4.10) in all cases that occur in the data. The only complete paradigm of portmanteau morphemes is available in Gwaandama.

	Deeləmə	Guyɔma	Gwaandama
1SG.SR	?	?	<i>nán-</i>
2SG.SR	?	?	<i>màn-</i>
3SG.SR	<i>í-</i>	<i>ń-</i>	<i>án-</i>
1PL.INCL.SR	?	?	<i>kàn-</i>
1PL.EXCL.SR	?	?	<i>kán-</i>
2PL.SR	?	?	<i>kàn-</i>
3PL.SR	?	?	<i>bàn-</i>

Table 44. Subject agreement markers with the preverbal strict relative marker²⁰²

The particle may be reconstructed as **an=* in Gwaandama. For example, the particle **an=* and the subject agreement marker of 1SG *ná-* have merged into *nán*. It is likely that the anteriority particle is inherently toneless since the tones of the merged forms are the same as those of the subject agreement markers. Additional data on Deeləmə and Guyɔma may provide more insight into the underlying form of the particle.

The particle is used to form the pluperfect and it occurs in a construction that expresses temporal sequence. Two examples from Gwaandama are provided here, while additional examples can be found in §6.2.3 and §6.2.4.

- Gwaandama**
- (224) *bə* *nán-dáw=àmà* *bá-á=nà*
if 1SG.SR-save=CPL money-A=CF
- ná=nə-ɲwà=ámá* *lákárgá-w-á=ò*
PROG=1SG-buy=CPL book-W-REF=DEF
‘if I had saved enough money [before], I would have bought the book’ (Sabe 1995: 168)
- (225) *à-dv̀ná=nà* *án* *án-tó* *dzwá-b*
3SG-look=CF and 3SG.SR-tell child-B
[After pouring water on the stones], he looked at it, and then he told the youth [to not fear]’ [B-N4]

3.8.6.3 Progressive *na=*

The particle *na=* expresses a progressive notion in the past. It can be added to factative clauses in Deeləmə and Gwaandama, but only to factative clauses with singular subjects in Guyɔma (cf. §6.3.4), and, additionally, it occurs with negated imperfective clauses (cf. §6.5).

The preverbal particle does not bear inherent tone but copies it from the following subject agreement marker (cf. §2.2.2). There is no change in the ATR value of the particles, as ATR vowel harmony is progressive (cf. §2.2.5).

²⁰² Sources for Gwaandama: Sabe 1995: 168, 410f., [S-N2, B-N1].

The table below displays the progressive particle that precedes the subject agreement markers. In two instances (2SG and 3PL in Deeləmə), the agreement marker is shortened to a consonant. The tone is then indicated only on the particle. In both Gvyvma and Gwaandama, the particle and the 3SG agreement marker have merged into a portmanteau morpheme. As there are no plural forms with the progressive particle in Gvyvma, the corresponding fields in the following table are shaded in grey.

	Deeləmə	Gvyvma	Gwaandama
PROG=1SG	<i>ná=nó</i>	<i>ná=ná</i>	<i>ná=nó</i> ²⁰³
PROG=2SG	<i>nà=m</i>	<i>nà=nà</i>	<i>nà=mà</i>
PROG=3SG/PROG.3SG	<i>ná=á</i>	<i>nán/hán</i> ²⁰⁴	<i>nán</i>
PROG=1PL.INCL	<i>nà=kà</i>		<i>nà=kà</i>
PROG=1PL.EXCL	<i>ná=ká</i>		<i>ná=ká</i>
PROG=2PL	<i>ná=ká</i>		<i>nà=kà</i> ²⁰⁵
PROG=3PL	<i>nà=b</i>		<i>nà=bà</i>

Table 45. Subject agreement markers with the preverbal progressive marker²⁰⁶

At this stage, it is only possible to hypothesise about the source of the particle *na=*. The progressive is believed to have had a matrix clause with an object complement as its former underlying structure, as shown in the following figure.

Matrix clause		Object complement		
Subject agreement-	Verb	Subject agreement-	Verb	(Object)

Figure 4. Possible former structure of the progressive

The assumed underlying structure is consistent with constructions in Nvngvrama for expressing modality through lexical means. In these constructions, modal verbs take the place of the first verb (cf. §6.4). It is presumed that the verb that was replaced underwent a grammaticalisation process and became an auxiliary, although its lexical origin is not yet clear.²⁰⁷ As both subject agreement markers were identical, the first was considered obsolete and was dropped. Constructions with modal verbs exhibit such a dropping of the first subject agreement marker. The auxiliary was then attached to the following subject agreement marker and in some cases has even merged with it (3SG in Gvyvma and

²⁰³ There is one exception in [S-N1] where the agreement marker takes a low tone: *ná=nà-V*.

²⁰⁴ According to B. Newman (1978: 38), PROG.3SG is *nán* in the past and *hán* in the present. The latter “seems to have a sense of immediacy” (B. Newman 1978: 38). In another article, Newman and Newman (1974: 113) report that *hán* is only used to introduce “new characters in a narrative”. On the use of *hán* in discourse, see B. Newman (1978: 97f.).

²⁰⁵ Sabe (1995: 405) depicts these forms with high tones as *ná=ká*, but all other sources show low tones. The latter is more likely since the underlying agreement marker displays a low tone and the particle *na=* copies its tone.

²⁰⁶ Sources for Gvyvma: Newman/Newman 1974: 113, B. Newman 1978: 41 and own data. Sources for Gwaandama: Sabe 1995: 405ff., [S-N2] and own data.

²⁰⁷ Compare Tula, which has similar constructions with progressive meanings. In Tula, the auxiliary *nɔ* is used for past progressive notions (Hall 1954/1956: 159), while another auxiliary *wɛ* is used in the present progressive and can be translated as ‘to be/exist’ (Hall 1954/1956: 103).

Gwaandama). However, this hypothesis does not account for the fact that the auxiliary has no inherent tone and must therefore copy it from the following subject agreement marker. Furthermore, the split in Gyyuma remains unexplained.

§6.3.4 contains several examples of the progressive particle's usage. Therefore, only a few examples will be provided here.

Deeləmə

- (226) *ná=nə-fwár* *gúbá-l-à*
 PROG=1SG-throw stone-L-REF
 'I was throwing a stone'

Gyyuma

- (227) *ná=ná-mwəm* *swá-w-á*
 PROG=1SG-build house-W-REF

díkím *kùrù* *ju-wé* *yím-dà*
 when father.3 1SG.POSS-3 death-PP.inside
 'I was building a house when my father died'

Gwaandama

- (228) *tò* *nán-tú* *Piságin* *bá*
 so PROG.3SG-tell Pisagin COMPL
 'so he was telling Pisagin that...' [B-N4]

3.8.6.4 Ventive =wÁ

The ventive (or venitive) =wÁ is a verbal particle that indicates the direction of an action, which is a movement towards the deictic centre. According to B. Newman (1978: 33), it generally²⁰⁸

indicates the terminal position of the agent of an action. It means that the action is [sic] begun (or carried out) away from where the paragraph thematic character is located, but terminated in the area where the thematic character is located.

The following are examples of the ventive:

Deeləmə

- (229) *gíngiri-l-à* *í-yú=wá* *á* *sáká-wi-yà*
 frog-L.5-REF 5.SR-come.out=VEN SPAT jar-W-PP.inside
 'the frog came out from inside the jar'

Gyyuma

- (230) *jín* *ń-zà* *ń-tè=wé* *yúwè*
 1SG.SBJ 1SG.FUT-go.FV 1SG.FUT-stand=VEN.NPST far
 'me, I will go and stand over there' (B. Newman 1978: 34)

²⁰⁸ For a detailed analysis of its semantics, cf. B. Newman (1978: 33ff.).

- (231) *ba-ha=wa* *Banjira*
 3PL-COP=VEN Banjira
 ‘they are from Banjira²⁰⁹’ (Newman 1976: 46)

Gwaandama

- (232) *ná-dzi* *gwà:ndà*
 1SG-go Gwaanda
 ‘I went to Gwaanda/Nyuwar’

- (233) *ná-dzù=wá* *gwà:ndà*
 1SG-go=VEN Gwaanda
 ‘I came from Gwaanda/Nyuwar’

The ventive has an allomorph =*Ú*. The exact morphophonological rules of its occurrence are not yet clear, but it appears most frequently when the preceding verb ends with a consonant (excluding the trill /r/ in most cases).

Gvyoma

- (234) *à-kàs=v* *ɲúmka-w-á*
 3SG-search=VEN rope-W-REF
 ‘s/he searched for a rope elsewhere and returned to where s/he had been before s/he started searching’ (B. Newman 1978: 34)

- (235) *Ø-hà=v* *wĩĩĩ*
 3SG-COP=VEN IDEO
 ‘s/he is coming there: whoosh’²¹⁰ (B. Newman 1978: 34)

Gwaandama

- (236) *cí-b-ə* *bà-sík=ú* *dìyì*
 other-B-REF 3PL-turn=VEN up
 ‘others turned up [the hill]’ [B-N1]

- (237) *kà-gúl=ú* *yí*
 1PL.INCL-beg=VEN there
 ‘we begged [for rain] from there’ [B-N1]

- (238) *hà=ú*²¹¹
 COP=VEN
 ‘is at’ (Sabe 1995: 184)

²⁰⁹ Most likely Banjiram, a town west of the Hawal River in the Nungvra area.

²¹⁰ In B. Newman’s translation, the phrase ‘was coming’ is used. As the copula has present reference, it is translated accordingly.

²¹¹ Actually *hà-ú*, i.e. with a long first vowel, but elsewhere in Sabe (1995) it is consistently written with a short vowel.

With certain verbs, the vowel of the verb merges with the ventive, e.g.

/zà=Ú/	[zʋ]	‘to come (back)’ in Deeləmə
/bà=Ú/	[bù] ²¹²	‘to climb’ in Gvyɔma (Newman/Newman 1977b: 41, 47)
/è=Ú/	[ù]	‘to leave (in order) to come back’ in Gvyɔma (Newman/Newman 1977b: 41, 47)

In some cases, the vowel of the verb also assimilates to the verb extension, as shown in example (233) compared to (232).

In contrast to Gvyɔma and Gwaandama, the ventive in Deeləmə becomes =mɔ in aspectual future constructions (cf. §6.3.6), as the following examples illustrate.

- (239) *má-zá=mɔ* *indibá*
 2SG.FUT-go.FV=VEN when
 ‘when will you come?’
- (240) *ná-tv-ám* *nà-zá-mɔ* *mɔ=nà* *yàtàdà*
 1SG.IMP-tell-FV.2SG.OBJ 1SG.FUT-go.FV-VEN 2SG.OBJ=CF? tomorrow
 ‘I tell you I will come to you tomorrow’
- (241) *indibá* *má-zír-á=mɔ* *bál-kà=nà*
 when 2SG.FUT-bring-FV=VEN stick-KA=CF
 ‘when are you going to bring (back) the stick?’

The ventive =wÁ in Nvngvrama is similar in form and meaning to the altrilocal or distant verb extension -we/-wé in Tula and Waja. The extension “is known as Grade 6 -o [...] in the verbal morphology of Hausa” (Kleinewillinghöfer 1996b, cf. Güldemann 2018b: 120f.). In Waja, the extension refers to an action that takes place away from the location of the speech act, but that has some kind of relation to it (Kleinewillinghöfer 1991: 199).

3.8.6.5 Completive =ÀmÁ

The verbal particle =ÀmÁ is used to describe an action that has been completed thoroughly (Bybee et al. 1994: 57). It functions as a phasal polarity marker and is sometimes translated with the meaning ‘already’. It is therefore often used together with the factative.²¹³

²¹² In contrast to Deeləmə, the low tone of the verb in Gvyɔma prevails.

²¹³ For Gwaandama, Sabe (1995: 167) calls constructions with =ÀmÁ “present perfective”, but essentially means “perfect”. He explains that it “applies to the past with current relevance. It relates the past event or state to a present time orientation. Specifically, the present perfect indicates an action that has been completed, the results of which are still relevant to the present time orientation” (Sabe 1995: 167). For Gvyɔma, B. Newman (1978) describes the same construction (or rather the use of a suffix -ma) as a way of marking focus. The ‘focus marker’ draws “attention to the verbal information in three ways: as confirmation of a remark, as a signal of a scene change, and as an exclamation about an action” (B. Newman 1978: 35).

In all three varieties, the vast majority of cases display low tones on both TBUs.

Deeləmə

/wún=ÀmÁ/ [wúnəmà] ‘has boiled’

Gvyvma

/yím=ÀmÁ/ [yímàmà] ‘has died’

Gwaandama

/wàr=ÀmÁ/ [wàràmə] ‘has pulled’ (Sabe 1995: 398)²¹⁴

Two phonological rules apply to avoid a hiatus in all three varieties (cf. hiatus resolution in §2.3). Firstly, the vowel of the suffix merges with the preceding vowel of a light syllable if it is the same vowel.²¹⁵ The tone is then generally low.

Deeləmə

/zà=ÀmÁ/ [zàmà] ‘has gone/left’

Gvyvma

/zà=ÀmÁ/ [zàmà] ‘has gone/left’

Gwaandama

/tsə=ÀmÁ/ [tsəmà] ‘has urinated’ (Sabe 1995: 399)

Secondly, an approximant is inserted between the verb and the suffix when the vowels differ.

Deeləmə

/nə=ÀmÁ/ [nəwàmà] ‘has heard’

Gvyvma

/tú=ÀmÁ/ [túwàmà] ‘has said/told’

Gwaandama

/nù=ÀmÁ/ [nùwàmà] ‘has drunk’

Examples of the completive particle in clauses are illustrated below.

Deeləmə

(242) *kwàn-y-á á-ním=àmà*
 king-Y.1-REF.DEF 1-die=CPL
 ‘the king has (already) died! (he was expected to die)’²¹⁶

²¹⁴ Many more Gwaandama examples are given in Sabe (1995: e.g. 168, 395ff.), however exceptions with a high also occur, e.g. in Sabe (1995: 167).

²¹⁵ In Gwaandama, these cases are sometimes written as if the clitic does not merge with the preceding vowel, e.g. *ǰáàmà* ‘has eaten’ [S-N3].

²¹⁶ Compare:

kwàn-yá à-nàm
 king-Y 3SG-die
 ‘the king died (he is dead)’

(243) *má-m-á* *á-wún=àmà*
 water-M.9-REF.DEF 9-boil=CPL
 ‘the water has boiled’

(244) *á-bál=àmà* *wàsikà-hà* *nà-hà-kwà*
 3SG-write=CPL letter-HA.4 NUM-4-two
 ‘[when I came home] s/he had just/already written two letters’

(245) *ná-zàmà*
 1SG-go.CPL
 ‘I have left’

Guyuma

(246) *kwàndí-yá=ò* *á-yím=àmà*
 king-Y.1=DEF 1-die=CPL
 ‘the king has died’

(247) *á-zàmà*
 3SG-go.CPL
 ‘s/he has left’

(248) *to* *Ayu* *a-zv=ama*
 okay Rabbit 3SG-go.VEN=CPL

n-zv *ma-m* *mi-l-e*
 3SG.SR-go.VEN water-M body-L-REF

[Hippo and Elephant stopped here.] ‘Okay, Rabbit came here, he came to the water place.’ [He is here. He is drinking water.] (J. Newman 1978: 92)

(249) *a-zí=wa* *fí* *Li’azaru* *a-daw=ama*
 SM1-go=VEN find Lazarus SM1-put=CPL

bu-we *swa-a* *na-nir*
 grave-W house-A NUM-four

‘he [Jesus] came and found [that] Lazarus had already been in the tomb for four days’ (John 11, 17) (Wycliffe Bible Translators n.d.)

Gwaandama

(250) *ná-kúlgàmà* *bál-ká=ò*
 1SG-bend.CPL stick-KA=DEF
 ‘I have bent the stick’ (Sabe 1995: 399)

(251) *gáhǎ-b-á* *bá-yàmà*
 woman-B-REF 3PL-go.out.CPL
 ‘the women have gone out’ [B-N4]

(252) *bilí-w-ə* *nú* *tan=àmà*
 cow-W-REF 1SG.POSS loose=CPL
 ‘my cow has been lost’ (Sabe 1995: 167)

(253) *à-dáw=àmà* *dù-m-ə*
 3SG-sleep=CPL sleep-M-REF
 ‘s/he has slept (just before X happened)’ [S-N2]

The second vowel of the particle is dropped in *Guyuma*, while it is reduced to schwa in *Deeləmə* and *Gwaandama* when followed by another lexeme. This reduction is a regular process and is therefore not shown in the examples, except for a few exemplary cases below. For details on this process, cf. §2.3.5.

Deeləmə

(254) *á-móm=àmə* *fwá-w-à*
 3SG-build=CPL house-W-REF
 ‘s/he has (already) built a house’

Guyuma

(255) *ná-mwóm=àm* *swá-w-à*
 1SG-build=CPL house-W-REF
 ‘I have (already) built a house’

Gwaandama

(256) *nə-wàr=àmə* *dí-ká=è*
 1SG-pull=CPL rope-KA=DEF
 ‘I have pulled the rope’ (Sabe 1995: 398)

In *Guyuma*, the tone of the verb stem (mostly?) matches that of the subject agreement marker preceding it (compare examples (257) and (258)), except when the completive marker merges with the vowel of the verb, as shown in example (247).²¹⁷

Guyuma

(257) *ná-wúr=əm* *sún-é=ù*
 1SG-cook=CPL tuwo-A=DEF
 ‘I have cooked tuwo [it is finished]’²¹⁸

(258) *bà-wùr=əm* *sún-é=ù*
 3PL-cook=CPL tuwo-A=DEF
 ‘they have cooked tuwo [it is finished]’

The tone of the second vowel of the particle is sometimes noted as high in *Gwaandama*. This could be due to regressive tonal dissimilation (cf. §2.2), which requires two circumstances to coincide: another lexical item must follow the verb, and the first TBU

²¹⁷ It is possible that this is a case of tone spreading, but it is too early to draw any conclusions due to the numerous exceptions present in the data.

²¹⁸ For this example and the following one, I was also given another clause containing the verb ‘to finish’. This clause is preferred over the ones with the verbal particle.

of the following lexeme must be low.²¹⁹ Apart from that, the tone rules in Gwaandama are still unclear.

Gwaandama

- (259) *ná-ból=ámá* *áfá.ná-w-á*
 1SG-strike=CPL match-W-REF
 ‘I have struck a match’ (Sabe 1995: 395, 397)
- (260) *ná-tsámá* *tsàtsà-m-à*
 1SG-urinate.CPL urine-M-REF
 ‘I have urinated’ (Sabe 1995: 399)
- (261) *yátári* *bà* *nìtìn* *nà* *kús-kà*
 tomorrow time eight INSTR? morning-KA
- dì* *ná-yówámá* *nì* *híntír-á=jí*
 if 1SG.FUT-COP.FUT.CPL thing.A teach-FV=PP.inside
 ‘if it is eight o’clock in the morning I shall have been teaching’ (lit. ...I shall have completed teaching) (Sabe 1989: 120)

Similar to the verbal particle in Nɔngɔrama, a suffix *-m* (or *-mà* or *-ama*) occurs in some languages of the Tula-Waja language group, such as Dadiya, Cham and Awak (but not Waja, which is spoken adjacent to Nɔngɔrama, nor Tula). This suffix is analysed as a perfect marker as it expresses completeness (Kleinewillinghöfer, p.c.).

3.8.7 Interrogative particles

In Nɔngɔrama, interrogative particles need to be differentiated from interrogative proforms (cf. §3.6.6). Interrogative particles are invariable and can be clefted, while interrogative proforms show agreement marking and occur in the place of the modifier being asked about. They are therefore discussed separately.

Interrogative particles can be divided into two groups. The first group contains particles used in content questions. The second group is used to distinguish polar questions (yes/no questions) and tag questions (translated as ‘isn’t it?’, ‘don’t you?’ etc. in English) from declarative clauses. The following table summarised the particles. The data on some other interrogative particles is scarce, as indicated by the question marks in some fields as well as the multiple forms in other fields.

²¹⁹ However, this does not always hold true. I hypothesise that when the tone is not high, it may be due to the following noun not being a ‘normal’ object, i.e. it is either part of a reflexive construction (e.g. ‘to wash oneself’) or part of a semantically intransitive verb that requires an object (e.g. ‘to sleep a sleep’ (example (253))).

	Deeləmə	Gyɔɔma	Gwaandama
Particles in content questions			
‘who?’	<i>wà</i>	<i>wà</i>	<i>wà / wə / wɪ</i> ²²⁰
‘what?’	<i>bánà</i>	<i>bà / bì</i>	<i>bà(áni)</i>
‘where?’	<i>yà</i>	<i>yà</i>	<i>yà</i> (also: <i>yí</i> or <i>yí</i>)
‘when?’	<i>ìndibá</i>	<i>ìndibá</i> ²²¹ / <i>ìndina</i>	? ²²²
‘how?’	<i>áná</i>	<i>áni / ana / indimana / inemenii</i>	<i>indəməni</i>
‘why?’	<i>bàzí</i>	<i>bazí / zìndìbìbà / zìndìbìbii / ìndina</i>	<i>hàbìbí</i>
Particles in polar and tag questions			
polar interrogative	<i>wá</i>	<i>wɪ</i> ²²³ / <i>ní</i>	<i>wí / nə</i>
interrogative tag ²²⁴	<i>déy</i>	?	<i>déy</i> ²²⁵
	?	?	<i>híngá</i> ²²⁶ / <i>hàgîn</i> <i>dúkùn gá wí /</i> <i>hàgí nə dúkù gá</i>

Table 46. Interrogative particles²²⁷

For examples on interrogative particles in content questions, cf. §7.2.4.2, and for those in polar and tag questions, cf. §7.2.4.3.

3.8.8 Negation particles

Negation in Nɔngvɔrama is indicated by a negation clitic in intransitive clauses and a discontinuous particle in transitive clauses. The particles in the three varieties differ slightly in tone and whether or not they are clitics (and are therefore subject to the ATR vowel harmony). The first negation morpheme of the discontinuous particle in a transitive clause is a free morpheme in Deeləmə and Gwaandama (*gá*) and a clitic in Gyɔɔma (= *gÁ*),

²²⁰ Perhaps borrowed from Hausa *wà*.

²²¹ According to B. Newman (1976: 57), the interrogative *ìndibá* ‘when’ is a phrase that can be translated as ‘at when’.

²²² In [WL-N1] it is *kàsàlè*. However, there is no example clause in the data.

²²³ *wɪ* in Newman/Newman (1977b: 25), where “the high – low glide is marked by length”. In my analysis, the particle does not exhibit a falling tone but rather a high tone which coincides with a falling intonation, sometimes causing the vowel to be lengthened.

²²⁴ The Gwaandama tags are mostly whole phrases.

²²⁵ This interrogative tag only occurs in [B-N1]. However, the notation differs in the source: *deī*, *dēi*, *dēi* and even *dāī*. In accordance with the syllable structure as outlined in §2.2.5, the notation *déy* is employed in this thesis.

²²⁶ Actually *híngá*, but the falling tone is probably a combination of a high tone and falling intonation.

²²⁷ Sources for Gyɔɔma: B. Newman 1976: 57, Newman/Newman 1977b: 25, Wycliffe Bible Translators n.d. and own data. Sources for Gwaandama: Hiraki 1986: 131, Sabe 1995: 263f., 274, [WL-N1] and own data.

following or attaching to the first verb of the clause.²²⁸ The second morpheme of the discontinuous particle in a transitive clause and the particle in an intransitive clause are always clitics that attach to the last element of the clause, irrespective of its parts-of-speech class. This includes adverbs, adverbial phrases and oblique objects. The only exceptions are an optional interrogative marker and the conditional clause marker ‘if’).

The tones of the clitics in Gvɔvɔma are not consistent. In intransitive clauses, the tone of the first morpheme is often high, while the second morpheme in transitive clauses and the only morpheme in intransitive clauses is mostly high in B. Newman’s data (when marked, e.g. 1976, 1978) but low in my own data. Negative particles are exemplified in §6.5 and throughout this thesis.

	Deeləmɔ	Gvɔvɔma	Gwaandama
intransitive	=g ^h A	=g ^h A	=g ^h A
transitive	g ^h ɔ ... =g ^h A	=g ^h A ... =g ^h A	g ^h ɔ ... =g ^h A

Table 47. Negation particles

3.8.9 Clause-final marker

In many clauses in the Nvngvɔrama data, a particle =n^hA²²⁹ occurs clause-final, with the exception of the negative particle that it precedes. The vowel of the particle tends to be fronted to n^hl when following a syllable with another high front vowel. The use of the particle is necessary in content questions when the interrogative word is not word-final (cf. §7.2.4.2), in counterfactual conditionals occurring in Gwaandama (cf. §7.4.4.3) and in subordinate relative clauses in Deeləmɔ and Gwaandama (cf. §5.4.3), but otherwise its presence or absence cannot yet be determined.

As the particle’s functional range is currently unclear, it is provisionally referred to as a ‘clause-final marker’ (CF) based on its most common position. It may have derived from the lexeme for ‘hand, arm’ *naka*²³⁰ and could be similar to *nā*~*nāw* in Samba-Duru, a marker with a similar form as discussed in Fabre (2020). According to Fabre (2020: 246f.), this polyfunctional morpheme can be, for example, a postposition or an expressive particle conveying the idea of control, and can be translated as ‘in hand’.

²²⁸ Anderson (2016: 521) states that “split negative marking” is often “encoded on a lexical verb”, while “other obligatory categories are on the auxiliary”.

²²⁹ There are a few exceptions where the vowel of the clause-final marker does not change according to the ATR harmony of the preceding lexeme. In such cases, the spelling of the sources is maintained.

²³⁰ The tones differ in the varieties: *nákà* in Deeləmɔ, *nàkà* in Gvɔvɔma, *náká* in Gwaandama.

4. Deriflection and gender of nouns

4.1 Theoretical framework

All four of the major phyla of Africa mark gender in some way, ranging from the relatively straightforward two-gender systems of Afro-Asiatic and Nilo-Saharan to the rather more complicated multi-gendered systems of Niger-Congo [...], whose workings are deeply involved in the morphosyntax. Within the Africanist literature, the latter are generally called “noun class” systems. A noun class system will consist of a complete division of all nouns in the language into a number of classes. (Childs 2003: 99)

Nʊngvɔrɔmɔ has such a “noun class system”. One of the earliest mention of this system was by Jungraithmayr (1968/1969). The most detailed analysis of the gender system in Nʊngvɔrɔmɔ to date, focusing on Gʊyɔmɔ, was published by Elstermann, Fiedler and Güldemann (2021). The following chapters will provide a description of the varieties in Deelɔmɔ, Gʊyɔmɔ and Gwaandama with brief references to Kɔlɔmɔ and Cɛrɪmɔ in some cases to support the analyses.

The term ‘noun classes’ is used in quotation marks here because the discussion below follows the framework of Güldemann and Fiedler (2019). They differentiate *nominal form classes* and *agreement classes* instead of using the term “noun class”. This is because “the philological ‘noun class’ notion inadequately implies the universality of a one-to-one trigger-target mapping, thereby silently conflating the categories of agreement class and nominal form class that are in principle independent” (Güldemann/Fiedler 2019: 104). This conflation would lead to “a major problem in the analysis of Niger-Congo gender systems” in their view (Güldemann/Fiedler 2019: 103).

According to Elstermann et al. (2021: 327), Nʊngvɔrɔmɔ exemplifies “a traditional Niger-Congo ‘noun-class’ system”. Therefore, differentiating between NF classes and AGR classes may not be necessary. However, a few exceptions do occur in Nʊngvɔrɔmɔ (cf. e.g. NF class R and A in §4.2.4 and §4.2.5 respectively), which can be better illustrated using the framework of Güldemann and Fiedler. For a comparable and typologically consistent analysis, it is recommended to avoid the Bantu-biased approach traditionally used, as proposed by Güldemann and Fiedler.

The framework employs four distinct concepts to elucidate gender which will be introduced here briefly (for more details cf. Güldemann and Fiedler (2019: 97ff.)): *nominal form classes*, *agreement classes*, *gender* and *deriflection* – a novel term that combines ‘inflection’ and ‘derivation’. Nominal form (NF) classes are “word forms with identical morphological or phonological properties” (Güldemann/Fiedler 2019: 99), i.e. they are a set of nouns with the same marker, either a prefix or a suffix. An agreement (AGR) class consists of nouns that show the same agreement marking on all targets, even if they belong to different NF classes. Gender or gender classes “are derived by abstracting from all other agreement features” (Güldemann/Fiedler 2019: 98), most often number. Therefore, in many cases, a gender is composed of a singular and a plural agreement class. Deriflection “is the morpho(phono)logical counterpart of genders” (Güldemann/Fiedler 2019: 99), i.e. it forms sets of NF classes, e.g. in terms of a

singular/plural pairing. Deriflection also occurs in nominalisation where nouns are derived from verbs or adjectives by adding an NF suffix. In the case of transnumerals, agreement class and gender as well as NF class and deriflection are the same. Transnumerals are “nouns that do not partake in the normal number oppositions of a language” (Güldemann/Fiedler 2019: 98, footnote 3), such as mass nouns, liquids or abstract nouns.

The table below, adapted and shortened from Güldemann and Fiedler (2019: 100), shows the interrelations among the four concepts:

	Concrete noun in a morpho-syntactic context = word form	Abstract noun in the lexicon = lexeme
Syntax	Agreement class	Gender
Morpho(phono)logy	Nominal form class	Deriflection

Table 48. The four concepts used for analysing gender (adapted from Güldemann & Fiedler 2019: 100)

4.2 Nominal form classes and deriflection system

4.2.1 Overview of the nominal form classes

The table below provides an overview of the NF classes in Nvngvrama and their usage as singulars, plurals or transnumerals. Examples for the three varieties will be given in the subchapters below where each NF class is described in more detail. The order of NF classes follows previous publications and talks (e.g. Kleinwillinghöfer/Vigeland 2016, Vigeland 2020a, Elstermann et al. 2021).

In all three varieties, the NF class suffixes have either the shape C or CV, with one exception in Gvvyvma and Gwaandama (cf. NF class A in §4.2.10). The vowels in NF class suffixes fall within the domain of the ATR harmony of the respective noun stem. The two forms that can arise in each case are separated by a slash. Unlike in Deeləmə and Gvvyvma, the suffixes in Gwaandama do not have an inherent tone and instead copy the tone from the preceding TBU.

NF class	Allomorphs			Number
	Deeləmə	Gvvyvma	Gwaandama	
Ø	Ø	Ø	Ø	SG
Y	-y	-y	-y	SG
R	-r	-r	-r	SG
F	-à	-	-	SG
B	-b	-b	-b	PL
W	-w -à / -ə	-w	-w	SG, TN?
HA	-hà / -hə	-hà / -hè	-ha / -hə	PL, TN?
L	-l	-l -d	-l	SG, TN
A	-‘à / -‘ə	-à / -è	-a / -ə	PL

KA	<i>-kà / -kə</i>	<i>-kà / -kè</i>	<i>-ka / -kə</i>	SG
TA	<i>-tà / -tə</i>	<i>-tà / -tè</i>	<i>-ta / -tə</i>	PL, TN
M	<i>-m</i>	<i>-m</i>	<i>-m</i>	PL, TN

Table 49. Nominal form classes

The citation form of nouns is the noun root with an NF class suffix and the referential suffix *-A* (cf. §3.2.2 for other contexts in which the suffix occurs). The latter is added to NF class suffixes of the shape C, but merges with suffixes of the shape CV.²³¹ The table below shows the underlying and surface structure of NF class suffixes and the referential marker. Note that the capital letter A represents the [-ATR] vowel /a/ or the [+ATR] vowel /ə/ (in Deeləmə and Gwaandama) or /e/ (in Gvyyuma) and that the referential suffix in Gwaandama does not have an underlying tone but copies it from the preceding TBU. In Gvyyuma, the referential suffix can be nasalised in certain NF classes due to a phonological process (cf. §2.1.3.5).

NF class	Referential marker	Deeləmə	Gvyyuma	Gwaandama
underlying structure		surface structure		
Ø	-À (Deeləmə) -Á (Gvyyuma) -A (Gwaandama)	<i>-Ø</i>	<i>-Ø</i>	<i>-Ø</i>
Y		<i>-y-À</i>	<i>-y-Á / -y-Á̃</i>	<i>-y-A</i>
R		<i>-r-À</i>	<i>-r-Á</i>	<i>-r-A</i>
F		<i>-À</i>	-	-
B		<i>-b-À</i>	<i>-b-Á</i>	<i>-b-A</i>
W		<i>-w-À</i>	<i>-w-Á / -w-Á̃</i>	<i>-w-A</i>
HA		<i>-hÀ</i>	<i>-hÁ / -hÁ̃</i>	<i>-hA</i>
L		<i>-l-À</i>	<i>-l-Á</i> <i>-d-Á</i>	<i>-l-A</i>
A		<i>-ʔÀ</i>	<i>-Á / -Á̃</i>	<i>-A</i>
KA		<i>-kÀ</i>	<i>-kÁ</i>	<i>-kA</i>
TA		<i>-tÀ</i>	<i>-tÁ</i>	<i>-tA</i>
M		<i>-m-À</i>	<i>-m-Á</i>	<i>-m-A</i>

Table 50. Nominal form classes and referential marker

The following examples on the left-hand side illustrate cases where the NF class suffix and the referential suffix are consecutive, while examples on the right-hand side demonstrate that some NF class suffixes merge with the referential suffix (for more examples, cf. §3.2.2).

²³¹ In contrast to the present study, Elstermann et al. (2021: 331) describe two NF suffix variants: the T-form (Thematic-form), which is roughly analogous to the NF class suffixes as illustrated in Table 49, and the A-form (Vowel-form), which corresponds to the NF class suffixes in conjunction with the referential marker.

	Deeləmə		
(260)	<i>yí-b-ə</i> person-B-REF 'people'		<i>tʃítʃí-hə</i> small.stick-HA.REF 'small sticks'
	Gvyuma		
(261)	<i>dúrí-w-é</i> spirit-W-REF 'spirit'		<i>díbà-ká</i> shirt-KA.REF 'shirt'
	Gwaandama		
(262)	<i>dwà-m-à</i> water-M-REF 'water'		<i>dzi-tà</i> snake-TA.REF 'snakes'

The shape of the NF class suffixes is observable when the referential marker is absent. This is mainly the case in noun phrases with attributes (examples (263) to (268)), but never in non-verbal clauses with adjectival predicates (examples (269) and (270)) (cf. Newman and Newman 1977b: 60).

	Deeləmə		
(263)	<i>yì-r</i> man-R.1 'a kind man'	<i>fírá-yà</i> kind-1	
(264)	<i>zwá-b</i> child-B.2 'new children'	<i>sí-bà</i> new-2	
	Gvyuma		
(265)	<i>zí-kà</i> town-KA.7 'our town'	<i>mìr-ká</i> 1PL.INCL.POSS-7	
(266)	<i>yí-m</i> milk-M.9 'our milk'	<i>mìr-má</i> 1PL.INCL.POSS-9	
	Gwaandama		
(267)	<i>tsú-l</i> heart-L.5 'a big heart'	<i>mwárá-lá</i> big-5	
(268)	<i>wá-y</i> father-Y 'my fathers'	<i>ɲó</i> 1SG.POSS	
(269)	<i>wá-y-á</i> father-Y.1-REF 'the father is friendly' [S-N3]	<i>há</i> COP	<i>fírá-yà=ò</i> friendly-1=DEF

- (270) *wá-b-á* *ba-hà* *firà-bà=ò*
 father-B.2-REF 2-COP friendly-2=DEF
 ‘the fathers are friendly’ [S-N3]

However, not all noun phrases with attributes include the NF class marker. The presence or absence of the NF class suffix depends on the shape of the noun root. The NF class suffix is omitted with almost all monosyllabic noun roots of the syllable structures CVC (example (271)) and C \tilde{V} (example (273)) and all polysyllabic noun roots (example (272)).

Deelòmə

- (271) *bál* *sí-kà*
 stick.7 new-7
 ‘a new stick’

Gvyvma

- (272) *túkúrí* *fâr-wà*
 hat.3 red-3
 ‘a red hat’

Gwaandama

- (273) *dzwí* *fvrá-yá*
 child.1 good-1
 ‘a good child’ (Hiraki 1986: 122), [S-N1]

The NF class suffix prevails with monosyllabic noun roots of the syllable structure CV. In such cases, the shape of the NF class suffix becomes evident. The suffixes of NF classes Y, R, B, W, L and M have the shape C. It is not a coincidence that the consonants of these classes can occur syllable-final in Nvngvrama (cf. §2.3.4 and Newman/Newman 1977b: 60).²³²

Deelòmə

- (274) *jí-m* *filè*
 milk-M small
 ‘small amount of milk’

- (275) *fwá-w* *swí-wà*
 house-W.3 black-3
 ‘a black house’

Gvyvma

- (276) *jí-r* *sú-yá*
 man-R.1 new-1
 ‘a new man’

²³² Exceptions include *pólà* ‘thigh’ in Deelòmə as well as *nv̀l̀à* ‘eye’ and *dwàmà* ‘water’ in Gwaandama, which drop the suffix in a noun phrase, and *lúmá* ‘oil’ in Gwaandama in which the shape of the suffix is CV.

- (277) *mwàrì-y* *ní-yé*
 brother-Y.1 1SG.POSS-1
 ‘my older brother’

Gwaandama

- (278) *tsó-l* *fàrà-lá*
 heart-L.5 red-5
 ‘a red heart’

- (279) *ná-†hà=nì* *dzwá-b* *nà-b-nír*
 1SG.IMP-COP=COM child-B.2 NUM-2-four
 ‘I have four children’ (Hiraki 1986: 58), [S-N1]

The suffixes of NF classes KA and TA exhibit a CV structure. It is assumed that this is also the case for NF class HA, as the phoneme /h/, like /k/ and /t/, cannot occur syllable-finally. However, no examples of suffixes for class HA are available in the data.²³³ Below are examples of suffixes for classes KA and TA:

Deelòmə

- (280) *dí-kà* *fár-kà*
 shirt-KA.7 red-7
 ‘a red shirt’

Gvyvma

- (281) *zí-kà* *yì-ké*
 town-KA.7 3SG.POSS-7
 ‘his/her town’

Gwaandama

- (282) *dí-tá* *tá-bì* *hà* *sù-tà*
 shirt-TA.8 8-DEM1 COP new-8
 ‘these shirts are new’

NF class A is unique among the classes as it consists solely of a vowel. Furthermore, the three varieties differ in whether the suffix is retained or dropped in noun phrases with attributes. Deelòmə appears to exhibit free variation (indicated by brackets in example (283)). In Gvyvma, the presence or absence of the NF class suffix seems to depend on the lexeme. For instance, *pàá* ‘thighs’ drops the suffix (example (284)), while *náá* ‘hands’ retains it (example (285)). Further investigation is required to confirm whether the presence or absence of the suffix in Gwaandama depends on the attribute, as suggested by the data (compare examples (286) and (287)).

Deelòmə

- (283) *ná(-à)* *à-m=nà*
 thing(-A.6) 6-DEM=CF
 ‘that thing(s)’

²³³ In fact, there are very few noun roots with the shape CV that take the NF class suffix HA.

- Gvɔvɔma**
- (284) *pɔ̀* *nà-á-sìr*
 thigh.6 NUM-6-two
 ‘two thighs’
- (285) *ná-à* *mìr-á*
 hand-A.6 1PL.POSS-6
 ‘our hands’
- Gwaandama**
- (286) *nì* *nà-à-tsír*
 thing.6 NUM-6-two
 ‘two things’
- (287) *nì-á* *á-ɲú*
 thing-A.6 6-1SG.POSS
 ‘my thing(s)’

The NF class suffixes show similarities to the reconstructed “noun classes” of Proto-Niger-Congo. However, while the NF classes reconstructed for Proto-Niger-Congo are prefixes, Nvngvɔrama evidently uses suffixes to mark its classes. This leads Elstermann et al. (2021: 339) to conclude regarding Nvngvɔrama: “There is no evidence of noun prefixes and thus no reason to postulate their previous existence other than the conventional but questionable historical-comparative hypothesis that they were lost without traces”. However, although suffixes do occur on nouns, agreement in Nvngvɔrama is partly marked by prefixes (cf. §4.2.15). Greenberg (1963: 10, cf. Westermann 1935) already noted other morphological and semantic similarities with languages that have NF class prefixes. For example, Greenberg sees resemblances with the *ko*-class, which is primarily used for body parts, the *ba*-class, which functions as a plural class for humans, and the *ma*-class, which refers to mass nouns. These classes are all part of the Niger-Congo system. However, other cases are less straightforward. Some classes may have merged, resulting in unexpected outcomes, as Childs (2003: 144) notes: “As a noun system decays or collapses, distinctions are lost, classes are syncretized with some surprising results”.²³⁴ Some possible syncretised NF classes have been proposed in a talk by Kleinewillinghöfer and Vigeland (2016). Elstermann et al. (2021: 342ff.) provide a detailed discussion of one case, the NF class KA. The reasons for the decline of the classes are manifold but they are not the focus of this thesis. However, occasionally, possible links with NF classes in other languages are mentioned in §4.2.3 to 4.2.13.

The upcoming subchapters (§4.2.2 to §4.2.13) will introduce the nominal form classes in Nvngvɔrama one by one. The structure of the chapters will consistently follow the same pattern: first, a description of the semantics (if and to the extent to which it is discernible), then examples to illustrate the form and function of the class, followed by possible

²³⁴ It is noticeable that both the gender and deriflection classes in Nvngvɔrama are uniform with few deviations or exceptions, suggesting that the NF classes in Nvngvɔrama have been rebuilt or restructured along the agreement morphemes.

allomorphs of the NF class suffix. Although this dissertation only discusses three of the five Nvngvrama varieties, data from Kolama and Cerīma are occasionally and exceptionally used in this chapter. This is because there are wordlists available for these two varieties that help to clarify or explain some of the phenomena described in the following chapters. The subchapters will conclude with a brief comparison with other languages if sustainable evidence can be obtained. The last two subchapters provide an overview of how loanwords are integrated into the NF classes in Nvngvrama (§4.2.15) and summarise the deriflection classes, which are combinations of NF classes that are possible in Nvngvrama (§4.2.14).

4.2.2 Nominal form class Ø

This NF class consists of proper names and toponyms, which are singular nouns without a plural counterpart. Examples of proper names include *Duniba*, *Frama*, *Sabsab*, *Wakajir*, *Musa* and *Kallahi*. Examples of place names include *Lokoro*, *Banjira*, *Dangir* and *Tamza* (Institute of Linguistics 1975, Newman 1976: 44, [B-N1] and own data, all written as they occur in the sources). Note that kinship group terms occur in other NF classes.

It is often the case that loanwords in other languages with NF classes are automatically integrated into a NF class with a zero morpheme (cf. e.g. Miede et al. 2012: 13). However, this is not the case in Nvngvrama, where all loanwords are marked with an overt NF class suffix (cf. §4.2.15). It is also possible that this indicates that proper names and place names do not belong to the deriflection system. However, they are seen as part of the gender system as they require agreement marking on attributes.

4.2.3 Nominal form class Y

This NF class includes lexemes for human beings and kinship terms with a singular meaning.

Deeləmə

<i>délé-y-à</i>	‘Deeləmə person’
<i>zwá-y-à</i>	‘child’
<i>mwári-y-à</i>	‘older sibling’
<i>zwí-y-à</i>	‘younger sibling’
<i>bwáli-y-à</i>	‘man, male, husband’

Gryvma

<i>zwí-y-é</i>	‘child’
<i>mwàrì-y-á</i>	‘older sibling’
<i>zwí-y-á</i>	‘younger sibling’
<i>zwàlì-y-á</i>	‘man, male, husband’

Gwaandama

<i>dzwí-y-á</i>	‘child’ [WL-N1]
<i>mwár-y-á</i>	‘older sibling’ [WL-N1]
<i>tsírà-y-à</i>	‘younger sibling’ [WL-N1]
<i>wàrà-y-à</i>	‘man, male, husband’ [WL-N1]

This NF class also includes names that refer to a paternal kinship group (cf. §1.2.4 on paternal and maternal kinship groups) or a person belonging to that group, as described in [B-N1]. Examples of such names, e.g. in Gwaandama, are *Bḡyàmyà*, *Bḡdzḡyá*, *Bḡtsḡmyá* and *Bḡkḡháyá*.

4.2.4 Nominal form class R

The NF class R exclusively appears with the lexeme for ‘person’ in all three varieties.

Deeləmə

<i>yí-r-ə</i>	‘person, man’
---------------	---------------

Gvyvma

<i>yì-r-é</i> (also <i>ji-r-é</i>)	‘person, man’
-------------------------------------	---------------

Gwaandama

<i>yì-r-ə</i>	‘person, man’ [WL-N1]
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Evidence suggests that the suffix *-r* may be an allomorph of NF class Y, as NF class R resembles its semantics and forms a deriflection class with NF class B (cf. §4.2.14). Additionally, it occurs with agreement class 1, as is the case with NF class Y (cf. §4.3.3). Furthermore, the noun root *yi* in Nvngvrama is similar to that of other ‘Adamawa’ languages, such as Ləŋto *yí* or Waja *nè* and Tso *nè*, the latter two having an initial nasal sound, and West Oti-Volta languages (abbreviated OV in the examples below) for which the root for ‘person, someone’ was reconstructed as **ni/*ni*²³⁵ (Miehe 2012b: 393) (compare with Gvyvma that has free variation of [y] and [ɲ]). These noun roots often have a suffix that contains /r/ in the singular form as illustrated by the following examples. This could suggest that the suffix *-r* may be an old heritage belonging to NF class Y in Tula-Waja languages and beyond. Note that the tones on both the root and the suffix differ. This is, however, also the case within the three varieties of Nvngvrama.

Waja	<i>nè-rè</i>	‘person’ (Kleinewillinghöfer 1991: 88, 115)
Tso	<i>nè-r</i>	‘person’ (Kleinewillinghöfer 1995/2014)
Maa/Kamo	<i>də-ré</i>	‘person’ (Kleinewillinghöfer 1995/2014)
Birifor (OV)	<i>ní-ré</i>	‘person, someone’ (Miehe 2012b: 393)

Other ‘Adamawa’ languages, such as Dadiya (Tula-Waja) and Ləŋto (Samba-Duru), have a similar noun root but exhibit a suffix *-l* instead of *-r*. This is again similar to Oti-Volta

²³⁵ However, in other cases, /r/ is part of the noun root, which leads Miehe (2012: 392) to suggest an alternative reconstruction **nId-* in the Western Oti-Volta branch. Cf. Miehe 2012a: 355, footnote 16.

languages for which Bakpa and Roncador (2012a: 428) state that “the word for person contains in the singular an alveolar consonant *d* or *l*, which disappears in the plural form”.

Dadiya	<i>nəl</i>	<i>nəb</i>	‘person, human being’ (Kleinewillinghöfer p.c.)
Lɔŋto	<i>yíigélɔ</i>	<i>négebó</i>	‘woman, wife’ (Kleinewillinghöfer 2012: 63)
Dye (OV)	<i>ūnèl</i>	<i>bīnèb</i>	‘human being’ (Bakpa/von Roncador 2012a: 428)
Moba (OV)	<i>nìl</i>	<i>nìib</i>	‘man, person’ (Bakpa/von Roncador 2012b: 489)
Ncam (OV)	<i>ūnìl</i>	<i>bīnìbī</i>	‘human being’ (Winkelmann 2012: 511)

Despite the evidence shown above and in §4.2.14 below, the suffix *-r* is defined here as a separate NF class. This is in accordance with the framework of Güldemann and Fiedler (2019: 99) where NF classes “are established [...] by word forms with identical morphological or phonological properties”. As no phonological rule could be established, it is not justifiable to subsume *-r* as an allomorph under NF class Y. For example, other lexical roots that are morphophonologically similar (e.g. number of syllables, ending with /i, ɪ/, etc.) combine with the suffix *-y*, as the examples in Gwaandama illustrate: *ǰí-yè* ‘father’s sister’, *wá-yá* ‘father’, *dzwámí-yá* ‘daughter’, *címí-yà* ‘friend’ (all in [WL-N1]).

4.2.5 Nominal form class F

Nominal form class F is a unique case as it only appears in Deeləmə (and Cerīma and Kɔlama). It is not the same as NF class A described in §4.2.10 below as there is no glottal stop before the vowel. To avoid confusion with NF class A, I deviate from the usual practice of naming NF classes after their most common form and instead refer to this class as NF class F (from the only lexeme belonging to this class: ‘female’).

Deeləmə

yír-à ‘woman, female, wife’

Cerīma

yír-á ‘woman, female, wife’ (Kleinewillinghöfer 1994/2014), [WL-L1]

Kɔlama

yír-e ‘woman, female, wife’ (Kleinewillinghöfer 1994/2014), [WL-L1]

As with NF class R, there is evidence that NF class F may belong to NF class Y due to their semantic congruence, their formation of a deriflection class with NF class B (cf. §4.2.14) and their agreement with class 1 (cf. §4.3.3). The noun roots in Gvyɔma and Gwaandama differ from Deeləmə but clearly belong to NF class Y: *má-yá* and *gíhí-yá* respectively [WL-G2, WL-N1]. The different nominal roots in the varieties may be explained by the language taboo, where lexemes are exchanged but still belong to the same NF class in many cases (cf. §1.2.5). Similarly, the neighbouring language Waja has a comparable noun root and NF class suffix that clearly belongs to the ‘human’ NF class: *nùr-è* (Kleinewillinghöfer 1991: 118). This suggests that the lexemes in Deeləmə and in Waja may have a common origin and that NF class F in Deeləmə could indeed be part of NF class Y. However, since the suffix is not a phonologically determined allomorph, it is considered its own NF class, following the framework of Güldemann and Fiedler (2019).

4.2.6 Nominal form class *B*

This NF class consists of plural lexemes referring to human beings and kinship terms.

Deeləmə

<i>yí-b-à</i>	‘people’
<i>zwá-b-à</i>	‘children’
<i>zwí-b-à</i>	‘younger siblings’
<i>yír-b-à</i>	‘women, females, wives’

Gvɔvɔma

<i>ni-b-é</i>	‘people’
<i>zwá-b-á</i>	‘children’
<i>mwàrì-b-á</i>	‘older siblings’
<i>zwàl-b-á</i>	‘men, males, husbands’

Gwaandama

<i>dzwí-b-á</i>	‘children’ [WL-N1]
<i>mwár-b-á</i>	‘older siblings’ [WL-N1]
<i>tsírà-b-à</i>	‘younger siblings’ [WL-N1]
<i>wàrà-b-à</i>	‘men, males, husbands’ [WL-N1]

In contrast to NF class *Y*, the shape of the NF class *B* is similar in many Niger-Congo noun class languages and is often reconstructed as **ba* for different branches of Niger-Congo languages (cf. Kleinewillinghöfer 2024: 8 for the Gəmmə languages (part of ‘Adamawa’), Miehe et al. 2012: 13 for Gur and Katamba 2014: 104 for Bantu, to name but three examples). A class with the form *-bU* is found in Tula-Waja languages spoken next to Nvngvɔrama (Kleinewillinghöfer 1991, 1996b: 29). The NF class suffix “is related to a widespread third person plural in Niger-Congo languages” (Blench 2020a: 173), as is the case for Nvngvɔrama where the pronoun has a similar shape as the noun class suffix.

4.2.7 Nominal form class *W*

NF class *W* comprises numerous singular lexemes and possibly a few transnumerals (cf. §4.2.14). Its semantics is less clear than that of NF class *Y*. It includes lexemes for animals, some human beings, body parts and natural objects (cf. Jungrraithmayr 1968/1969: 164). In addition, loanwords (including nouns denoting people) are frequently assigned to this class (cf. §4.2.15).

Deeləmə

<i>bəlí-w-à</i>	‘cow’
<i>kúrí-w-à</i>	‘father’
<i>sakakun-w-a</i>	‘elbow’ [WL-D1]
<i>tágá-w-à</i>	‘window’ (from Hausa <i>tāgā</i>)

Gyuma

<i>bàlǐ-w-é</i>	‘cow’
<i>kùrù-w-é</i>	‘father’
<i>swàmbírà-w-á</i>	‘devil’
<i>zwaná-w-á</i>	‘finger’ [WL-G1]

Gwaandama

<i>twàhà-w-à</i>	‘owl’ [WL-N1]
<i>kúkúr-w-á</i>	‘finger’ (Hiraki 1986: 53)
<i>jóró-w-á</i>	‘time’ [WL-N1]
<i>kólbá-w-á</i>	‘bottle’ [WL-N1] (from Hausa <i>kwabā</i>)

This NF class also contains all maternal kinship group names as described in [B-N1]. The following example illustrates this.

Gwaandama				
(288)	<i>í kwàn-tà</i>	<i>bá-cíbkǐ-dír</i>	<i>nà</i>	<i>jóúyòù-w-à</i>
	then maternal.kinship-TA	3PL-separate-RLT	COORD	Joujou-W-REF
	<i>wálù-w-à</i>	<i>lǐ-w-à</i>	<i>nà</i>	<i>cí-ě</i>
	Walu-W-REF	Lin-W-REF	COORD	other-A.6
	‘concerning the maternal kinship groups: they separated into Joujouwe, Waluwa, Linwe and others like that’ [B-N1]			

Deeləmə (and Kɔlama) has an allomorph $-A^{236}$ ($-Ó$ respectively) that occurs with certain nouns which share a common feature: the noun root ends with a bilabial consonant (mostly the bilabial nasal, but to a lesser extent also the bilabial plosive) preceded by a mid-back vowel (cf. §2.1.2). Therefore, the allomorph is phonologically conditioned. It is clear that in comparison to other varieties that use the NF class suffix *-w* in the equivalent lexemes, these nouns clearly belong to NF class *w*. The following examples illustrate this point. Kɔlama is included here to demonstrate the allomorph that differs from both Gyuma and Gwaandama but is similar to the suffix in Deeləmə. The order of the varieties deviates from the usual alphabetical arrangement of the varieties and the typical occurrence of only three varieties.

²³⁶ No examples with $-ə$, i.e. [+ATR] vowels, are attested. This may be because lexemes with [+ATR] vowels are much rarer than those with [-ATR] vowels. Since the allomorph occurs in Kɔlama with lexemes of both sets of vowels, it is assumed that this is theoretically possible in Deeləmə as well.

Deeləmə	Kələma	Guyuma	Gwaandama	Gloss
<i>nəm-à</i>	<i>nəm-ó</i>	<i>nǎ-w-á</i>	<i>nəm-w-à</i>	‘animal, meat’
<i>ʃəm-à</i>	<i>(kùmòzwí-y-é)</i>	<i>kũ-w-é</i>	<i>(kùmdzĩ-y-á)</i>	‘mother’
<i>lɔtəm-a</i>	<i>látóm-ó</i>	<i>latǔ-w-a</i>	<i>litó-w-á</i>	‘onion’
<i>twɔm-a</i>	<i>tùrùm-ó</i>	<i>bu-w-e</i>	<i>tàblà-w-à</i>	‘grave, tomb’
<i>bɔ:b-a</i>	<i>kàrəm-ó</i>	<i>karv-w-a</i>	<i>bwàhà-w-à</i>	‘crocodile’
<i>kób-à</i>	<i>kòb-ò</i>	<i>ka-w-á</i>	<i>kà-w-à</i>	‘face’

Table 51. Allomorphs -À and -Ó in Deeləmə and Kələma in comparison to other varieties²³⁷

Kleinewillinghöfer (2024: 20, footnote 36) lists Nungvrama together with Viemo and Robma (both Samba-Duru) as ‘Benue-Volta’ languages that have both an NF class Y for humans and a class w for animates and other items. He considers these two classes to be Benue-Volta heritage which have been merged in most other cases.

4.2.8 Nominal form class HA

This NF class primarily consists of plural nouns that semantically denote animals, human beings, body parts, loanwords and other items. In Guyuma and Gwaandama, a few nouns suggest a transnumeral reading (cf. §4.2.15). In Deeləmə, no transnumeral nouns in this class were found in the data.

Deeləmə

<i>báli-hà</i>	‘cows’
<i>kúri-hà</i>	‘fathers’
<i>nám-hà</i>	‘animals’
<i>šám-hà</i>	‘mothers’

Guyuma

<i>bǎli-hé</i>	‘cows’
<i>kũ-hé</i>	‘mothers’
<i>kùrù-hé</i>	‘fathers’
<i>nǎ-há</i>	‘animals’
<i>ga-ha</i>	‘vomit’ [WL-G1]
<i>cum-he</i>	‘soot’ [WL-G1]

Gwaandama

<i>ʃí-há</i>	‘mothers’ [WL-N1]
<i>nəm-hà</i>	‘animals’ [WL-N1, WL-N3]
<i>kólbá-há</i>	‘bottles’ [WL-N1]
<i>kúkúr-há</i>	‘finger nails’ (Hiraki 1986: 53)
<i>cwùm-hâ</i> (also <i>tsà-mà</i>)	‘soot’ [WL-N1]

²³⁷ Sources for Deeləmə: WL-D1, WL-D2 and own data. Sources for Kələma: WL-L3. Sources for Guyuma: WL-G1, WL-G2 and own data. Sources for Gwaandama: WL-N1 and own data.

It is unclear which NF class in related languages correspond to NF class HA. It may be equivalent to NF class 10 *i or *st in Gur (cf. Kleinewillinghöfer/Vigeland 2016 and Miede et al. 2012: 25).

4.2.9 Nominal form class L

NF class L is semantically diverse, including terms for animals, body parts, metals, fruits, terms related to war, references to individuals (sometimes with disabilities) and loanwords (for examples of loanwords in this class, cf. §4.2.15). The class typically denotes singular nouns, although a small number of transnumerals can be found in the data.

Deeləmə

<i>susubá-l-à</i>	‘bark’ [WL-D1]
<i>gwàká-l-à</i>	‘male teenager’
<i>tákmákwángi-l-à</i>	‘tortoise, turtle’
<i>bàmbà-l-à</i>	‘bow’
<i>káb-l-à</i>	‘forehead’

Gvyɔma

<i>dúndù-l-é</i>	‘fool’
<i>kùkùgà-l-á</i>	‘tortoise, turtle’
<i>bìmbà-l-á</i>	‘bow’
<i>gárà-l-á</i>	‘tooth’
<i>yím-l-á</i>	‘death’

Gwaandama

<i>gúrbí-l-à</i>	‘male-goat, buck’
<i>bàmbà-l-à</i>	‘bow’ [WL-N1]
<i>tsú-l-à</i>	‘heart’
<i>gúrún-l-á</i>	‘egg’ (Hiraki 1986: 52)
<i>jòn-l-à</i>	‘famine’ [WL-N1, B-N1]
<i>wùrkà-l-à</i>	‘gruel’ [WL-N1]

Gvyɔma (and Cerĩma) have an allomorph *-d* after alveolar nasals. So far, only a few cases have been attested (see table below). It is a phonologically conditioned allomorph that stands in complementary distribution to the suffix *-l*. *-d* almost always occurs in nouns with [+ATR] vowel harmony²³⁸ and always follows an alveolar nasal (at least in Gvyɔma, the Cerĩma data is not conclusive). After noun roots with a final nasalised vowel or with a bilabial nasal, the suffix *-l* occurs. This is demonstrated by the last two examples in the following table. A comparison with Deeləmə and Gwaandama reveals that the respective lexemes belong to the same class, even if they have different roots. The following lexemes

²³⁸ With the exception of one word: ‘room, roof, hut, shrine’ which is *taɲda* in [WL-C2] and [WL-G1], *táándá* in [WL-L2] and *tándá* in Newman/Newman (1977b: 34, 44, 49) (and *taada* in Cerĩma [WL-C2]) (notation as in the sources). However, my language assistant clearly pronounced it as *téndé*, using [+ATR] vowels.

serve as examples. Note that the order of the varieties presented here differs from the usual order.

Gyɔɔma	Cerĩma	Deeləmə	Gwaandama	Gloss
<i>kurumzun-d-e</i>	<i>kukurumzwi-d-e</i>	<i>tungezuen-l-a</i>	<i>k̀̀r̀̀v̀̀mkwà-là</i>	‘beetle’
<i>sin-d-e</i>	<i>sin-d-e</i>	<i>(tanga-w-a)</i>	<i>(dz̀̀v̀̀dz̀̀v̀̀-w-à)</i>	‘(beer) pot’
<i>zín-d-é</i>	<i>zin-d-e</i>	<i>jáv̀̀n-l-à</i>	<i>jáv̀̀n-l-á / jín-l-á</i>	‘name’
<i>fín-d-é</i>	<i>(finne)</i>	<i>fin-l-ə</i>	<i>fin-l-ə</i>	‘flower’
<i>tén-d-é</i>	<i>taa-d-a</i>	<i>tan-l-a</i>	<i>tá-l-á</i>	‘room’
<i>f̃-l-á</i>	<i>f̃ṽg-l-a</i>	<i>f̃-l-a</i>	<i>g̀̀r̀̀v̀̀-l-á</i>	‘egg’
<i>kwíndìm-l-é</i>	<i>kwedum-l-e</i>	<i>kwarim-l-a</i>	<i>g̀̀v̀̀s̀̀m-l-à</i>	‘knee’

Table 52. Allomorphs -l and -d in comparison²³⁹

4.2.10 Nominal form class A

This NF class includes plural nouns, with the plural suffix varying in form across the different varieties. Deeləmə has a glottal stop before the vowel [-ʔà]/[- ʔə] (cf. §2.3.3), while Gyɔɔma exhibits the only NF suffix that consists solely of a vowel and no consonant [-á]/[-é] and Gwaandama appears to be in the middle of a degradation process [-a]/[-ə] or [-ʔa]/[-ʔə] (see below).

Deeləmə

<i>má- ̀̀</i>	‘bodies’
<i>tákmákwángí- ̀̀</i>	‘tortoises/turtles’
<i>bàmbà- ̀̀</i>	‘bows’
<i>káb- ̀̀</i>	‘foreheads’

Gyɔɔma

<i>múngòrò-é</i>	‘mangos’ (from Hausa <i>mangwàr̀̀ò</i>)
<i>tén-é</i>	‘rooms’
<i>káb-á</i>	‘foreheads’
<i>p̀̀-á</i>	‘thighs’

Gwaandama

<i>g̀̀b-à</i>	‘water-carrying pot’ [WL-N1]
<i>káb-à</i>	‘foreheads’ [WL-N1]
<i>g̀̀r̀̀v̀̀n- ̀̀</i>	‘eggs’ (Hiraki 1986: 52), [WL-N1]
<i>s̀̀g̀̀- ̀̀</i>	‘foam’ [WL-N1]

The presence or absence of the glottal stop in the different varieties may be explained by a process of degradation, which is (synchronically) at different stages in each variety. The glottal stop still occurs frequently in Deeləmə, while Gwaandama is currently undergoing

²³⁹ Sources for Gyɔɔma: WL-G1, WL-G2 and own data. Sources for Cerĩma: WL-C2. Sources for Deeləmə: WL-D1, WL-D2, WL-N1 and own data. Sources for Gwaandama: WL-N1 and own data.

the degradation process. This is supported by the fact that the glottal stop was mentioned in Jungraithmayr (1968/1969: 167, 175, 177) and Hiraki (1986), only partially in [WL-N1], a list collected in the 1990s, but not at all in my field research. Gvyvma has nearly completed this process, with only a few lexemes in [WL-G2] being depicted with the glottal stop.²⁴⁰

To consider the suffix with the glottal stop as an older reflex of the NF class appears to be justified when comparing Nvngvrama to other languages. NF class A seemingly relates back to a Niger-Congo proto class 6 (Kleinewillinghöfer/Vigeland 2016). Kleinewillinghöfer (2024: 20) attests this NF class to occur in language groups such as Gur (reconstructed as *ya,*ɲa) and Benue-Congo (reconstructed as *a), but having been replaced by or merged with other NF classes in, for example, the Vere and Samba-Duru languages. It is interesting to note that Nvngvrama and Lɔŋto are the only languages in the Upper Benue Basin where this proto class has been clearly preserved. In Lɔŋto, the agreement marker is *ʔe*, i.e. with a glottal stop, while the NF class is marked with *-ye ~ -ʔe* (Kleinewillinghöfer 2024: 20f.). In other Niger-Congo branches, it appears to be more common that the NF class or reflexes of the agreement markers have the form CV, where C is a nasal and/or a velar plosive. For Eastern Oti-Volta, for example, the marker is reconstructed as *ka and was then reduced to *ɲa and *a as “the most common class 6 marker” (Miehe et al. 2012: 21) in Oti-Volta languages. This may be an indication that NF class A in Nvngvrama relates back to an NF class containing a consonant that was reduced and is now in the process of depletion.

Because Gvyvma and Gwaandama add no glottal stop, certain rules apply to avoid a hiatus between a final vowel of the noun root and the NF class suffix (cf. §2.1.3.3). When the two vowels are of the same quality, they merge to form a long vowel. In Gvyvma, the high tone of the REF marker perseveres when the tones on the vowels differ. No examples of different tones following each other are attested in Gwaandama.

Gvyvma

/kòkǔgà-á/	→ [kòkǔgá:]	‘tortoises/turtles’
/nà-á/	→ [ná:]	‘hands, arms’
/bìmbà-á/	→ [bìmbá:]	‘bows’
/yà-à/	→ [yà:]	‘place’

Gwaandama

/má-á/	→ [má:]	‘bodies’ (Sabe 2014: 44), [WL-N1]
/ná-á/	→ [ná:]	‘hands, arms’
/bàmbà-à/	→ [bàmbà:]	‘bows’ [WL-N1]
/gúbá-á/	→ [gúbá:]	‘stones’

²⁴⁰ For example, *caṽ-á* ‘hoes’ (but *caṽwa* in [WL-G1]), *ma-á* ‘farms’ (but *ma-a* in [WL-G1]), *dá-á* ‘sores, wounds’ (but *da-a* in [WL-G1]), *gǎ-á* ‘loads’.

There are three ways to avoid a hiatus when the two vowels following each other are not the same. The first one is to assimilate the vowel of the noun root to the following NF class suffix, but only when the noun stem consists of one syllable of the shape CV.²⁴¹

Gvɔvɔma

/tu-e/	→ [t ^h we] ²⁴²	‘clouds’ [WL-G2]
/dú-é/	→ [dwé]	‘heads’ [WL-G1]
/bì-á	→ [bá:]	‘metals, money’ (Newman/Newman 1977b: 23)

Gwaandama

/ɲwú-á/	→ [ɲwá:]	‘teeth’ [WL-N1] (cf. Sabe 2014: 44)
/dú-á/	→ [dwá:]	‘heads’ (Sabe 2014: 42, 44)
/ɲwù-à/	→ [ɲwà:]	‘eyes’ [WL-N1]
/tsù-á/	→ [t ^h wá:]	‘hearts’ ²⁴³ [S-N3]

The second way is used when the last syllable of the noun stem has the shape C \check{V} . In this case, the stem vowel is not assimilated to the suffix. Instead, an approximant is inserted and nasalisation spreading occurs.²⁴⁴ This rule applies to Gvɔvɔma, but there is insufficient data to confirm this for Gwaandama.

Gvɔvɔma

/bḍ-á/	→ [bḍwá]	‘leopards’
/kḍ-á/ ²⁴⁵	→ [kḍwá]	‘war, combat, struggle’
/cáwḍ-á/	→ [cáwḍwá]	‘hoes’

Third, in all cases where the noun root ends with /l/, the approximant [j] is inserted.

Gvɔvɔma

/gìngírì-á/	→ [gìngírìjá]	‘frog’
/zvndi-a/	→ [zvndija]	‘bat’ [WL-G1]
/takasírì-a/	→ [takasírìja]	‘lizard’ [WL-G1]
/nì-á/	→ [nìjá]	‘thing(s)’ ²⁴⁶
/da jiji-e/	→ [da jijije] ²⁴⁷	‘kid, fawn, goatling’ [WL-G1]
/susubi-e/	→ [susubije]	‘spider’ [WL-G1]
/kwèṅnì-é/	→ [k ^w èṅnìjé]	‘bush’

Gwaandama

/gìngírì-à/ ²⁴⁸	→ [gìngírìjà]	‘frogs, toads’ [WL-N1]
/nì-à/	→ [nìjà]	‘thing(s)’
/gùrbì-à/	→ [gùrbìjà]	‘he-goat’ [WL-N1]

²⁴¹ With at least two exceptions in Gvɔvɔma: *pḍ-á* ‘thighs’ and *nì-á* ‘thing(s)’.

²⁴² There is no indication of vowel lengthening in [WL-G1] and [WL-G2].

²⁴³ The rising tone (or rather the high part of the rising tone) indicates definiteness.

²⁴⁴ In contrast to the usual notation, the following examples illustrate the process of nasalisation spreading.

²⁴⁵ Also *kḍ-tá* [WL-G1].

²⁴⁶ This lexeme can refer to one or more things in all three varieties, despite being in a plural class. It is not considered a transnumeral as it does not meet the definition (see §4.1).

²⁴⁷ But also: *zwa ji-le* / *zwa jee* [WL-G1]. Another example also suggests that both NF class forms are possible: *kenzi-le* becomes *kenzi-ye* or *kenze* (probably rather *kenze*.) in the plural [WL-G1].

²⁴⁸ There are different tone patterns for this lexeme in [WL-N1].

4.2.11 Nominal form class KA

NF class KA is semantically diverse, encompassing body parts, elongated items and nature-related terms, such as most tree names (cf. Dunnamah et al. 2016: 48, cf. Mieke et al. 2012: 27 on the semantics of the equivalent class in Gur languages).

Deeləmə

<i>sá-kà</i>	‘short, small stick’
<i>cá-kà</i>	‘leg’
<i>bál-kà</i>	‘stick’
<i>fà-kà</i>	‘rainy season’
<i>ná-kà</i>	‘hand, arm’

Gvyvma

<i>jì-ké</i>	‘arrow’
<i>su-ké</i>	‘hair’ [WL-G2]
<i>dá-ká</i>	‘road, path’
<i>mwòn-ká</i>	‘moon’ [WL-G2]
<i>swa-ká</i>	‘mountain’ [WL-G2]
<i>nálá-ká</i>	‘day’

Gwaandama

<i>jì-kà</i>	‘arrow’ [WL-N1]
<i>kwáb-ká</i>	‘leg’ [WL-N1]
<i>bál-ká</i>	‘stick’ [WL-N1]
<i>yàpíl-ká / mùn-kà</i>	‘moon’ [WL-N1]
<i>tárá-ká</i>	‘river’ [WL-N1]
<i>yíl-ká</i>	‘road’
<i>gùr-kà</i>	‘black kite’ [WL-N1]

Elstermann et al. (2021: 329, 337) claim that NF class KA also includes transnumerals. However, they acknowledge that their analysis is inconclusive due to the limited data and only one example, *cucul-ke* ‘shade’ [WL-G1]. In my own data, only one more example occurs that might indicate the use of NF class KA as a class for transnumerals: *tám-kà* ‘happiness’ (Deeləmə). Nevertheless, only two examples in two varieties are not sufficient to support the representation of NF class KA as a transnumeral class in Figure 5 in §4.2.14.

NF class KA forms deriflection classes with three different NF classes (cf. §4.2.14). This suggests that it may be a fusion of two or three former NF classes. Similar cases occur, for example, in Gur, where it is likely that Proto-Gur classes 12 *ka (forming a deriflection class with *mu, cf. §4.2.13) and 15 *kv (forming a deriflection class with *tv, cf. §4.2.12) have merged (Mieke et al. 2012: 9) and possibly another class for which there is no evidence in Gur, but that is reconstructed as *ki in Benue-Congo. A more detailed discussion can be found in Elstermann et al. (2021: 343) (cf. Kleinewillinghöfer (2024: 19) who reports similar mergers in Samba-Duru (i.e. a subgroup of ‘Benue-Volta’/‘Adamawa’) languages).

4.2.12 Nominal form class *TA*

This NF class has mostly plural nouns as well as a significant number of abstract concepts and uncountable items.

Deeləmə

<i>zwú-tà</i>	‘excrements’
<i>cá-tà</i>	‘legs’
<i>bál-tà</i>	‘sticks’
<i>wár-tà</i>	‘wedding’
<i>gwàkà-tà</i>	‘male teenagers’

Gvyvma

<i>jì-té</i>	‘arrows’
<i>zí-tá</i>	‘towns’
<i>cáw-tá</i>	‘legs’
<i>bàl-tá</i>	‘sticks’
<i>kù-tá</i>	‘wars’

Gwaandama

<i>jì-tà</i>	‘arrows’ [WL-N1]
<i>búlùm-tà</i>	‘nest’ [WL-N1]
<i>kwáb-tá</i>	‘legs’ [WL-N1]
<i>bál-tá</i>	‘sticks’ [WL-N1]
<i>yìl-tà</i>	‘youth’ [WL-N1]

Hepburn-Gray (2020: 86) proposes a relationship between NF class *TA* in Nungvrama and Proto Bantu classes 13 (*tu) and 21 (*ti), as numbered by Bleek and Meinhof. Elstermann et al. (2021: 342, 344) similarly suggest that this NF class resulted from the merger of two distinct classes in “Pre-Longuda” times, possibly *tu and *ti. *TA* also shows some resemblance to Proto Gur class 13 *st²⁴⁹ and to Proto Gur class 21 *tv, as it contains many transnumeral nouns but “has often developed into a plural marker” (Miehe et al. 2012: 31), with the corresponding singular class being Proto Gur class 15 *kv. In addition, it typically entails derivations (cf. §4.3.2). This class is also postulated by Kleinewillinghöfer (2019a, 2019c, 2024: 26) as one of the morphological evidences of his proposed ‘Benue-Volta’.

²⁴⁹ Cf. Miehe et al. (2012: 25) for the question of whether this class is related to Proto Bantu class *ti.

4.2.13 Nominal form class *M*

This NF class consists mostly of abstract nouns and other transnumeral items. It also includes language names.²⁵⁰

Deeləmə

<i>súsúmswá-m-ə</i>	‘laughter’
<i>délé-m-ə</i>	‘Deeləmə language’
<i>ɲí-m-à</i>	‘milk’
<i>dù-m-á</i>	‘sleep’
<i>dá-m-à</i>	‘roads’

Gvɣvma

<i>tulge-m-é</i>	‘fog’ [WL-G2]
<i>méhé-mé</i>	‘tears’ [WL-G2]
<i>yì-m-á</i>	‘milk’
<i>dù-m-á</i>	‘sleep’
<i>tárá-m-á</i>	‘rivers’ [WL-G2]

Gwaandama

<i>tú-m-ə</i>	‘trade’ [WL-N1]
<i>dù-m-à</i>	‘sleep’ [WL-N1]
<i>fàrà-m-à</i>	‘palm oil’ [WL-N1]
<i>tárá-m-á</i>	‘rivers’ [WL-N1]
<i>yíl-m-á</i>	‘roads’ [WL-N1]

It is likely that this NF class has resulted from the fusion of two classes that also occur in Proto-Gur: 22 *mv and 23 *ma (Miehe et al. 2012: 10, 32f.). In Gur, it is common for these two classes to be merged (Miehe et al. 2012: 32, cf. Kleinewillinghöfer 2024: 7, 31f. on this class in Samba-Duru languages and their relation to Gur). Especially based on the suffixes found in Kɔlama, I argue that this is also true for Nvngvrama (cf. Elstermann et al. 2021: 344). Although Kɔlama is not included in this thesis due to a lack of data beyond wordlists [WL-L1] and [WL-L3], a digression to Kɔlama lexemes is worthwhile in this case (and possible with the data at hand) to support the hypothesis that the two NF classes have fused diachronically: In the citation form of Kɔlama, the referential marker generally exhibits the same vowels as Gvɣvma, i.e. /e/ and /a/, depending on the ATR value of the noun root. This is illustrated by the following examples.

Kɔlama

[+ATR]		[-ATR]	
<i>bù-m-é</i>	‘caves, holes’	<i>tì-m-á</i>	‘trees’
<i>mú-w-é</i>	‘terrace’	<i>swà-w-á</i>	‘gazelle’
<i>púkíkí-l-é</i>	‘dust’	<i>pó-l-á</i>	‘pond’ ²⁵¹

²⁵⁰ Cf. Kleinewillinghöfer (2024: 7, 31) who demonstrates that the Gəmme and Vere languages in the Samba-Duru group have a comparable class.

²⁵¹ All lexemes from [WL-L3].

However, in the citation form of NF class M, both /o/ and /e/ occur as [+ATR] vowels. It is assumed that the two vowels occurring with NF class M in Kɔlɔma are former reflexes of two NF classes that have completely disappeared in all other varieties. Compare the following examples in Kɔlɔma with Deelɔmɔ, Gʊyʊma and Gwaandama.²⁵²

Kɔlɔma	Deelɔmɔ	Gʊyʊma	Gwaandama	
<i>nú-mó</i>	<i>nù-m-ə</i>	<i>lú-m-é / nú-mé</i>	<i>lú-m-ə</i>	‘oil, grease’
<i>dú-mó</i>	<i>bɪ-m-a</i>	<i>bú-m-á</i>	<i>(bì-m-à)</i>	‘dirt, filth’
<i>dù-mó</i> ²⁵³	<i>du-m-ə</i>	<i>du-m-é</i>	<i>dù-m-ə</i>	‘seed’
<i>bù-mé</i>	<i>bv-m-a</i>	<i>(fú-l-e / bu-te)</i>	<i>(kàtsùkə-l-ə)</i>	‘caves, holes’
<i>sìn-mé</i>	?	<i>sin-m-e</i>	<i>wí-m-ə</i>	‘(seasonal) rivers’
<i>tsìtsì-mè</i>	<i>ʃíʃi-m-ə</i>	<i>sìsì-m-é</i>	<i>tsìtsì-m-ə</i>	‘urine’

Table 53. NF class suffixes -mó and -mé in Kɔlɔma in comparison to other varieties²⁵⁴

4.2.14 Deriflection system

The previous sections presented the different NF classes. The deriflection system is summarised in the following figure. A singular and a plural NF class forming a deriflection class are linked by a straight line. NF classes containing transnumerals are also deriflection classes. They are marked by a circle. Main deriflection classes with a large number of items are marked by continuous lines, while minor deriflection classes with only a few items (usually less than five) are indicated by dotted lines.

The figure illustrates nine deriflection classes (ten in Deelɔmɔ) that distinguish between singular and plural. Of these classes, five are major deriflection classes. Additionally, there are five transnumeral deriflection classes, of which two are major classes. It is worth noting that there are no intersecting lines, except for the minor deriflection class KA/A, which only has one known item in each variety and can be considered a fossilised class pair (Kleinewillinghöfer p.c.). The system in Nʊngʊrama is thus generally simple and, in most cases, exhibits a one-to-one mapping of a singular NF class with a plural NF class.

²⁵² There is one more class in Kɔlɔma, namely NF class W, in which [o] as opposed to [ɔ] occurs, e.g. *tóbòlìwó* ‘mud-brick’ but *tóbòlìhé* ‘mud-bricks’ and *ɲàm̀k̀à̀ɲìwó* ‘wild animal’ but *ɲàm̀k̀à̀ɲìhá* ‘wild animals’ [WL-L3].

²⁵³ Actually *du-mó* ‘seed’, i.e. without the low tone on the first syllable. However, it is generally assumed that no tone marking indicates a low tone in the wordlists (Kleinewillinghöfer p.c.).

²⁵⁴ Sources for Kɔlɔma: WL-L1, WL-L3. Sources for Deelɔmɔ: WL-D1, WL-D2 and own data. Sources for Gʊyʊma: WL-G1, WL-G2 and own data. Sources for Gwaandama: WL-N1.

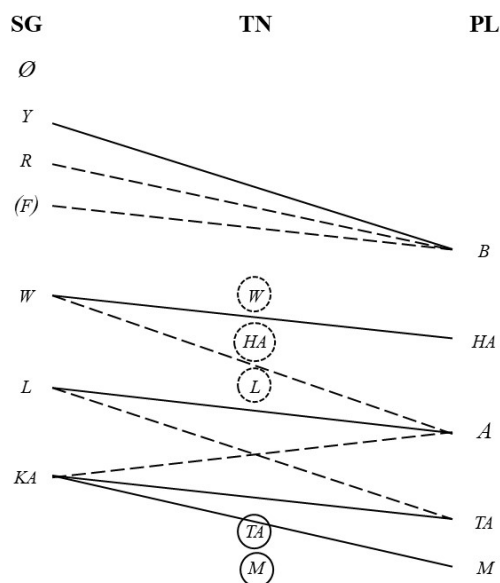


Figure 5. NF suffixes combining to deriflections in Nvngvrama (Deeləmā, Gvyvma and Gwaandama) (adapted from Elstermann et al. (2021: 337))

The following section introduces and illustrates the main deriflection classes: \emptyset , Y/B, W/HA, L/A, KA/TA and KA/M, as well as the two transnumeral deriflection classes TA and M. Additionally, the minor deriflection classes, R/B, F/B, W/A, L/TA and KA/A, as well as the transnumeral deriflection classes W, HA and L are described.

The deriflection class \emptyset differs from other classes in that it neither denotes transnumerals nor make a singular-plural distinction.

Deriflection class \emptyset

Deeləmā

<i>Múśá</i>	male name
<i>Dònibà</i>	female name

Gvyvma

<i>Ayu</i>	Rabbit in a folk tale (J. Newman 1978)
<i>Gvyvk</i>	town name (Newman/Newman 1977a)

Gwaandama

<i>Dzúbálv</i>	town name [B-N1]
<i>Piságìn</i>	male name [B-N4]

The deriflection class Y/B includes nouns for humans, kinship terms and occupational titles. Similar NF class suffixes can be found in neighbouring class languages, such as *-yo* and *-bo* in Ləŋto (Kleinewillinghöfer 2012: 6), *-Ø/-I/-E* and *-BU* in Tula (Elstermann 2021: 54, 74) and *-i* and *-be* in Dijim (Ajede 2022), among others.

Deriflection class Y/B

Deeləmā

<i>zwá-y-à</i>	<i>zwá-b-à</i>	‘child/children’
<i>bwáli-y-à</i>	<i>bwáli-b-à</i>	‘man/men, male(s), husband(s)’

Gyɔɔma		
<i>mwàrì-y-á</i>	<i>mwàrì-b-á</i>	‘older sibling(s)’
<i>zwì-y-á</i>	<i>zwì-b-á</i>	‘younger sibling(s)’

Gwaandama		
<i>gíhí-y-á</i>	<i>gíhí-b-á</i>	‘woman/women’ [WL-N1]
<i>wàrà-y-à</i>	<i>wàrà-b-à</i>	‘husband(s)’ [WL-N1]

The W/HA deriflection class is very common in Nvngvrama, encompassing lexemes for animals, humans, loanwords and more. The third and fourth examples in Deeləmə illustrate the allomorph -à of NF class w (cf. §4.2.7).²⁵⁵

Deriflection class W/HA

Deeləmə

<i>kàsó-w-à</i>	<i>kàsó-hà</i>	‘market(s)’ (from Hausa <i>kàsúwá</i>)
<i>kúrí-w-à</i>	<i>kúrí-hà</i>	‘father(s)’
<i>ɲóm-à</i>	<i>ɲám-hà</i>	‘animal(s), meat’
<i>ɟəm-à</i>	<i>ɟám-hà</i>	‘mother(s)’

Gyɔɔma

<i>búl-w-é</i>	<i>búl-hé</i>	‘ball(s)’ (from English <i>ball</i>)
<i>kàkà-w-á</i>	<i>kàkà-há</i>	‘face(s)’

Gwaandama

<i>àmí-w-à</i>	<i>àmí-hà</i>	‘cat(s)’ [WL-N1]
<i>bwàhà-w-à</i>	<i>bwàhà-hà</i>	‘crocodile(s)’ [WL-N1]

NF class L primarily forms a deriflection class with NF class A. Note the allomorphs in NF class L in Gyɔɔma (cf. §4.2.9). The semantics of this class are difficult to determine, except for body terms.

Deriflection class L/A

Deeləmə

<i>glás-l-à</i>	<i>glás-à</i>	‘mirror(s)’ (from English <i>glass</i>)
<i>bwá-l-à</i>	<i>bwá-à</i>	‘salt(s)’

Gyɔɔma

<i>gàrà-l-á</i>	<i>gàrà-á</i> [gàrà:]	‘tooth/teeth’
<i>kàrásǝ-l-à</i>	<i>kàrásǝ-à</i>	‘wing(s)’
<i>ɸín-d-é</i>	<i>ɸín-é</i>	‘flower(s)’ [WL-G2]
<i>kurumzun-d-e</i>	<i>kurumzun-e</i>	‘beetle(s)’ [WL-G1]

Gwaandama

<i>dzíngá-l-á</i>	<i>dzíngá-á</i>	‘ear(s)’ [WL-N1]
<i>sǝ-l-à</i>	<i>sǝ-à</i>	‘tsetse fly/flies’ [WL-N1]

²⁵⁵ These singular-plural pairings often have different vowel qualities in the noun root. Compare also Kólama: *tsǝb-ǝ* / *tsib-há* ‘rat’, *ɸəm-ǝ* / *ɸám-há* ‘feather’, *látóm-ǝ* / *látóm-há* ‘onion’ [WL-L3].

The deriflection class KA/TA includes specific names of trees, while the generic term for ‘tree’ falls under deriflection class KA/M. Other common semantics in this class include body parts (if they are not in deriflection class L/A) and elongated items.

Deriflection class KA/TA

Deeləmə

<i>swĩ-kà</i>	<i>swĩ-tà</i>	‘wing(s)’
<i>ji-ká</i>	<i>ji-té</i>	‘arrow(s)’

Gvyvma

<i>cáw-ká</i>	<i>cáw-tá</i>	‘leg(s)’
<i>bàl-ká</i>	<i>bàl-tá</i>	‘stick(s)’

Gwaandama

<i>nàmnà-ká</i> ²⁵⁶	<i>nàmnà-tá</i>	‘palm tree(s)’ [WL-N1]
<i>gwàrà-kà</i>	<i>gwàrà-tà</i>	‘gourd(s)’ [WL-N1]

The deriflection class KA/M contains elongated items and numerous nature-related nouns, including the generic term for ‘tree’, as mentioned above.

Deriflection class KA/M

Deeləmə

<i>dá-kà</i>	<i>dá-m-à</i>	‘road(s)’
<i>dí-kà</i>	<i>dí-m-à</i>	‘cloth(s)’

Gvyvma

<i>tára-ká</i>	<i>tára-m-á</i>	‘river(s)’ [WL-G2]
<i>swa-ká</i>	<i>swa-m-á</i>	‘mountain(s)’ [WL-G2]

Gwaandama

<i>wàhà-kà</i>	<i>wàhà-m-à</i>	‘tree(s)’ [WL-N1]
<i>fǔ-ká</i>	<i>fǔ-m-á</i>	‘track(s)’ [WL-N1]

The deriflection class TA contains mostly abstract nouns (cf. §4.3.2) and some liquids.

Deriflection class TA

Deeləmə

<i>gwàkà-tà</i>	‘male youth’
<i>kwã-ta</i>	‘relative’ [WL-D2]

Gvyvma

<i>zún-té</i>	‘excrements’ [WL-G2]
<i>yìl-tà</i>	‘youth’ [WL-N1]

Gwaandama

<i>àw-tà</i>	‘sauce, soup, stew’ [WL-N1]
<i>cír-tá</i>	‘tribute’ [WL-N1]

The deriflection class M includes language names and transnumerals such as liquids.

²⁵⁶ Also *nàmnà-ká* [WL-N1].

Deriflection class M

Deeləmə

<i>má-m-à</i>	‘water’
<i>gwáándá-m-à</i>	‘Gwaanda language’

Gvyvma

<i>má-m-á</i>	‘water’
<i>núngvrà-m-á</i>	‘Nungvra language’

Gwaandama

<i>ní-m-á</i>	‘milk’ [WL-N1]
<i>súr-m-á</i>	‘blood’ [WL-N1]

Minor deriflection classes typically have only a few lexemes in the data. Deriflection class R/B, for instance, exhibits only the lexeme for ‘person, people’.²⁵⁷

Deriflection class R/B

Deeləmə

<i>yí-r-à</i>	<i>yí-b-à</i>	‘person(s), man/men’
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Gvyvma

<i>yì-r-é</i> (also <i>nì-r-é</i>)	<i>yì-b-é</i> (also <i>nì-b-é</i>)	‘person(s), man/men’
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Gwaandama

<i>yì-r-à</i>	<i>yì-b-à</i>	‘person(s), man/men’ [WL-N1]
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Deriflection class F/B is even more restricted than R/B because it only occurs in Deeləmə (and Cerĩma and Kolama), but not in Gvyvma and Gwaandama (cf. §4.2.5).²⁵⁸

Deriflection class F/B

Deeləmə

<i>yír-à</i>	<i>yír-b-à</i>	‘woman/women, female(s), wife/wives’
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The deriflection class w/A is limited to very few lexemes, with only ‘farm’ and ‘house’ attested in all three varieties, while ‘ear’ is only attested in Gvyvma. In Deeləmə and Gwaandama, the latter belongs to deriflection class L/A (*tù-là* / *twá-à* and *dzingá-lá* / *dzingá-á*²⁵⁹, respectively [WL-L1]).

²⁵⁷ Other ‘Adamawa’ languages also have this deriflection class, e.g. Waja *nè-rè* / *nù-wà* (Kleinewillinghöfer 1991: 88, 115), Tso *nè-r* / *nə-bv* and Maa/Kamo *dá-ré* / *ná-bí* (Kleinewillinghöfer 1995/2014). The ‘Adamawa’ languages showing resemblance to Oti-Volta languages as mentioned in §4.2.4 also form their plural with NF class B, e.g. Dadiya *nə-l* / *nə-b* (Kleinewillinghöfer p.c.) and Lɔŋto *yíge-lyɔ* / *nége-bó* (Kleinewillinghöfer 2012: 63).

²⁵⁸ Compare also the other two Nungrama varieties Cerĩma and Kolama: *yír-á* / *yír-bá* and *yir-e* / *yir-be*, respectively (Kleinewillinghöfer 1994/2014), [WL-L1]. In Gvyvma and Gwaandama, the noun belongs to deriflection class Y/B: *má-yá* / *mó-bá* and *gíhí-yá* / *gíhí-bá*, respectively [WL-G2, WL-N1]. In Waja, it is *nvr-è* / *nvr-ù-mbà* (Kleinewillinghöfer 1991: 118), which shows similar NF class suffix reflexes. The noun root is also similar to Deeləmə (recall that /y/ and nasals are closely related, cf. §2.1.1.3 and §4.2.4).

²⁵⁹ The tone on the first TBU occurs as high and as low in [WL-L1].

Deriflection class W/A**Deeləmə**

<i>mà-w-à</i>	<i>mà-à</i>	‘farm(s)’
<i>fʷá-w-à</i>	<i>fʷá-à</i> [fʷà]	‘house(s)’

Gvyvma

<i>mwá-w-á</i>	<i>mwá-á</i>	‘farm(s)’ [WL-G1, WL-G2]
<i>swà-w-á</i>	<i>swà-á</i> [sʷá]	‘house(s)’ [WL-G1, WL-G2]
<i>tʷ-w-á</i>	<i>twá-á</i>	‘ear(s)’ [WL-G1, WL-G2]

Gwaandama

<i>mà-w-à</i>	<i>mà-à</i>	‘farm(s)’ [WL-N1]
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Examples of deriflection class L/TA are rarely attested, possibly due to the lack of plural forms in the data, particularly in the wordlists of Deeləmə.

Deriflection class L/TA**Deeləmə**

<i>wǎ-l-à</i>	<i>wǎ-tà</i> ²⁶⁰	‘leaf/leaves’
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Gvyvma

<i>kǔ-l-á</i>	<i>kǔ-tá</i>	‘war(s), fight(s)’
<i>bwɔ-l-a</i>	<i>bwɔ-ta</i>	‘gruel (kunu)’ [WL-G1]

Gwaandama

<i>wùrkà-l-à</i>	<i>wùrkà-tà</i>	‘gruel’ [WL-N1]
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In deriflection class KA/A, only one noun, ‘hand, arm’, is attested in each variety.²⁶¹ Elstermann et al. (2021: 343) “assume this [gender KA/A] to be historically diagnostic because de Wolf (1971: 55) reconstructs the pattern *ku/*a for this lexical item in the Benue-Congo group” (cf. §4.2.11 for hypotheses on the origin of KA in Nvngvrama). The plural form of the only lexeme in this deriflection class can also be *nátà* (Deeləmə) / *nátá* (Gvyvma and Gwaandama) in NF class TA. Its meaning is then limited to the context of measuring.²⁶²

Deriflection class KA/A**Deeləmə**

<i>ná-kà</i>	<i>ná-’à</i>	‘hand(s), arm(s)’
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Gvyvma

<i>nà-ká</i>	<i>nà-á</i>	‘hand(s), arm(s)’
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²⁶⁰ My language assistant provided this example. However, in [WL-L1], two singular-plural pairs are given: *wǎ-là* / *wǎ-à* and *wǎ-kà* / *wǎ-tà*. This either suggests that the pair mentioned above is not an example for the deriflection class L/TA or that the plural forms can be used interchangeably.

²⁶¹ Kólama has probably one more noun occurring in this deriflection class: *nà-ká* / *ná-á* ‘mouth’ [WL-L1] (but in variation with *nà-lá* / *na-’á* [WL-L1]).

²⁶² Compare Elstermann et al. (2021: 343) in which the plural with *-ta* is depicted as the only possible plural form in Kólama, Deeləmə and Ceřima. They presume that the plural “is an innovation having arisen in analogy to the recurrent gender 7~KI/8~TP”. This may be true, but at least Deeləmə forms the plural regularly with NF class A, as shown above.

Gwaandama

ná-ká *ná-á* ‘hand(s), arm(s)’ [WL-N1]

Similar to deriflection class L/TA, deriflection class W has only a few examples in the data. It is difficult to determine whether a lexeme belongs to this deriflection class as a transnumeral or if it is a singular form for which no plural is indicated in the data.

Deriflection class w**Deeləmə**

*d̀v-w-á*²⁶³ ‘rain’
kawvni-w-a ‘dryness, aridity’ [WL-D1]

Gvyvma

d̀v-w-á ‘rain’
gwabir-w-a ‘time’ [WL-G2]

Gwaandama

d̀v-w-à ‘rain’ [WL-N1]
jóró-w-á ‘time’ [WL-N1]

The transnumeral deriflection class HA is only present in the Gvyvma and Gwaandama data. No instances of this class have been found in the Deeləmə data.

Deriflection class HA**Gvyvma**

ga-ha ‘vomit’ [WL-G1]
cum-he ‘soot’ [WL-G1]

Gwaandama

cwùm-hâ (also *tsà-m-à*) ‘soot’ [WL-N1]

Deriflection class L contains a very limited number of lexemes.²⁶⁴

Deriflection class L**Deeləmə**

nimnim-à-l-à ‘death’

Gvyvma

yim-l-á ‘death’

Gwaandama

nim-l-á ‘death’ [WL-N1]
*jòn-l-á*²⁶⁵ ‘famine’ [WL-N1, B-N1]

Gvyvma has one case, namely ‘water’, that suggests that TA can form a deriflection class with lexemes from NF class M as plurals of transnumerals: *ma-m-a* / *mam-ta*

²⁶³ But in [WL-L1] with the plural form *dà-hà*.

²⁶⁴ In both Kólama and Ceríma, the lexeme for ‘earth’ occurs in this class (*tsitsi-l-à* in both varieties [WL-L1]), while all other varieties have a different noun in deriflection class M.

²⁶⁵ In Deeləmə, a plural form with NF class A is attested. With the available data, it is unclear whether a plural can be formed in Gwaandama.

‘water/waters’ [WL-G1]. However, the phrase ‘to draw water’ occurs with both forms in which ‘waters’ is not a plausible translation: *kwab mam-a/mam-ta* [WL-G1]. This phrase rather suggests that *ma-m-a* stands in free variation with *mam-ta*. Note also the term ‘bottle gourd’ *ywara-mam-ka / ywara-mam-ta* [WL-G1].

4.2.15 Allocation of loanwords

Nvngvrama has incorporated lexemes from languages with which it is in contact, particularly Hausa, Dera and English. In recent years, English has been increasingly used to ‘borrow’ lexemes for institutions and modern technology such as ‘democracy’, ‘government’, ‘type-writer’ and ‘computer’ (cf. Sabe 2014: 48). These loanwords are often nouns and they always conform to Nvngvrama’s deriflection and gender system. It is noteworthy that all known nominal loanwords bear an NF class suffix, which is highly unusual (Kleinewillinghöfer, p.c.).

Heine (1968: 136) outlines three strategies of languages for integrating loanwords into an NF class system: automatic, phonological and semantic integration. Automatic integration assigns loanwords to a default NF class, regardless of their form or meaning, which is often but not always marked by a zero morpheme. Phonological integration occurs when a loanword fits into a class based on its last syllable, i.e. if the last syllable has the same shape as one of the suffixes. Semantic integration can be found when a loanword’s meaning determines its class. For example, a loanword that describes an animal would be integrated into a class where other animals can be found. Nvngvrama appears to primarily employ automatic integration, as evidenced by the prevalence of loanwords in the deriflection class W/HA, even when the lexemes’ forms or meanings do not necessarily align with this deriflection, e.g.:

Deeləmə

<i>wàsíká-w-à</i>	<i>wàsíká-hà</i>	‘letter(s)’	from Hausa <i>wàsīkā</i>
<i>tágá-w-à</i>	<i>tágá-hà</i>	‘window(s)’	from Hausa <i>tāgā</i>

Gvyvma

<i>kàsú-w-á</i>	<i>kàsá-há</i>	‘market(s)’	from Hausa <i>kàsúwá</i>
<i>lé:té-w-à /</i>	<i>lé:té-hà /</i>	‘letter(s)’	from English / from
<i>wàsíká-w-á</i>	<i>wàsíká-há</i>		Hausa <i>wàsīkā</i>

Gwaandama

<i>bókótì-w-à</i>	<i>bókótì-hà</i>	‘bucket(s)’ [WL-N1]	from English
<i>káfíntà-w-à</i>	?	‘carpenter’ [WL-N2]	from English
<i>makaranta-w-a</i>	?	‘school’ (Sabe 2014: 48)	from Hausa <i>makařantā</i>
<i>dankali-w-a</i> ²⁶⁶	?	‘potato’ (Sabe 2014: 48)	from Hausa <i>dānkālì</i>

Loanwords are also present in several other deriflection classes, including L/A, KA/TA and KA/M, although this is less common than in W/HA. No loanwords appear in the data in deriflection classes Y/B and M, which is consistent with Sabe’s findings (1989: 4).

²⁶⁶ But *càngilgálá / kùkwáháwà* in [WL-N1] and *gurula* in [WL-L3].

Lexemes that are not automatically integrated into deriflection class W/HA may be partially integrated due to their semantics. For instance, borrowed terms for fruit are often found in deriflection class L/A, as the following lexemes show.

Deeləmə

<i>mángòrò-l-à</i>	<i>mángòrò- 'à</i>	‘mango(s)’	from Hausa <i>mangwàr̃ò</i>
<i>áyàbà-l-à</i>	<i>áyàbà- 'à</i>	‘banana(s)’	from Hausa <i>áyàbà</i>

Gvyvma

<i>múngòrò-l-é</i>	<i>múngòrò-é</i>	‘mango(s)’	from Hausa <i>mangwàr̃ò</i>
<i>gvrv-l-a</i>	?	‘Kola nut’ [WL-G1]	from Hausa <i>gōr̃ò</i>

Gwaandama

<i>lèmú-l-á</i>	<i>lèmú-á</i>	‘orange(s)’ [WL-N3]	from Hausa <i>lèmō</i>
<i>kwàkwà-l-à</i>	?	‘coconut’ [WL-N3]	from Hausa <i>kwākwa</i>
<i>àbàrbá-l-á</i>	?	‘pineapple’ [WL-N2, WL-N3]	from Hausa <i>àbàrbā</i>

In other cases, the semantics of a deriflection class may be broadened, as appears to be the situation with deriflection class L/A, in which new technical terms are integrated (at least in Deeləmə and Gwaandama).

Deeləmə

<i>bátír-l-à</i>	<i>bátír- 'à</i>	‘battery/batteries’	from English
<i>laptop-l-a</i>	<i>laptop- 'a</i>	‘laptop(s)’	from English

Gwaandama

<i>mákróskòp-l-á</i>	?	‘microscope’ (Sabe 1995: 186)	from English
<i>ká:sèt-l-á</i>	?	‘cassette’ (Sabe 1995: 186)	from English

Agreement with loanwords does not differ from that with other nouns. Compare §4.2.15 for details on noun agreement.

4.3 Derivation

4.3.1 Nominalisation

In Nvngvrama, many nouns are derived from verbs or adjectives by adding an NF suffix, sometimes with a reduplicated root (cf. e.g. ‘death’ and ‘laughter’ in Deeləmə).

The following examples illustrate derivations from verbs:

Deeləmə

<i>mwàr</i>	‘to grow’	<i>mwàr-kà</i>	‘growth’
<i>swá</i>	‘to laugh’	<i>súsúmswá-m-à</i>	‘laughter’
<i>nàm</i>	‘to die’	<i>nímjnímó-l-à</i>	‘death’

Gvyvma

<i>yím</i>	‘to die’	<i>yím-l-á</i>	‘death’
<i>mwàr</i>	‘to grow’	<i>mwàrì-y-á</i>	‘older sibling’

Gwaandama

<i>tú</i>	‘to talk, to say’	<i>tú-w-á</i>	‘talk, speech’
<i>wàr</i>	‘to marry’	<i>wàr-kà</i>	‘marriage’
<i>làhà</i>	‘to be tired’	<i>làhà-tà</i>	‘tiredness’
<i>hàw</i>	‘to stab’	<i>hà-w-à</i>	‘hunt’ [WL-N1]
<i>bàmà</i>	‘to cultivate, till’	<i>bàmà-w-à</i>	‘cultivated ground, field’ [WL-N1]

The examples below show derivations from adjectives:

Deeləmə

<i>fírà-</i>	‘kind’	<i>fírà-m-à</i>	‘kindness’
<i>sìrà-</i>	‘strong’	<i>sìrà-m-à</i>	‘strength’

Gvyvma

<i>kúl-</i>	‘strong’	<i>kúl-m-é</i>	‘strength’
<i>jìk-</i>	‘straight’	<i>jì-ke</i>	‘arrow, quill, awl’ [WL-G1]

Gwaandama

<i>tsámá-</i>	‘lazy’	<i>tsámá-ká</i>	‘laziness’
<i>bwàn-</i>	‘full’	<i>bwàn-kà</i>	‘drunk’ [WL-N1]

The following Gvyvma examples demonstrate that a nominalisation derived from an adjective with NF class Y refers to a person previously mentioned (‘the X one’).

Gvyvma

<i>cí-y-è</i>	‘the other one, someone’
<i>tìb-y-é</i>	‘the short one’

Agent nouns are formed by adding the NF class Y to verbs that denote an action, often in combination with an object.

Deeləmə

(289)	<i>kab</i>	<i>bara-w-a</i>	<i>kab-bara-y-a</i>
	cut	hunt-W-REF	cut-hunt-Y-REF
	‘to hunt’ [WL-D2]		‘hunter’ [WL-D2]

(290)	<i>gwi</i>	<i>gwi-y-a</i>
	steal	steal-Y-REF
	‘to steal’ [WL-D1]	‘thief’ [WL-D2]

Gvyvma

(291)	<i>yú</i>	<i>sè-é</i>	<i>yú-sè-y-é</i>
	sing	song-A.REF	sing-song-Y.REF
	‘to sing (a song)’		‘singer’

Gwaandama

(292)	<i>ḡìb</i>	<i>yì-r-è</i>	<i>ḡìb-yìr-y-à</i>
	thresh	person-Y-REF	thresh-person-Y-REF
	‘to thresh a person, to kill’ [WL-N1]		‘murderer’ [WL-N1]

(293)	<i>mwàb</i> build 'to build something'	<i>nì-á</i> thing-A.REF	<i>mwàb-nì-y-à</i> build-thing-Y-REF 'potter' [WL-N1]
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When the verb and the object noun belong to different sets of ATR vowels, it is possible for both [+ATR] and [-ATR] vowels to appear together.

Deeləmə			
(294)	<i>háb</i> catch 'to catch fish'	<i>jǐ-w-ə</i> fish-W-REF	<i>háb-jǐ-y-ə</i> ²⁶⁷ catch-fish-Y-REF 'fisherman'

Gwaandama			
(295)	<i>dzi</i> go 'to go on a journey' [WL-N1]	<i>yàdzà-w-à</i> journey-W-REF	<i>dzi-yàdzà-y-à</i> go-journey-Y-REF 'passenger' [WL-N2]

4.3.2 Nominal form class shift

Nouns can be shifted from one NF class to another, altering their meaning (roughly) based on the semantics of the newly assigned class (cf. Güldemann/Fiedler 2019: 98f.). The shift from NF class Y referring to humans to NF class TA is particularly productive in creating abstract meanings. The examples below demonstrate the shift of a noun root between two or more NF classes, resulting in a change in meaning each time:

Deeləmə			
(296)	<i>yílǎ-w-à</i> slave-W-REF 'slave'		<i>yílǎ-tà</i> ²⁶⁸ slavery-TA.REF 'slavery'
(297)	<i>gwàkà-l-à</i> male.youth-L-REF 'male teenager'		<i>gwàkà-tà</i> male.youth-TA.REF 'male youth'
Gvyoma			
(298)	<i>zwà-b-á</i> child-B-REF 'children'		<i>zwàb-tá</i> ²⁶⁹ child-TA.REF 'childhood'
(299)	<i>gwàyvè-l-á</i> sick-L-REF 'sick person, invalid'		<i>gwàyvè-tá</i> sick-TA.REF 'sickness, disease'

²⁶⁷ In [WL-D2] *hab-jǐ-ya*.

²⁶⁸ Note the vowel change in this and the last example. Cf. §2.1.2 on the relation of [a] and [ɔ].

²⁶⁹ Note the remnant /b/ of NF class 2 in this derivation.

	Gwaandama		
(300)	<i>kwàntsá-y-á</i> royal-Y-REF 'chief, king'	<i>kwàntsá-l-á</i> royal-L-REF 'chieftaincy'	<i>kwàntsá-tá</i> royal-TA.REF 'tribute' [WL-N1]
(301)	<i>tàrbà-l-à</i> loincloth-L-REF 'man's loincloth' [WL-N1]	<i>tàrbǎ́-y-á</i> loincloth-Y-REF 'leatherworker' [WL-N1]	

For the shift of one NF class to another in combination with the diminutive marker, cf. §4.3.3.

4.3.3 Noun formation: diminutive

The concept of diminutives is generally associated with “smallness and endearment” (Savickienė/Dressler 2007: 4). However, it can also “develop more abstract meanings [...]: ‘small size’ > ‘small type of’ > ‘related to’” (Di Garbo 2013: 117).

In Nvngvrama, a diminutive noun can be formed through a productive noun formation process by preposing a diminutive morpheme to another noun. Nvngvrama features two diminutive morphemes: one can be argued to be a reduced reflex of ‘child’ (*zwá-* in both Deeləmə and Gvyvma, *dzwá-* in Gwaandama²⁷⁰), which is the most common source for diminutives (Jurafsky 1996: 564, Di Garbo 2013: 117). The origin of the other morpheme, *dá-*, has only been hypothesised so far. Two scenarios are likely: it may have derived from *zwá-/dzwá-* ‘child’ or from the NF class suffix L, which has an allomorph *-d* in Gvyvma. NF class L in Nvngvrama is also mentioned by Fiedler (2021) as “probably [the] only means for expressing diminutives” (see below).²⁷¹ However, *dá-* is preposed, whereas NF classes are marked by suffixes.²⁷²

The diminutive markers *zwá-/dzwá-* and *dá-* are often combined with animate nouns, triggering a semantic head shift from the preposed element to the animate noun (cf. Malchukov 2000). This process is not compounding because the modifying noun does not agree with the modified noun (cf. §4.4.3). Moreover, it is not a genitive construction because in such constructions both nouns mark their NF class suffix overtly (cf. §5.4.1).

While diminutive forms with the preposed element *zwá-/dzwá-* are mostly found in the wordlists, diminutives with *dá-* were used more frequently in other sources, such as [B-N1] to [B-N4] and in my own research. This may indicate a recent shift or

²⁷⁰ In Gwaandama the root of ‘child’ is *dzwǎ́-*. It changes, however, to *dzwá-* in ‘childhood’ [WL-N1] and in some sources in the plural for ‘children’ (e.g. in Hiraki 1986: 132, 191).

²⁷¹ However, when comparing the examples below in which the NF class remains unchanged, it contradicts Fiedler’s statement (2021) (cf. Elstermann et al. 2021: 330).

²⁷² Compare also e.g. Tula, in which diminutives can be formed, among other possible strategies, by adding the affixes “*DV-.-Ø/TV-..SFX*” (Elstermann 2021: 64).

grammaticalisation process from the former to the latter.²⁷³ Examples of the diminutive are depicted in the following.

- | | |
|------------------|---|
| Deeləmə | |
| (302) | <p><i>bəlĩ-w-ə</i>
cow-W-REF
'cow'</p> |
| | <p><i>zwa-bəlĩ-w-ə</i>
DIM-cow-W-REF
'calf' [WL-D2]</p> |
| (303) | <p><i>yàpıl-w-à</i>
sheep-W-REF
'sheep'</p> |
| | <p><i>zwa-yapıl-w-a</i>
DIM-sheep-W-REF
'ewe' [WL-D2]</p> |
| (304) | <p><i>míyà-w-à</i>
goat-W-REF
'goat'</p> |
| | <p><i>dá-míyà-w-à</i>
DIM-goat-W-REF
'kid'</p> |
| Gvyvma | |
| (305) | <p><i>ɲv-w-a</i>
grain-W-REF
'grain' [WL-G1]</p> |
| | <p><i>zwa-ɲv-w-a</i>
DIM-grain-W-REF
'bird' [WL-G1]</p> |
| (306) | <p><i>ɲǎ-w-á</i>
flesh-W-REF
'flesh, meat'</p> |
| | <p><i>zwa-ɲǎ-w-a</i>
DIM-flesh-W-REF
'lip' [WL-G1]</p> |
| (307) | <p><i>zwĩ-y-è</i>
child-Y-REF
'child'</p> |
| | <p><i>dá-zwĩ-y-è</i>
DIM-child-Y-REF
'small child, baby'</p> |
| (308) | <p><i>zàlí-y-á</i>
youth-Y-REF
'youth, young adult'
(from about 18 years old)</p> |
| | <p><i>dá-zàlí-y-á</i>
DIM-youth-Y-REF
'teenager'
(about 12 to 15 years)</p> |
| Gwaandama | |
| (309) | <p><i>swĩyá-w-á</i>
chicken-W-REF
'chicken'</p> |
| | <p><i>dzwá-swĩyá-w-á</i>
DIM-chicken-W-REF
'chick' [WL-N1]</p> |
| (310) | <p><i>bàlǎ-w-à</i>²⁷⁴
hare-W-REF
'hare' [WL-N1]</p> |
| | <p><i>dá-bàlǎ-w-à</i>
DIM-hare-W-REF
'rabbit' [WL-N1]</p> |

²⁷³ One example in Gvyvma suggests that the two prefixes may indicate a small semantic difference, namely 'young of age' as opposed to 'small size'. However, counterexamples, such as the Deeləmə example (304), also exist.

²⁷⁴ In Sabe (2014: 51f.) it is *bələnwə*.

- (311) *núsún-b-à* *dá-núsún-b-à*
 elder-B-REF DIM-elder-B-REF
 ‘elders’ [WL-N1] ‘matured people’ [B-N4]

In some cases, both diminutive markers occur in the data, as shown in the following examples. In the Gwaandama example (314), both preposed elements even co-occur.

- Deeləmə**
 (312) *filá-w-à* *zwa-filá-w-a* / *dá-filá-w-à*
 chicken-W-REF child-chicken-W-REF DIM-chicken-W-REF
 ‘chicken’ ‘chick’ [WL-D2]/own data

- Gvyvma**
 (313) *swiyá-w-á* *zwa-swiyá-w-a* / *da-swiyá-w-a*
 chicken-W-REF child-chicken-W-REF DIM-chicken-W-REF
 ‘chicken’ ‘chick’ [WL-G1]

- Gwaandama**
 (314) *mìyá-w-á* *dá-dzwá-mìyá-w-à*²⁷⁵ / *dá-mìyá-w-á*
 chicken-W-REF DIM-child-chicken-W-REF DIM-goat-W-REF
 ‘goat’ ‘kid’ [WL-N1]/own data

In some instances, the NF class changes when the diminutive marker is preposed.

- Deeləmə**
 (315) *gúbá-l-à* *dá-gúbá-hà*
 stone-L-REF DIM-stone-HA.REF
 ‘stone’ ‘coarse sand, gravel’ [WL-D2]

- (316) *bwáli-y-à* *zwa-bwáli-w-a*
 husband-Y-REF child-husband-W-REF
 ‘husband’ ‘warrior’ [WL-D2]

- Gvyvma**
 (317) *jyù-w-è* *dá-jiji-l-e* / *zwa-ji-l-e*
 goat-W-REF DIM-goat-L-REF DIM-goat-L-REF
 ‘goat’ ‘kid’ [WL-G1]

- (318) *bàlì-w-é* *zwà-bàlì-l-é*
 cow-W-REF child-cow-L-REF
 ‘cow’ ‘calf’ [WL-G1]²⁷⁶

- Gwaandama**
 (319) *gùbá-l-á* *dá-gùbá-há*
 stone-L-REF DIM-stone-HA.REF
 ‘stone’ ‘coarse sand, gravel’ [WL-N1]

²⁷⁵ In the plural without *dá-*: *dzwá-mìyá-hà* ‘kids’ [WL-N1].

²⁷⁶ But also: *zwà-bàlì-w-é* and *zwówá-wá* ‘calf’ [WL-G1], (Newman/Newman 1977b: 71), i.e. with NF class W. In Deeləmə and Gwaandama, it also belongs to NF class W.

- (320) *dá-wàhà-w-ā*²⁷⁷ *hà* *yí* *á* *Pwáláí*
 DIM-tree-W-REF COP there SPAT Pwalali
 ‘There is a little tree there at Pwalali’ [B-N1]

Dá- can also be prefixed to proper nouns to indicate smallness.

- Gwaandama**
- (321) *yíná* *yìn* *dúú*²⁷⁸ *dá-Tàráyò*
 3SG.SBJ 3SG.SBJ follow DIM-Taraju
- ká* *dù-w-á=nà*
 with rain-W-REF=CF
 ‘it is him following little Taraju’s way of rain-making’ [B-N1]

4.4 Agreement classes and gender

4.4.1 Overview of agreement classes and genders

Agreement refers to “a set of noun forms that share an identical behaviour across all agreement contexts of a given system” (Güldemann/Fiedler 2019: 98). Agreement classes are established based on the marking of noun features on agreement targets, such as adjectives, demonstrative proforms and numerals²⁷⁹. Although the nouns within an agreement class may not necessarily share the same features, such as number, they often do. According to Güldemann and Fiedler (2019: 98), an agreement class is a visible manifestation of various grammatical features that are typically merged together.

Nvngvrama exhibits both internal and external noun phrase agreement. External agreement, also referred to as NP-agreement, occurs outside of the noun phrase with the head noun, and is present with adjectival predicates (cf. §7.3.2.1) and subject agreement marked by prefixes on the verbal predicate. However, object agreement marking is absent. Internal noun phrase agreement, also known as N-agreement, is a pervasive phenomenon in Nvngvrama. Agreement is either marked by prefixes or suffixes, but these are not always the same in the varieties. In such cases, Gvyvma always differs from Deeləmə and Gwaandama. For instance, possessive pronouns in Deeləmə and Gwaandama have a prefixing agreement marker, whereas it is suffixing in Gvyvma.

The table below provides an overview of the kind of internal agreement affixes used in the three varieties for different attributes.

²⁷⁷ ‘Tree’ is *wàhàkà* in NF class KA.

²⁷⁸ Long vowels generally do not occur in Nvngvrama. The second vowel may be the ventive.

²⁷⁹ With the exception of numerals such as ‘eleven’, ‘twenty-one’, ‘thirty-one’ etc. in which the numeral ‘one’ determines the agreement marker instead of the noun’s number (cf. §4.4.5 for examples).

		Deeləmә	Gvyoma	Gwaandama
Adjectives		suffix	suffix	suffix
Compounds		suffix	suffix	suffix
Ordinal numerals		suffix	suffix	suffix
Cardinal numerals		prefix/ suffix/ invariable	prefix/ invariable	prefix/ suffix/ invariable
Possessive pronouns		prefix	suffix	prefix
Demonstrative proforms		prefix	prefix	prefix
Relative marker		prefix	prefix	prefix
Interrogative proforms	‘which?’	prefix	prefix	prefix
	‘how many/much?’	prefix	prefix	prefix
	‘whose?’	prefix	prefix	prefix

Table 54. Agreement affixes on attributes

The agreement markers in the three varieties, whether they are prefixes or suffixes, are often very similar to the NF class suffixes. However, there are some exceptions, such as the agreement markers in Gvyoma that occur with demonstrative proforms, the interrogative proform for ‘which’ and the relative marker.²⁸⁰ The forms of the agreement markers are summarised in the following tables. Since Nungvrama has progressive ATR vowel harmony, prefixes do not change to the ATR value of the stem. However, when the agreement marker is a suffix, the vowels harmonise with the ATR value of the respective stem (denoted by a capital letter *A*).

²⁸⁰ Compare also neighbouring Tula-Waja languages, such as Dijim, Waja and Tula, where both prefixes and suffixes occur as agreement markers. However, the phonic forms of the prefixes often differ significantly from the suffixes (Kleinewillinghöfer 1991: 150ff., Elstermann 2021: 38, Ajede 2022).

AGR in Deeləmā	Adjectives, compounds, ordinal numerals, cardinal numerals (suffixes)	Cardinal numerals (prefixes), interrogative proforms ('how many/much')	Possessive pronouns, interrogative proforms ('which', 'whose')	Demonstrative proforms	Relative clause marker²⁸¹	Subject agreement²⁸²
1	-yÀ	-	yá-	yì-	yè	á-
2	-bÀ	b-	bá-	bì-	bè	bá-
3	-wÀ	-	wá-	wì-	wè	á-
4	-hÀ	há-	há-	hǐ-	hè	bá
5	-lÀ	-	lá-	lì-	lè	á-
6	- 'À ²⁸³	á- / Ø-	á-	ǐ-	è	á-
7	-kÀ	-	ká-	kì-	kè	á-
8	-tÀ	tá-	tá-	tì-	tè	á-
9	-mÀ	-	má-	mì-	mè	á-

Table 55. Agreement markers in Deeləmā

²⁸¹ The relative clause marker -è has merged with the agreement markers (cf. §3.6.7).

²⁸² The subject agreement markers here and in the following two tables occur in the factative. With other aspects, the subject agreement markers merge with TAM markers, cf. §6.3.3 and 6.3.6.

²⁸³ For a glottal stop before a vowel, cf. §2.3.3 and §4.2.10.

AGR in Gvyvma	Adjectives, compounds, ordinal numerals, possessive pronouns	Cardinal numerals, interrogative proforms ('how many/much')	Demonstrative proforms, interrogative proforms ('which')	Relative clause marker ²⁸⁴	Subject agreement
1	-yÁ	y-	ǐ- ²⁸⁵	ǐ	á-
2	-bÁ	b-	ib-	ib	bá- / bà-
3	-wÁ	w-	ú- / ŵ-	ŵ	á-
4	-hÁ	há-	áh- ²⁸⁶	áhà	bá- / bà-
5	-lÁ	l-	il-	il	á-
6	-Á	á-	á-	á	á-
7	-kÁ	ká-	ík-	íkà	á-
8	-tÁ	á- ²⁸⁷	ít-	ità	á-
9	-mÁ	-	im-	im	á-

Table 56. Agreement markers in Gvyvma (own data and [S-G1, S-G2])

²⁸⁴ The relative clause marker has merged with the agreement markers (cf. §3.6.7).

²⁸⁵ When followed by another vowel, an approximant [j] is inserted between the two vowels.

²⁸⁶ When followed by another consonant, a vowel [á] or [ú] is inserted between the two consonants.

²⁸⁷ Unlike in all other agreement contexts, AGR class 8 resembles AGR class 6 with cardinal numerals and the interrogative marker for 'how many/much'.

AGR in Gwaandama	Adjectives / compounds / ordinal numerals	Cardinal numerals (prefixes/suffixes)	Possessive pronouns / interrogative proforms ('which', 'whose')	Demonstrative proforms	Interrogative proforms ('how many/much')	Relative clause marker ²⁸⁸	Subject agreement
1	-yA ²⁸⁹	-yÀ	yá-	yí- ²⁹⁰	-	yá	á-
2	-bA	b-	bá-	bí-	bí-	bá	bá- / bà-
3	-wA	-wÀ	wá-	wí-	-	wá	á-
4	-hA	hà-	há-	hí-	há-	hí	bá- / bà-
5	-lA	-lÀ	lá-	lí-	-	lá	á-
6	-A	∅-	á- / á̃-	í-	á-	í	bá- / bà-
7	-kA	-kÀ	ká-	kí-	-	ká	á-
8	-tA	tà-	tá-	tí-	tí-	tá	bá- / bà-
9	-mA	-	má-	mí-	-	má	á-

Table 57. Agreement markers in Gwaandama
(own data and Hiraki 1986: 131ff., [S-N1, S-N3, B-N1, B-N4])

²⁸⁸ The relative clause marker -á has merged with the agreement markers (cf. §3.6.7).

²⁸⁹ The AGR suffixes with adjectives and ordinal numerals have no inherent tone. They copy the tone from the preceding TBU, unless a definite marker follows, in which case it always acquires a high tone.

²⁹⁰ The vowel quality of AGR prefixes with demonstrative proforms is mostly /ɪ/, but can vary between high and mid front vowels and even a low vowel.

Elstermann et al. (2021: 331) argue that the agreement markers in Guyuma typically align with what they refer to as the ‘T-form’ of the nominal form classes, which they consider to be the underlying forms (cf. Elstermann et al. 2021: 328f., cf. footnote 231 in §4.2.1). However, Table 56 above, which displays the agreement markers in Guyuma, presents a more diverse picture. None of the different forms (‘T-form’, ‘A-form’ and a third form) is more dominant than the others. A similar picture can be seen in Deeləmə and Gwaandama, as shown in Table 55 and Table 57: The ‘T-form’ is used in about half of the agreement contexts in Deeləmə, while the ‘A-form’ is more common in Gwaandama than the ‘T-form’.

In Nvngvrama, almost all AGR classes have a one-to-one correspondence to an NF class, as shown in the following figure. The only exception is the conflation of NF classes \emptyset , Y, R (and F in Deeləmə) into a single agreement class.

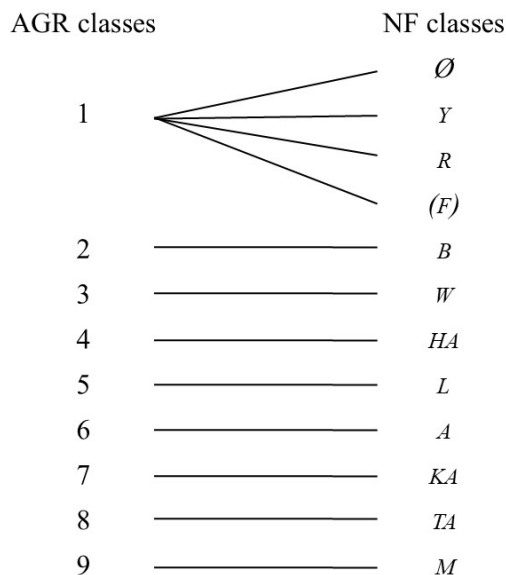


Figure 6. Agreement classes and nominal form classes in Nvngvrama

Once the AGR classes of a language have been established, it is possible to identify genders, the abstract form of one or two AGR classes. The gender system in Nvngvrama can be summarised as shown in the following figure. A gender comprised of two AGR classes is indicated by a straight line, while a gender that is the abstract form of one AGR class is marked by a circle. Major genders are indicated by solid lines and minor ones by dotted lines, similar to the deriflection classes in §4.2.14. Because agreement classes have a near one-to-one correspondence with NF classes, the gender system is almost identical to that of the deriflection system (cf. §4.2.14).

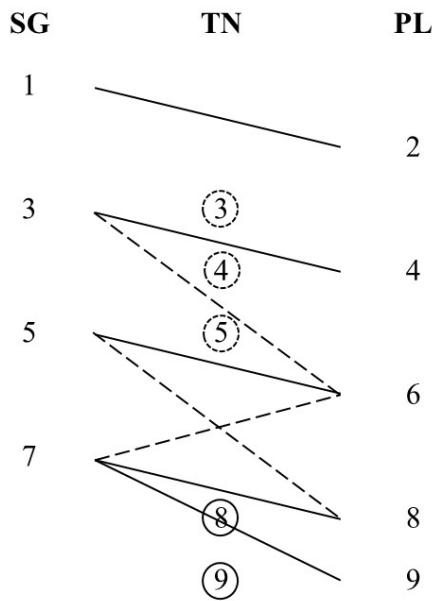


Figure 7. Agreement classes combining to genders in *Nvngvrama* (*Deeləmə*, *Gvɔvma* and *Gwaandama*)

4.4.2 Adjectives

When functioning as attributes in a noun phrase, *Nvngvrama* adjectives follow the head noun²⁹¹ and agree with the NF class of the noun²⁹². This does not apply to ideophones functioning as adjectives (cf. §3.5).

The following phrases and clauses in the three varieties exemplify agreement marking on adjectives.

- Deeləmə**
- (322) *yì-r* *sí-yà*
man-R.1 new-1
‘a new man’
- (323) *mà-hàni* *fǔ-l* *fírà-là*
2SG.IMP-have heart-L.5 kind-5
‘you have a kind heart’

²⁹¹ There are a very small number of exceptions to this word order. Cf. §5.4.2 for details.

²⁹² With two exceptions in the *Gwaandama* data, where no agreement occurs:

Gwaandama

tù-w-á *sənə*
speech-W-REF long
‘a long speech’ (Hiraki 1986: 145) (but: *yíl sənə-kə* ‘a long road’ (Hiraki 1986: 146))

yím-l-ə *kù* *yì-b* *wùlin=nà*
death-L-REF kill people-B all=CF
‘death has finished all people’ (lit. death killed all people) [B-N4]

- (324) *zóból-b-à* *zá-bà* *bá-zù* *yàlakká*
 boy-B.2-REF all-2 2-go.VEN today
 ‘all boys came today’

Nvngvrama

- (325) *á-wú* *zwá-b* *brè-bé*
 3SG-bear child-B.2 many-2
 ‘she had born many children’

- (326) *lèngèlèrè-l-è* *kàrkàr-lá*
 book-L.5-REF holy-5
 ‘holy book, bible’

- (327) *sìngílá-w* *cú-wé=ù*
 sheep-w.3 other-3=DEF
 ‘the other sheep’

Gwaandama

- (328) *tsù-l* *mwára-lá*
 heart-L.5 big-5
 ‘a big heart’

- (329) *bélí* *fàrà-wá=ò*
 cow.3 red-3=DEF
 ‘the red cow’ [S-N3]

- (330) *dǔ* *fǔrà-yà*
 man.1 kind-1
 ‘a kind man’ (Hiraki 1986: 146)

4.4.3 Compounds

In certain languages, it is possible to modify one noun with another without indicating a possessive meaning (Dryer 2007b: 174). This is also the case in Nvngvrama, although it appears not to be a very productive category. A syntactic compound in Nvngvrama is formed through a juxtaposition, with the modified noun preceding the modifying noun. The modifying noun behaves like an adjective by agreeing with the head noun through a suffix.

Of the few examples that occur in the data, four are presented below:

Deeləmə

- (331) *cá-kà* *zwá-y-à* *cá* *zwá-kà*
 leg-KA.REF child-Y-REF leg.7 child-7
 ‘leg’ ‘child’ ‘children’s leg’

- Gvyvma**
- (332) *nǎ-w-á* *kwànjè-l-é* *nàm* *kwànjè-wé*
 animal-W-REF bush-L-REF animal.3 bush-3
 ‘animal’ ‘wilderness, bush’ ‘wild/bush animal’
- (333) *má-m-á* *sír-w-á* *má-m* *sír-má*
 water-M-REF bee-W-REF water-M.9 bee-9
 ‘water’ ‘bee’ ‘honey’
- Gwaandama**
- (334) *yì-b-à* *kǔ-l-à* *yì-b* *kǔ-bà*
 person-B-REF war-L-REF person-B.2 war-2
 ‘men, people’ [WL-N1] ‘war’ [WL-N1] ‘men of war, warriors’
 (Hiraki 1986: 109)

Genitive constructions differ from compounds in that each noun retains its NF class. For instance, compare example (335), which is a compound, with example (336), which is a genitive construction.

- Deelomə**
- (335) *cǎ* *zwá-kà*
 leg.7 child-7
 ‘children’s leg’
- (336) *cǎ-ká* *zwá-yà*
 leg-KA.7.DEF child-Y.1
 ‘the leg of a child’

4.4.4 Ordinal numerals

Ordinal numerals behave like adjectives, following the head noun in a noun phrase and showing suffixal agreement marking in all three varieties. For an overview of ordinal numerals, cf. §3.7.3.

- Deelomə**
- (337) *ná-kà* *fǐngárá-kà*
 hand-KA.7 first-7
 ‘first hand’
- (338) *yí-r* *nó-yá-yà*
 person-Y.1 five-ORD-1
 ‘fifth person’
- (339) *yí-r* *kô-yà*
 person-Y.1 ten-1
 ‘tenth person’

- Gyuma**
- (340) *zi-ká* *kilàwǝ́-ká=ǝ́*
town-KA.7.REF first-7=DEF
‘the first town’
- (341) *zi-ká* *ná-nákwàyi-ká=ǝ́*
town-KA.7.REF ORD-three-7=DEF
‘the third town’
- (342) *sìngilá-w* *nwóm* *yír* *nàsír-wá=ǝ́*
sheep-W.3 ten CON two-3=DEF
‘twelfth sheep’
- Gwaandama**
- (343) *yìnǝ́* *jùn-l-à* *cíngírí-lá=ǝ́*
3SG.SBJ famine-L.5-REF first-5=DEF
‘this was the first famine’ [B-N1]
- (344) *dzwí-y* *káwíndá-yá=ǝ́*
child-Y.1 first-1=DEF
‘the first child’ (Hiraki 1986: 142)
- (345) *tswá-w* *tsír-yá-wá=ǝ́*
house-W.3 two-ORD-3=DEF
‘the second house’ (Hiraki 1986: 142)
- (346) *yì-r* *kǝ́wàr-yá=ǝ́*
person-Y.1 ten-1=DEF
‘the tenth person’ (Hiraki 1986: 142)/[S-N1]

4.4.5 Cardinal numerals

Cardinal numerals and their formation rules were presented in §3.7.2. They show a diverse agreement marking behaviour, unlike ordinal numerals. Some cardinal numerals take prefixes, others take suffixes, and yet others do not agree with the head noun. Deelǝmə and Gwaandama are very similar but differ significantly from Gyuma. Compare the overview in the following table which shows whether the agreement marker occurs as a suffix, a prefix or whether the numeral is invariable.

	Deeləmə	Guyvma	Gwaandama	
‘one’	suffix	prefix	suffix	
‘two’	prefix			prefix
‘three’				
‘four’				
‘five’				
‘six’	invariable			invariable
‘seven’				
‘eight’		invariable		
‘nine’		prefix		
‘ten’, ‘twenty’, etc.		invariable		
‘hundred’				
‘thousand’			?	

Table 58. Agreement affixes on cardinal numerals

The sections below provide detailed examples of how cardinal numerals are marked for agreement.

Deeləmə

In Deeləmə, only numeral ‘one’ marks agreement with a suffix.

- (347) *bàlǐ* *kàlǐ-wà*
cow.3 one-3
‘one cow’

Numerals from ‘two’ to ‘five’ use prefixes, so the numeral root is preceded by the numeral marker and the agreement marker.

- (348) *bàlǐ-há* *nà-há-kwá*
cow-HA.4.DEF NUM-4-two
‘the two cows’

- (349) *bàlǐ-há* *nà-há-sár*
cow-HA.4.DEF NUM-4-three
‘the three cows’

Numerals from ‘six’ to ‘ten’, the decimal numerals such as ‘twenty’ and ‘thirty’ as well as ‘hundred’ and ‘thousand’ are all invariable and therefore show no agreement with the head noun.

- (350) *bàlǐ-há* *sátàn*
cow-HA.DEF six
‘the six cows’

- (351) *bàlǐ́-há* *kô*
 cow-HA.DEF ten
 ‘the ten cows’
- (352) *bàlǐ́-há* *kótà̀nátà̀kwá*
 cow-HA.DEF twenty
 ‘the twenty cows’
- (353) *bàlǐ́-há* *táwnò*
 cow-HA.DEF thousand
 ‘the thousand cows’

For complex numerals, agreement is marked on the last element in the same way as it would be if it was a simple numeral, i.e. either with a prefix or a suffix, or it is not marked.

- (354) *bàlǐ́-há* *kô* *yír* *nà-há-kwá*
 cow-HA.4.DEF ten CON NUM-4-two
 ‘the twelve cows’

Complex numerals with ‘one’ (e.g. ‘eleven’ and ‘twenty-one’) do not agree in number with the head noun (i.e. plural). Instead, they agree with the NF class of the respective singular noun.

- (355) *bàlǐ́-há* *kô* *yír* *kàlǐ́-wà*
 cow-HA.3.DEF ten CON one-3
 ‘the eleven cows’
- (356) *bàlǐ́-há* *kótà̀nátà̀kwá* *yír* *kàlǐ́-wà*
 cow-HA.3.DEF twenty CON one-3
 ‘the twenty-one cows’

Guyuma

Agreement marking on numerals in Guyuma shows only two strategies: prefixation and invariability. Numerals from ‘one’ to ‘seven’ and ‘nine’ mark agreement with prefixes.

- (357) *bàlǐ́-w-á* *nà-w-kàl*
 cow-W.3-REF NUM-3-one
 ‘one cow’
- (358) *bàlǐ́-há* *ní-nà-há-kwà̀yí*
 cow-HA.4.REF four-NUM-4-one
 ‘seven cows’
- (359) *bàlǐ́-há* *ní-nà-há-nó*
 cow-HA.4.REF four-NUM-4-five
 ‘nine cows’

Complex numerals entailing these numerals (‘one’ to ‘seven’ and ‘nine’) also have a prefixing agreement marker.

(360)	<i>bàlǐ́-há</i> cow-HA.4.REF 'twelve cows'	<i>nwôm</i> ten	<i>yírù</i> CON	<i>nà-há-sìr</i> NUM-4-two
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As in Deeləmə, complex numerals with 'one' show agreement marking with the singular NF class of the head noun, even though the head noun is marked with the plural NF class in the noun phrase.

(361)	<i>bàlǐ́-há</i> cow-HA.3.REF 'eleven cows'	<i>nwôm</i> ten	<i>yírù</i> CON	<i>nà-w-kàl</i> NUM-3-one
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(362)	<i>bàlǐ́-há</i> cow-HA.3.REF 'twenty-one cows'	<i>nátásìr</i> twenty	<i>yírù</i> CON	<i>nà-w-kàl</i> NUM-3-one
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All other numerals are invariable, i.e. they show no agreement with the head noun.

(363)	<i>bàlǐ́-há</i> cow-HA.REF 'eight cows'	<i>nítìn</i> eight		
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(364)	<i>bàlǐ́-há</i> cow-HA.REF 'ten cows'	<i>nwôm</i> ten		
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(365)	<i>bàlǐ́-há</i> cow-HA.REF 'twenty cows'	<i>nátásìr</i> twenty		
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(366)	<i>bàlǐ́-há</i> cow-HA.REF 'hundred cows'	<i>púlàwè</i> hundred		
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Gwaandama

Gwaandama can be compared to Deeləmə, as mentioned above. Its agreement marking with prefixes and suffixes, as well as its invariability, apply to the same numerals as in Deeləmə: 'One' agrees with the head noun through a suffix.

(367)	<i>gihǐ́-y</i> wife-Y.1 'one wife' [S-N3]	<i>kàlì-yà</i> one-1		
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The agreement markers 'two' to 'five' are prefixed.

(368)	<i>belǐ́-hə</i> cow-HA.4 'two cows' [S-N3]	<i>na-ha-tsir</i> NUM-4-two		
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Other numerals, such as ‘six’ to ‘nine’, ‘ten’, ‘twenty’ and ‘hundred’ are invariable.

- (369) *fin-tá* *nàkónàkwì*
flower-TA six
‘six flowers’
- (370) *yì-b* *nánànwà*
man-B fifty
‘fifty men’ (Hiraki 1986: 142)/[S-N1]
- (371) *dzùrǹà-hà* *kùlò* *kàlíwà*
scorpion-HA hundred one
‘one hundred scorpions’

There is little data on complex numerals. The examples that do occur in the data are ambiguous, so more research is needed.

4.4.6 Possessive pronouns

Attributive possessive constructions with a possessive pronoun follow the same order as genitive constructions: the noun with the NF class suffix is the possessum, which precedes the pronoun, the possessor. The pronoun shows agreement marking with the noun, which is a prefix in Deeləmə and Gwaandama and a suffix in Gvyuma (as displayed in the overview in §3.6.4).

There are a few cases in the data where the agreement prefix on a possessive pronoun is not obligatory. These occur especially with kinship terms such as ‘father’, ‘brother’ and ‘wife’²⁹³.

- Deeləmə**
- (372) *kùrí-w-ə̀* *ɲì*
father-W-REF 1SG.POSS
‘my father’
- Gvyuma**
- (373) *mwá-rì-y* *ɲí*
older.brother-Y 1SG.POSS
‘my (older) brother’
- Gwaandama**
- (374) *nə-mwàb* *tswá-w-á* *gíhí-y* *ɲú*
1SG-build house-W-REF woman-Y 1SG.POSS
‘I built a house for my wife’

²⁹³ In S-N4, there are no agreement prefixes on possessive pronouns, regardless of the semantics of the head noun.

- (375) *wé*²⁹⁴ *mù*
 father 2SG.POSS
 ‘your father’

Deeləmə

As described above, the possessive pronoun, which takes a prefix as an agreement marker, follows the noun. Since the agreement marker is a prefix and ATR vowel harmony in Nungvrama is progressive, the vowel of the agreement marker is not adapted to the vowel of the possessive pronoun. Instead, it is always /á/ (with a high tone), regardless of the ATR value of the possessive pronoun (e.g. (378) where vowels of both ATR sets occur together).

- (376) *ǰǰ-l* *lá-nì*
 heart-L.5 5-1SG.POSS
 ‘my heart’

- (377) *ní-m* *má-mò*
 milk-M.9 9-2SG.POSS
 ‘your (sg) milk’

- (378) *hàní-záká* *tàbí* *súndí* *á-yè*
 3SG-like shoe.6 old 6-3SG.POSS
 ‘s/he likes his/her old shoes’

- (379) *mwá-rí-y* *yá-bò*
 older.brother-Y.1 1-3PL.POSS
 ‘their older brother’

Guyvma

Unlike in Deeləmə and Gwaandama, the agreement marker in Guyvma follows the pronominal root. Since the ATR vowel harmony is progressive, the agreement marker, which always has a high tone, changes its vowel according to the ATR value of the possessive pronoun (compare examples (383) and (384)).

²⁹⁴ The underlying form is /wá-y/. The speaker clearly pronounced it [wé], which could be caused by reciprocal assimilation (also called coalescence) of [á] and [j]/[ɿ]. Other examples in the data suggest that the occurrence of [wáy] or [wé] is in free variation, e.g.

wá-y *nú* *hàní* *bílǐ* *kwáháná-há* *nà-hà-nǐr*
 father-Y 1SG.POSS COP cow.4 work-4 NUM-4-four
 ‘my father has four oxen for ploughing’ (Hiraki 1986: 181)

- (380) *g̀̀b* *ná-ká* *m̀̀r-ká*
follow hand-KA.7.REF 1PL.INCL.POSS-7
‘follow our hand’ (expression used to show direction)
- (381) *cáw-tà* *nà-á-sìr* *j̀̀n-té*
leg-TA.8 NUM-8-two 1SG.POSS-8
‘my two legs’
- (382) *ná-á* *yè-é*
hand-A.6.REF 3SG.POSS-6
‘his/her hands’
- (383) *mwári-y* *j̀̀n-yé*
older.sibling-Y.1 1SG.POSS-1
‘my older sibling’
- (384) *mwári-y* *m̀̀i-yá*
older.sibling-Y.1 2SG.POSS-1
‘your (sg) older sibling’

The singular possessive pronouns *j̀̀n-*, *m̀̀i-* and *ỳ̀n-* undergo an assimilation process, as described in §2.1.3.4. When they are followed by the agreement marker *-wA*, the vowel of the pronoun changes from a front vowel to a back vowel (thus [*u*] or [*v*]).

- (385) *k̀̀r̀̀u-w* *j̀̀n-wé*
father-W.3 1SG.POSS-3
‘my father’
- (386) *bá-tír-w* *ỳ̀n-wé*
battery-W.3 3SG.POSS-3
‘his/her battery’

Gwaandama

Like Deelámə, Gwaandama’s possessive pronouns take prefixes to agree with the head noun. The agreement prefixes always have a high tone.

- (387) *sẁ̀yá-w-á* *wá-j̀̀v*
hen-W.3-REF 3-1SG.POSS
‘my hen’ (Hiraki 1986: 128)
- (388) *ǹ̀i-á* *á-m̀̀v*
thing-A.6 6-2SG.POSS
‘your (sg) thing(s)’
- (389) *tán-l-á* *lá-ỳ̀v*
room-L.5-REF 5-3SG.POSS
‘his/her room’ (Hiraki 1986: 129)

Sabe (2014: 43) states that the agreement suffixes always take the vowel /a/, regardless of the ATR value of the preceding noun. While the statement about the vowel is true, the reason for this cannot be found in a preceding lexeme because the ATR vowel harmony does not extend beyond word boundaries in Nvngvrama. Rather, the reason for this lies in the position of the agreement marker, as described for Deeləmə above. Since the agreement marker precedes the possessive pronoun and ATR vowel harmony is progressive, no changes occur on the agreement marker.

4.4.7 Demonstrative proforms

Demonstrative proforms, presented in §3.6, follow their head noun in a noun phrase or can replace it. In both instances, a prefixing concord marker is present, referring to the noun class of the head noun (whether overtly present or not). Thus, substantial demonstrative proforms stand alone, as shown in the following examples.

Gvɔvma

- (390) *il-a* *il* *ba-dwab=i* *zelem-kə*
 5-DEM1 5.REL 3PL-pull.out=3SG.OBJ tongue-KA
 ‘the one who had his tongue pulled out...’ (lit. this one who they pulled the tongue out of) (Newman 1976: 60)

Gwaandama

- (391) *ká-bî* *yàkí* *dzwà-kà* *nə-dzwá* *mù=nə*
 7-DEM1 now question-KA 1SG-ask 2SG.OBJ=CF
 ‘this one now, the question I ask you...’ [B-N1]

Deeləmə

Agreement with demonstrative proforms in Deeləmə differs somewhat from other agreement markers in terms of vowel quality. Prefixing agreement markers that occur with interrogative proforms and possessive pronouns have the vowel /á/ (cf. §4.4.1), but with demonstrative proforms, they have a high front vowel /i/ (also note the tone difference).

- (392) *bátír-l-à* *lì-bó* *hà=n* *hámà-là*
 battery-L.5-REF 5-DEM1 COP=N good-5
 ‘this battery is good’

- (393) *bátír-l-à* *lì-wà*
 battery-L.5-REF 5-DEM2
 ‘that battery’

Guyuma

In Guyuma, the agreement prefixes for demonstrative proforms differ from the general ones. All of them add a vowel or nasal at the onset, which is not present in agreement markers elsewhere (cf. Table 56 in §4.2.15).

- | | | |
|-------|---|------------------------|
| (394) | <i>yí-m</i>
milk-M.9
'this milk' | <i>ím-à</i>
9-DEM1 |
| (395) | <i>yí-m</i>
milk-M.9
'that milk' | <i>ím-wà</i>
9-DEM2 |
| (396) | <i>zwí-y</i>
child-Y.1
'this child' | <i>ǐ-à</i>
1-DEM1 |
| (397) | <i>zwí-y</i>
child-Y.1
'that child' | <i>ǐ-wà</i>
1-DEM2 |
| (398) | <i>zwá-b</i>
child-B.2
'these children' | <i>íb-à</i>
2-DEM1 |
| (399) | <i>zwá-b</i>
child-B.2
'those children' | <i>íb-wà</i>
2-DEM2 |

To express a sense of belonging or to refer back to a previously mentioned entity, *-mà* can be added to the demonstrative proform or used on its own, as the following examples illustrate.

- | | | | | | | |
|-------|---|-----------------------------------|------------------------------|--------------------------------|------------------------------|----------------------|
| (400) | <i>dékìr</i>
when
'when he (Hyena) had married the [that his] girl...' | <i>á-wár-tír</i>
3SG-marry-RLT | <i>mwa-ǐ</i>
wife-Y.1 | <i>ǐ-à-mà</i>
1-DEM1-DEM3 | (B. Newman 1978: 33) | |
| (401) | <i>pó</i>
thigh.6
'those two thighs (out of sight, previously mentioned)' | <i>nà-à-sìr</i>
NUM-6-two | <i>á-à-mà</i>
6-DEM1-DEM3 | | | |
| (402) | <i>zí-tá</i>
snake-TA.8.REF
'those snakes (out of sight, previously mentioned)' | <i>tá-mà</i>
8-DEM3 | | | | |
| (403) | <i>dékìr</i>
when
'when the [previously mentioned] wife picked up the pot...' | <i>mwǎ</i>
wife.1 | <i>yá-mà</i>
1-DEM3 | <i>á-sí-r</i>
1-pick.up-RLT | <i>sùtá-l-à</i>
pot-L-REF | (B. Newman 1978: 33) |

Gwaandama

Gwaandama is again similar to Deeləmə in that the vowel of the agreement marker is often, though not always, /i/. As shown in example (407), the shape of the agreement marker *ĩ-* also differs from the markers of the other noun classes.

- (404) *yì-b-á* *bá-bì* *nà-b-tsîr*
 man-B.2-REF 2-DEM1 NUM-2-two
 ‘these two men’ (Hiraki 1986: 137)
- (405) *yíl* *sínà-ká* *ká-bì*
 road.7 long-7 7-DEM1
 ‘this long road’
- (406) *síyá* *hĩ-bì*
 chicken.4 4-DEM1
 ‘these chickens’
- (407) *fín-á* *ĩ-bù* *ĩ-mà*
 flower-A.6 6-3PL.POSS 6-DEM3
 ‘those flowers of them’ (Hiraki 1986: 141)
- (408) *nán-nìm* *làmtà-w-á* *wā-m=nà*
 3SG.SR-receive bag-W.3-REF 3-DEM3=CF
 ‘s/he took/received that bag’ [B-N1]

The demonstrative *kwã-* in Gwaandama is unique in that it takes an agreement suffix instead of a prefix, unlike all other demonstratives.

- (409) *wàhà-kā* *kwã-kà*
 tree-KA.7 DEM2-7
 ‘that tree’ [B-N1]

4.4.8 Interrogative proforms

The interrogative proforms were summarised in §3.6.6. These proforms differ from interrogative particles in that they show agreement with the head noun. It is worth noting that the interrogatives with agreement marking are those that correspond to demonstrative proforms (e.g. ‘which X?’ – ‘this X, these X’), cardinal numerals (e.g. ‘how much/many?’ – ‘five X’) and possessive pronouns (e.g. ‘whose X?’ – ‘my X, your X’).

The following sections describe and illustrate agreement marking on interrogative proforms in the three varieties.

which?

The interrogative proforms *-yà* in Deeləmə and Gvyvma and *-yi*²⁹⁵ in Gwaandama are used to form the question ‘which?’. These proforms take a prefix that agrees with the respective noun.

- Deeləmə**
- (410) *g̀v̀b̀á-l* *lá-yà*
stone-L.5 5-which
‘which stone?’
- (411) *ńí-m* *má-yà*
milk-MA.9 9-which
‘which milk?’
- Gvyvma**
- (412) *ná-ká* *ík-yà*
hand-KA.7.REF 7-which
‘which hand?’
- (413) *sẁỳỳá-w* *ǔ-yà*
chicken-W.3 3-which
‘which chicken?’
- Gwaandama**
- (414) *bí-l-á* *lá-yí*
iron-L.5-REF 5-which
‘which type of iron?’ [B-N1]
- (415) *dzwá-b* *gahǔ-b-á* *bà-yí* *ma-jirá=nà*
child-B.2 woman-B.2-REF 2-which 2SG-like=CF
‘which girls do you like?’ (Hiraki 1986: 132), [S-N1]
- (416) *mátv-w-á* *wa-yí* *hà-r* *wá-mv=na*
car-W.3-REF 3-which COP-? 3-2SG.POSS=CF
‘which car is yours?’ (Hiraki 1986: 132)

how many/much?

Deeləmə, Gvyvma and Gwaandama use *nà-X-bánà*, *nà-X-bà* and *nà-X-bì* respectively, to indicate the question ‘how many/much?’. The letter ‘X’ represents the agreement marker used in a clause, while *nà-* is the numeral marker found in numerals (cf. §3.6.7). It is noteworthy that Nvngvrama uses the same expression for both countable and uncountable nouns (Dryer 2007b: 176).

²⁹⁵ The tone sometimes deviates in Gwaandama.

Deeləmə

(417) *mìyá-hà* *mə̀* *nà-há-bánà*
 goat-HA.4 2SG.SBJ NUM-4-how.many
 ‘how many goats do you have?’

(418) *bá-‘á* *mə̀* *ná-bánà*
 money-A.6 2SG.SBJ NUM.6-how.many
 ‘how much money do you have?’

Guyuma

(419) *bèlì-hé=ù* *nà-há-bà*
 cow-HA.4=DEF NUM-4-how.many
 ‘how many cows’

(420) *ná-tá* *nà-á-bà*
 hand-TA.8.REF NUM-8-how.much
 ‘how many hands?’ (used for measurements)

(421) *tán-d-á* *ñ-mwam-a* *swa* *na-a-ba*
 hut-L.5-REF 2SG.FUT-build-FV day.6 NUM-6-how.many
 ‘how many days does it take you to build a hut?’ (Newman 1976: 57)

Gwaandama

(422) *mà-‘à* *nà-á-bì*
 farm-A.6 NUM-6-how.many
 ‘how many farms?’ (Hiraki 1986: 98)

(423) *bál-tá* *nà-tí-bì*
 stick-TA.8 NUM-8-how.many
 ‘how many sticks?’ (Hiraki 1986: 98), [S-N1]

(424) *nà-bí-bì* *mə̀-kúru=nə̀*
 NUM-2-how.many 2SG-return=CF
 ‘how did you return so early?’ (lit. how much did you return?) [B-N1]

According to Dryer (2007b: 176), “[i]nterrogative expressions are generally treated grammatically like their corresponding noninterrogative expressions”. This is partly true for expressions with ‘how many/much’. When comparing possible answers to the questions above, some numerals take the same morphological shape as the interrogative term, i.e. numeral marker (*nà*) + agreement marker + root (cf. §4.4.3).

whose?

The question ‘whose?’ is formed with the proform *-wà* in Deeləmə²⁹⁶ and *-wì* in Gwaandama (meaning ‘who’) and takes an agreement prefix according to the respective

²⁹⁶ The shape of the particle in Deeləmə and Guyuma is identical to that of a demonstrative proform denoting remoteness. However, the form of the agreement marker differs from it.

noun. There is limited data on how ‘whose’ is expressed in Gyyuma, but a few examples suggest that it might be expressed with an invariable form *wada*.

Deeləmə

(425) *fɔwá* *wì-bá* *wá-wà*
 house.3 3-DEM1 3-who
 ‘whose house is this?’

(426) *zwá-b* *bì-bá* *bá-wà*
 child-B.2 2-DEM1 2-who
 ‘whose children are these?’

Gyyuma

(427) *mina* *zwama-y-a* *wada*
 2SG.SBJ daughter-Y.1-REF who
 ‘whose daughter are you?’ (Gen 24, 23) (Wycliffe Bible Translators n.d.)

(428) *jine* *yi-b-e* *wada*
 2PL.SBJ man-B.2-REF who
 ‘whose men are you?’ (Gen 32, 17) (Wycliffe Bible Translators n.d.)

Gwaandama

(429) *tswá-w-a* *wà-bí* *wá-wì*
 house-W.3-REF 3-DEM1 3-who
 ‘whose house is this?’ (Hiraki 1986: 132)

(430) *dòm-l-á* *lá-wì* *mè-kùbtè=nì*
 hat-L.5-REF 5-who 2SG-wear=CF
 ‘whose hat are you wearing?’ (Hiraki 1986: 132)

4.4.9 Relative clause marker

In Nvngvrama, the relative clause marker has merged with the agreement marker that refers to the relevant head noun, whether it is the subject or object of a clause. The relative clause marker can be reconstructed as **-è* in Deeləmə and **-á* in Gwaandama, and possibly as **-à* in Gyyuma (cf. §3.6.7).

Deeləmə

In Deeləmə, the agreement markers are considered to have merged with the relative clause marker **-è*.

(431) *yír-á* *yè* *á-swá* *nà-‘à=nà*
 woman-F.1.DEF 1.REL 1-farm.FV thing-A=CF
 ‘the woman who will be farming’

(432) *mìyá-há* *hè* *bá-jà* *kù-l=nà*
 goat-HA.4.DEF 4.REL 4.IMP-eat grass-L.5=CF
 ‘the goats which are eating grass’

(433) *ná-dv* *gùbá* *è*
 1SG-see stone.6 6.REL
 ‘I see the stones which...’

Guyuma

In Guyuma, the relative clause marker has merged with the agreement markers. The portmanteau morphemes with agreement classes 1, 2, 3, 5 and 9 show erosion of the relative marker, but it has not completely disappeared. agreement classes 3, 7 and 8, the first vowel of the portmanteau morpheme is a nasal vowel. The reason for this cannot be explained at this time as its distribution does not align with the NF class forms that are capable of being nasalised in Guyuma (cf. §4.2.7, §4.2.8, §4.2.11).

(434) *ná-dwú* *tí-kè* *íkà* *á-mwàr* *jùwà*
 1SG-see tree-KA.7 7.REL 7-grow big
 ‘I saw the tree which has grown big’

(435) *ná-dwú* *jíjá-há=ò* *áhà* *bà-jà* *nì-á=ò*
 1SG-see dog-H.4.REF=DEF 4.REL 4-eat thing-A.REF=DEF
 ‘I saw the dogs which have eaten’

(436) *ná-dwú* *mwá-b-á* *íb* *bá-swè* *nì-á=ò*
 1SG-see woman-B.2-REF 2.REL 2-farm thing-A.REF=DEF
 ‘I saw the women who were farming’

(437) *ná-dwú* *jíjá-w-á=ò* *ǔ* *á-jà* *nì-á=ò*
 1SG-see dog-W.3-REF=DEF 3.REL 3-eat thing-A.REF=DEF
 ‘I saw the dog which ate’

(438) *mwá-y-á=ò* *í* *à-swé* *nì-á=ò*
 woman-Y.1-REF=DEF 1.REL 1.IMP-farm.FV thing-A.REF=DEF
 ‘the woman who is farming’

There is some variation in the data regarding the form of the relative clause marker when combined with the agreement marker 6. The following examples from different sources illustrate this.

(439) *yíná* *nì* *á* *ná-kàsá*
 3SG.SBJ thing.6 6.REL 1SG-want.FV
 ‘it is the thing which I want’ (Newman/Newman 1977b: 7)

- (440) *swa* *ã* *na-nu*
heart.6 6.REL 1SG-hear.FV
'the hearts which I hear...' [S-G2]
- (441) *ná-nù-á* *swà* *á* *à-jà* *sù-w-à*
1SG-hear-FV heart.A.6 6.REL 6-eat life-W-REF
'I hear the hearts which beat' (lit. ...beat life)

In some examples in [S-G2] of the Gvyoma data, the relative marker appears to have merged with the subject agreement marker (cf. Elstermann et al. 2021: 332). However, in my research, it was always possible to distinguish them clearly (compare example (442) with example (443)).

- (442) *na-dwam* *tí-ka* *ãka=mwar* *mwar-ka*
1SG-see.CPL tree-KA.7 7.REL=grow grow-7
'I have seen the tree which grew big' [S-G2]
- (443) *nà-dwó* *tí-ká* *íkà* *á=mwàr* *jùwà*
1SG-see tree-KA.7 7.REL 7=grow big
'I saw the tree which grew big'

Gwaandama

Similar to Deelòmə, the agreement markers in Gwaandama have merged with the relative clause marker.

- (444) *dzwí-y-á* *yá* *támnà* *yá-w=nà*
child-Y.1-REF 1.REL play game-W=CF
'a child who played' [S-N1]
- (445) *làkì-w-á* *wá* *kamà=nà*
hoe-W.3-REF 3.REL break.CPL=CF
'a hoe which has been broken' [S-N1]

The relative clause markers that agree with head nouns belonging to NF classes HA and A have a different shape than all other markers. They are *hĩ* and *ĩ*²⁹⁷ respectively.

- (446) *sù-hé* *hĩ* *ná-dú=b=nà* *bà-hà* *fĩlĩ*
dog-HA.4 4.REL 1SG-see=3PL.OBJ=CF 4-COP small
'the dogs which I saw are small' [S-N3]
- (447) *ná-dwá=àmà* *wán-á* *ĩ* *kù-ná=nà*
1SG-see=CPL leaf-A.6 6.REL fall-PLU=CF
'I have seen the leaves which fell' [S-N3]

²⁹⁷ The sources spell these forms with nasals, such as *hím*, *hìŋ* and *ìŋ* in [S-N3] and *ím* and *ón* in Sabe (1995: 176, 186). I assume that the nasal consonants indicate nasal vowels that assimilate to the following consonant (compare §2.1.3.4), e.g. ...*nàm júsuŋhè hím bà d̀à nà* '...the elephants which ate' [S-N3].

- (448) *bá-túw=ámá* *nì-á* *í* *bà-jìrá=nà*
 3PL-say=CPL thing-A.6 6.REL 3PL-want=CF
 ‘they have said the thing that they want’ (Sabe 1995: 186)

Unlike in Deeləmə and Gvyuma, the subject agreement markers referring to the relativised noun are omitted (examples (444), (445), (447) and (449)), except for relativised nouns in NF classes B and HA (examples (446) and (448), compare also example (449) with example (450)).

- (449) *ná-dwá=ámá* *sù-w-á* *wá* *ḡà=ámá=nà*
 1SG-see=CPL dog-W.3-REF 3.REL eat=CPL=CF
 ‘I have seen the dog which has eaten’ [S-N3]

- (450) *ná-dwá=ámá* *sù-há* *hì* *bà-ḡà=ámá=nà*
 1SG-see=CPL dog-HA.3 4.REL 4-eat=CPL=CF
 ‘I have seen the dogs which have eaten’ [S-N3]

4.4.10 NP-agreement with the subject

All of the agreement targets described in the previous subchapters refer to noun phrase internal agreement. In Nungvrama, agreement outside of noun phrases only occurs with nouns or pronouns in subject position on verbs and copulas. The agreement targets are prefixes that attach to the verb or copula and may be the only representation of the subject, as can be seen in example (453) compared to examples (451) and (452) below. Agreement in number and person is obligatory in verbal clauses, with a few exceptions in the data that cannot be explained yet. However, it appears to be in decline in non-verbal clauses (cf. §7.3.2).

The following table shows the subject agreement markers (AGR) for first, second and third person that do not overtly refer to an NF class. It is striking that Deeləmə and Gwaandama are almost identical in the first and second person singular and plural, differing only in the vowel from those in Gvyuma. Most agreement markers have an inherent tone. This includes the 3SG.AGR in Deeləmə, although it obtains a low tone when the following TBU displays a high tone, which is known as regressive tonal dissimilation (cf. §2.2.2).²⁹⁸ The 3PL.AGR in Gvyuma and Gwaandama can have either a high or low tone, but the conditions for this are still unclear. It is also worth noting that 1PL.AGR and 2PL.AGR only differ in their tone in all three varieties. However, there are differences in the varieties: while in Gvyuma and Gwaandama, 2PL.AGR correlates with 1PL.INCL.AGR, it correlates with 1PL.EXCL.AGR in Deeləmə. The only distinction between subject agreement marking in verbal and non-verbal clauses is the absence of an overt 3SG.AGR in the latter.

²⁹⁸ An alternative analysis could be that the agreement marker has no inherent tone and always acquires a polar tone.

	Deeləmə	Gvyuma	Gwaandama
1SG.AGR	ná-	ná-	ná-
2SG.AGR	mà-	nà-	mà-
3SG.AGR	á- ²⁹⁹ (verbal clauses) Ø- (non-verbal clauses)	á- (verbal clauses) Ø- (non-verbal clauses)	á- (verbal clauses) Ø- (non-verbal clauses)
1PL.INCL.AGR	kà-	kà-	kà-
1PL.EXCL.AGR	ká-	ká-	ká-
2PL.AGR	ká-	kà-	kà-
3PL.AGR	bá-	bá- / bà-	bá- / bà-

Table 59. Subject agreement markers for first, second and third person³⁰⁰

The table below displays the agreement markers for the agreement classes 1 to 9. These markers are identical in form to 3SG.AGR and 3PL.AGR, but they refer to a specific noun or noun phrase with an NF class (examples are provided below). As mentioned before, it appears that agreement marking in non-verbal clauses is declining, as it is only overtly marked in agreement classes 2 and 4 in all three varieties.

	Deeləmə		Gvyuma		Gwaandama	
	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses
1	á-	Ø-	á-	Ø-	á-	Ø-
2	bá-	bá-	bá- / bà-	bá- / bà-	bá- / bà-	bá- / bà-
3	á-	Ø-	á-	Ø-	á-	Ø-
4	bá-	bá-	bá- / bà-	bá- / bà-	bá- / bà-	bá- / bà-
5	á-	Ø-	á-	Ø-	á-	Ø-
6	á-	Ø-	á-	Ø-	bá- / bà-	Ø-
7	á-	Ø-	á-	Ø-	á-	Ø-
8	á-	Ø-	á-	Ø-	bá- / bà-	Ø-
9	á-	Ø-	á-	Ø-	á-	Ø-

Table 60. Subject agreement markers in agreement classes 1 to 9³⁰¹

The following examples from Deeləmə illustrate the use of the agreement markers and highlight the differences between the two tables. In example (451), the agreement marker á- refers to the noun ‘child’ with NF class Y, which triggers agreement class 1. In contrast,

²⁹⁹ á- when followed by a TBU with a high tone (regressive tonal dissimilation).

³⁰⁰ Sources for Gvyuma: Newman/Newman 1974: 113, B. Newman 1978: 41 and own data.

Sources for Gwaandama: Sabe 1995: 405ff., 2014: 45f., [S-N2] and own data.

³⁰¹ Sources for Gvyuma and Gwaandama, cf. previous footnote.

the agreement markers in examples (452) and (453) have the same form, but agree with a pronoun, whether overt or not,³⁰² and are therefore glossed differently.

Deeləmə			
(451)	<i>zwá-y-à</i> child-Y.1-REF 'the/a child went home'	<i>á-zà</i> 1-go	<i>fwá</i> house
(452)	<i>yè</i> 3SG.SBJ '(it is him/her) s/he went home'	<i>á-zà</i> 3SG ³⁰³ -go	<i>fwá</i> house
(453)	<i>á-zà</i> 3SG-go 's/he went home'	<i>fwá</i> house	

In Table 60 above, it becomes apparent that the agreement markers have conflated and show “extreme syncretism in one agreement context” (Elstermann et al. 2021: 332). This conflation process occurred diachronically along the line of animacy and/or number and is not uniform across the three varieties. In Deeləmə and Gvyuma, agreement classes 2 and 4 have a different agreement marker on the verb compared to all other agreement classes (*bá-* / *bá-/bà-* in class 2 and 4 vs. *á-* in all other classes). This can be explained with the semantics and number of the NF classes that trigger agreement classes 2 and 4: NF class B only contains plural terms for human beings and kinship terms, while NF class HA contains many (but not all) animals, some human beings and other (inanimate) items, all plural forms. Diachronically, NF class HA was most likely reserved only for animates and possibly merged with another NF class, as was proposed by Kleinewillinghöfer and Vigeland (2016). Therefore, agreement marking, which was originally reserved for animate subjects, was later extended to all items in NF class HA, regardless of their animacy status (cf. example (458)). Consequently, animate nouns in other (plural) classes (such as NF class A and TA) show agreement on the verb just like any other inanimate noun, as they are considered to belong to inherently inanimate classes (compare (459) with (460)).

Deeləmə			
(454)	<i>bwáli-y-à</i> man-Y.1-REF 'the/a man went/walked'	<i>á-zà</i> 1-go	
	<i>(á-</i> can also refer to other nouns such as ‘cow’ (agreement class 3), ‘tortoise’ (agreement class 5) or ‘tortoises’ (agreement class 6))		

³⁰² Of course, pronouns refer to an antecedent which is a noun or noun phrase, known from context. However, in this thesis, if the antecedent is not overtly expressed, the subject agreement marker is glossed as in example (453) and not as in example (451).

³⁰³ The subject agreement markers are abbreviated without ‘AGR’ in the interlinearisation of examples. For subject pronouns, an additional ‘SBJ’ is added to differentiate them from the agreement markers.

- (455) *yír-b-à* *bá-zà*
 woman-B.2-REF 2-go
 ‘(the) women went/walked’
 (*bá-* can also refer to other nouns such as ‘cows’ (agreement class 4), but not
 e.g. ‘tortoises’ (agreement class 6))

Guyuma

- (456) *belĩ-w-e* *a-jama*
 cow-W.3-REF 3-eat.CPL
 ‘the/a cow has eaten’ [S-G2]
 (*a-* can also refer to other nouns, such as ‘snake’ (agreement class 7) or
 ‘snakes’ (agreement class 8))
- (457) *belĩ-he=u* *ba-jama*
 cow-HA.4=DEF 4-eat.CPL
 ‘the cows have eaten’ [S-G2]
 (*ba-* can also refer to other nouns in agreement class 2, such as ‘children’, but
 not e.g. ‘snakes’ (agreement class 8))
- (458) *cirě-he=ũ* *ba-kowe* *si-m-a*
 knife-HA.4=DEF 4-fall ground-M-REF
 ‘the knives have fallen down’ [S-G2]
- (459) *zi-ta=v* *a-ja*
 snake-TA.8=DEF 8-eat
 ‘the snakes have eaten’ [S-G2]
- (460) *caw-ta=v* *a-kamna*
 leg-TA.8=DEF 8-break
 ‘the legs have broken’ [S-G2]

Gwaandama, however, does not distinguish between animate and inanimate nouns, but rather between singular and plural nouns. All agreement classes that refer to singular or transnumeral NF classes have the same marker prefixed to the verb, while the agreement classes that refer to plural NF classes also have the same form. Therefore, clauses like the following ones can refer to any noun showing the same number.

Gwaandama

- (461) *bəli-w-ə* *á-dámà*
 cow-W.3-REF 3-eat.CPL
 ‘the/a cow has eaten’ [S-N3]
 (*á-* can also refer to other singular nouns, such as ‘child’ (agreement class 1)
 or ‘snake’ (agreement class 7))
- (462) *jima-ha=v* *bə-yámá* *tsim*
 knife-HA.4=DEF 4-fall.CPL down
 ‘the knives have fallen down’ [S-N3]
 (*bə-* can also refer to other plural nouns, such as ‘leaves’ (agreement class 6))

- (463) *dwa-m-a* *à-tsá*
 water-M.9-REF 9.IMP³⁰⁴-flow.FV
 ‘(the) water flows’ [S-N3]
 (*à-* can also refer to other (singular) nouns, such as ‘river’ (agreement class 7))

The differentiation between agreement classes 2 and 4, in contrast to all other classes, is also observed in non-verbal clauses; not only in Deeləmə and Gyyuma but also in Gwaandama. In non-verbal clauses, agreement of the subject on the copula occurs only for agreement classes 2 and 4, while in all other classes, agreement marking is not overtly expressed (cf. §7.3.2.1).

Deeləmə

- (464) *yì-b-ə* *bá-hà* *kál:à*
 person-B.2-REF 2-COP small
 ‘there are a few people’
- (465) *nám* *mwára-há* *bà-hàn* *mwára-hà*
 animal.4 big-4.DEF 4-COP big-4
 ‘the elephants are big’
- (466) *nám* *mwára-wá* *Ø-hàn* *mwára-wà*
 animal.3 big-3.DEF 3-COP big-3
 ‘the elephant is big’

Gyyuma

- (467) *ji-b-e* *ba-ha* *fira-ba*
 person-B.2-REF 2-COP kind-2
 ‘the people are kind’ [S-G2]
- (468) *làrà-há* *nà-hà-sìr* *bá-hà* *yá’á*
 elephant-HA.4 NUM-4-two 4-COP here
 ‘there are two elephants here’
- (469) *làrà-w-á* *nà-w-kàl* *Ø-hà* *yá’á*
 elephant-W.3-REF NUM-3-one 3-COP here
 ‘there is one elephant here’

Gwaandama

- (470) *wa-b-a* *ba-ha* *muktər*
 father-B.2-REF 2-COP fat
 ‘the fathers are fat’ [S-N3]
- (471) *sě-há* *bà-hà* *cólà-há=è*
 dog-HA.4 4-COP white-4=DEF
 ‘the dogs are white’ [S-N3]

³⁰⁴ Note that *à-* is a portmanteau morpheme of the agreement marker of class 9 and the imperfective marker (cf. §6.3.3).

- (472) *dzúdzú-há* *bà-hà* *bwàná-há=ò*
 waterpots-HA.4 4-COP full-4=DEF
 ‘the waterpots are full’ [S-N3]
- (473) *Ø-hà* *tswá=ní=ò*
 3SG-COP house.3=PP.inside=DEF
 ‘s/he is in the house’ [S-N2]
- (474) *jímá-w-á* *Ø-hà* *tébùrù-rá=ò*
 knife-W.3-REF 3-COP table-PP.on=DEF
 ‘the knife is on (top of) the table’

The subject agreement markers change depending on the aspect of the clause. This is because, at least in the majority of cases, subject agreement markers have merged with aspect markers and preverbal particles, becoming portmanteau morphemes synchronically. They are described in the respective chapters (cf. §6.3.3 for imperfective, §6.3.4 for future, §3.8.6.2 for the preverbal strict relative and §3.8.6.3 for the progressive).

Watters (2000: 201) describes agreement marking of the subject on the verb as typical for Bantu languages and non-existent in other Niger-Congo subgroups, including ‘Adamawa’. Indeed, subject agreement on the verb does not appear to be common in other ‘Adamawa’ languages spoken adjacent or close to Nungvrama. For instance, it does not occur in Waja (Kleinewillinghöfer 1991: 150ff.) and Baa (Möller Nwadigo n.d.). Tula may be an exception, although Hall’s (1954/1956: 149f.) description does not clearly indicate the presence of agreement marking.

5. Noun phrases

5.1 General remarks

Noun phrases are defined as a combination of a head noun and attributes, which are “syntactic constituents which serve as arguments of verbs” (Dryer 2007b: 151, cf. Givón 2001b: 1, Rijkhoff 2002: 19, 526, Crystal 2008: 367). The chapters on agreement classes (§4.4) provided numerous examples that illustrate the order of the head noun and attributes, as well as the agreement marking on attributes. The subchapters below offer an overview of the internal order of attributes in a noun phrase, demonstrate how two or more noun phrases can be coordinated and discuss more complex noun phrases, such as genitive constructions and relative clauses.

5.2 Word order

In his section on word order typology in African languages, Creissels (2000: 250f.) observes that the constituent order SVOX (called Type A) is predominant in Niger-Congo languages but is also found in the other three African phyla. Atlantic and Benue-Congo languages that exhibit this order have noun phrases in which the attributes follow the head noun. In contrast, a subtype of Type A, which includes most ‘Adamawa-Ubangian languages’, has attributes that precede the head noun (Creissels 2000: 251). Although

Nɔngɔrama is clearly a Type A language, it does not conform to the subtype expected of an ‘Adamawa’ language. Instead, it follows the more common order of Type A, in which attributes follow the head noun.³⁰⁵

The order of attributes within a noun phrase in Nɔngɔrama appears to be subject of free variation rather than strict rules. However, the typical word order is as it is depicted in the following figure, which is also the typical order in noun phrases beginning with a noun as proposed by Rijkhoff (2001: 532). Adjectives and numerals typically follow the head noun immediately, while demonstrative proforms and possessive pronouns tend to occur later. Interrogative and relative proforms always appear at the end of a noun phrase. The definite article (cf. §3.8.5) attaches to the last element of the noun phrase as it is a clitic.

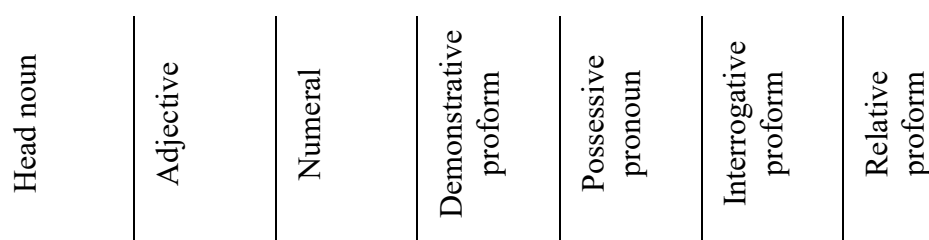


Figure 8. Order of attributes in a noun phrase

A few examples in the three varieties illustrate the aforementioned word order.

Deelɔmɔ

- (475) *bàlǐ* *fàr-hà* *nà-há-kwá*
 cow.4 red-4 NUM-4-two
 ‘two red cows’

- (476) *dí-tá* *kwǐ* *tì-bà*
 shirt-TA.8.DEF two 8-DEM1
 ‘these two shirts’

Gyɔɔma

- (477) *zí-tá* *nà-á-sìr* *tá-mà*
 snake-TA.8.REF NUM-8-two 8-DEM3
 ‘those two snakes (out of sight)’

³⁰⁵ In Gwaandama, two exceptions can be observed where the adjectives *yárgà* ‘fast’ and *fàr* ‘red’ can precede the head noun, e.g.

Gwaandama

yárgá *ná-ká*
 fast hand-KA.7
 ‘a fast hand’ [B-N4]

fàr *ná-á*
 red hand-A.6
 ‘red hands’ [B-N4]

However, *fàr* ‘red’ is also attested as following the head noun and agreeing with it through a suffix, similar to other adjectives, e.g. *dí fàrà-kà* ‘a red shirt’ [S-N1] and *ná á-yò fàrà-mà* ‘his/her red hands’ [B-N4]. Cf. §5.4.2 for dependency reversal in noun-attributive constructions.

- (478) *tí-ká* *mwár-ká* *í-kà* *ná-dwá*
 tree-KA.7.REF big-7 REL-7 1SG-see
 ‘the big tree which I have seen...’

Gwaandama

- (479) *yàdzà* *cúmtér*³⁰⁶ *káwóndá-wá* *wá-yù*
 journey.3 short first-3 3-1SG.POSS
 ‘his/her first short journey’ (Hiraki 1986: 151)

- (480) *dzwa-b-a* *bə-bi* *ba-nyu*
 child-B.2-REF 2-DEM1 2-1SG.POSS
 ‘these children are mine’ (lit. these my children) (Sabe 2014: 47)

- (481) *bà.áni* *nì-á* *kwǎ* *í* *hà*
 what thing-A.6 DEM2 REL.6 COP

- gá* *b̀v̀= ná= gá= nà*
 NEG 3PL=COM=NEG=CF
 ‘what is that thing that they do not have?’ [B-N1]

The order of two or more adjectives in a single noun phrase tends to follow a specific pattern, as shown in the following figure. This order applies equally to Deeləmə, Gyuuma and Gwaandama³⁰⁷.



Figure 9. Order of adjectives in a noun phrase

Examples for the order of adjectives in a noun phrase are:

Deeləmə

- (482) *h̀yá* *mwárà* *swí-wà*
 snake.3 big black-3
 ‘big black snake’

³⁰⁶ *cúmtér* in [S-N3].

³⁰⁷ Hiraki (1986: 149f.) describes the order of two or more adjectives in a single noun phrase in Gwaandama as such: adjectives describing colour precede adjectives of size which in turn precede adjectives of age. All of these follow adjectives describing nationality (e.g. Nigerian), possessives and material (e.g. cotton, wooden) as well as “submodifiable adjectives” (it remains unclear what is meant by “possessives” in the context of adjectives and “submodifiable adjectives”). His examples, however, do not confirm this order entirely, e.g.

Gwaandama

- dzi-kà* *mwárà-kà* *swí-ká=v*
 snake-KA.7 big-7 black-7=DEF
 ‘a big black snake’ (Hiraki 1986: 149)

After his description of the word, Hiraki admits “that the order in which descriptive adjectives occur in Nvngvra [i.e. Gwaandama] is not fixed” (1986: 150).

- Guyuma**
 (483) *dí-ká* *fàr-kà* *sú-ká*
 shirt-KA.7 red-7 new-7
 ‘a new red shirt’

- Gwaandama**
 (484) *dí* *làndì-kà* *fàrà-kù* *sú-kù*³⁰⁸
 shirt.7 cotton-7 red-7 new-7
 ‘a new red cotton shirt’ (Hiraki 1986: 149)

5.3 Noun phrase coordination

Noun phrases can be coordinated or conjoined to form a larger group while maintaining “the same semantic relations with other surrounding elements” (Haspelmath 2007: 1). In Nvngvrama, different conjunctions are used to connect two or more noun phrases. These are *nà*, *ki* and *ar* in Deeləmə (with no reported difference in meaning), *dí*³⁰⁹ in Guyuma and *nà* in Gwaandama. They are positioned between the noun phrases.

- Deeləmə**
 (485) *áná* *zwá-y-à* *nà* *yír-à* *yá-mò=nà*
 how child-Y-REF COORD woman-F.1 1-2SG.POSS=CF
 ‘how are your child and wife?’

- (486) *jóm-á* *nà* *zwó-y-á* *nà*
 animal-W COORD boy-Y-REF COORD

sǎ-w *wá-yè* *bá-yá* *nà=b-mókà*
 dog-W.3 3-3SG.POSS 3PL-come.out PROG=3PL-run
 ‘an animal and a boy and his dog (they) came out and were running’

- (487) *yí-r-à* *nà/ki/ar* *yír-à*
 man-R-REF COORD woman-F
 ‘man and woman / husband and wife’

- Guyuma**
 (488) *zwí-y-é=v* *dí* *jýá-w-á=v*
 child-Y-REF=DEF COORD dog-W-REF=DEF

bá-sùl *á* *gúlmá-l-dè=u*
 3PL-sit SPAT log-L-PP.on.DEF
 ‘the child and the dog (they) sat on top of the log’

³⁰⁸ The vowels of the two agreement markers are <u> in the source. It is unclear whether this is due to a merger of the agreement marker and the definite marker (although the definite marker is a clitic that only attaches to the last element of the noun phrase) or a representation of vowel weakening (cf. §2.3.5).

³⁰⁹ *Dí* may also occur in the beginning of a clause and is then translated as ‘then’ (cf. e.g. J. Newman 1978).

- | | | | | | |
|-------|----------------|-----------|---------------|--------------|------------|
| | <i>Wakajir</i> | <i>də</i> | <i>Sabsab</i> | <i>ba-ha</i> | <i>swa</i> |
| (489) | Wakajir | COORD | Sabsab | 3PL-COP | home |
- ‘Wakajir and Sabsab are home’ (Institute of Linguistics 1975: 11)

Gwaandama

- | | | | | |
|-------|-------------|------------------|-----------|------------------|
| (490) | <i>jàlí</i> | <i>Dùmnà-b-à</i> | <i>nà</i> | <i>Dìllà-b-à</i> |
| | example | Dumna-B-REF | COORD | Dille-B-REF |
- ‘for example, the Dumna and Dillə people’ [B-N1]

- | | | | | |
|-------|-------------|---------------|--------------------------|-----------------|
| (491) | <i>yíkā</i> | <i>ān-dzū</i> | <i>nà</i> ³¹⁰ | <i>gíhí-y=ù</i> |
| | then | 3SG.SR-come | INST | wife-Y=DEF |

- | | | | | |
|--|-----------|---------------|-----------|---------------------------|
| | <i>nà</i> | <i>dzwá-b</i> | <i>yù</i> | <i>deĩ</i> ³¹¹ |
| | COORD | child-B | 3SG.POSS | INT |
- ‘Did he come with his wife and his children?’ [B-N1]

For disjunctive coordination (also known as disjunction or ‘or’-coordination (Haspelmath 2007: 1)), Nungvrama simply juxtaposes the noun phrases or joins them with the borrowed form *kó* (from Hausa *kō*) ‘or’. Disjunctive coordination is illustrated with the following Gwaandama examples.

Gwaandama

- | | | | | | | | |
|-------|----------------|-----------------|-----------|----------------|---------------|------------------|------------|
| (492) | <i>kàrikáw</i> | <i>gwàjv-tá</i> | <i>rì</i> | <i>kàrikáw</i> | <i>kǔ-l-á</i> | <i>swá=bū=nà</i> | <i>déy</i> |
| | maybe | sickness-TA | if | maybe | war-L-REF | drive=3PL.OBJ=CF | INT |
- ‘Maybe sickness [or] maybe war drove them away?’ [B-N1]
- | | | | | | | |
|-------|----------------|-----------|-----------------|-----------|-----------------|-----------|
| (493) | <i>jǔ-l-à</i> | <i>kó</i> | <i>gwàpì-tà</i> | <i>kó</i> | <i>kvyà-w-à</i> | <i>bí</i> |
| | famine-L.5-REF | DISJ | sickness-TA.8 | DISJ | plague-W.3-REF | INT |
- ‘[Was there anything bad as] famine or sickness or plague?’ [B-N1]

5.4 Complex noun phrases

5.4.1 Genitive

This chapter discusses genitive constructions, sometimes also referred to as ‘possessive constructions’. Pronominal attributive possession is covered in §4.4.6, while predicative possession is described in §7.3.2.4, as it is not expressed at the noun phrase level but rather at the clause level. The term ‘possession’ is misleading because it does not only express possession or ownership, as in ‘the toy of the child’ or ‘the teacher’s book’. It also covers a wide range of other notions, including family and part-whole relationships, such as ‘the child’s aunt’ or ‘the leg of the boy’. Therefore, the term ‘genitive’ is used here (Dryer 2007b: 117f.).

³¹⁰ The instrumental adposition and the coordinating conjunction *nà* in both Deeləmə and Gwaandama are formally identical but differ functionally and must therefore not be confused.

³¹¹ In the interlinearisation provided in [B-N1], this lexeme is translated as ‘all’. However, in comparison to other similar sentences, it is more likely to be an interrogative tag (cf. §3.8.7).

In Nvngvrama, a genitive construction is typically formed by a juxtaposition in which the head precedes the modifier. Both nouns retain their NF class suffix, distinguishing them from compounds (cf. §4.4.3). In Gvyvma and Gwaandama, a definite marker can cliticise onto the possessor. Whether the marker has a scope over the whole noun phrase or just the noun it is attached to can only be determined through context (cf. examples (498) and §3.8.5)).

Deeləmə

- (494) *cá-ká* *zwá-y-à*
 leg-KA.DEF child-Y-REF
 ‘the leg of a child’

- (495) *ná-kà* *jímá-w-à*
 hand-KA knife-W-REF
 ‘handle of a knife’

Gvyvma

- (496) *cáw-ká* *zwí-y-é*
 leg-KA.REF child-Y-REF
 ‘leg of a child’

- (497) *dwú-l-é* *cír-é-w-é*
 head-L-REF knife-W-REF
 ‘handle of a knife’ (lit. head of a knife)

Gwaandama

- (498) *kwáp-ká* *dzwí-y-ə=ù*
 leg-KA child-Y-REF=DEF
 ‘leg of the child / the leg of a child’ [S-N3, S-N4]

- (499) *yú-l-ə* *jímá-w-á=ò*
 handle-L-REF knife-W-REF=DEF
 ‘handle of the knife / the handle of a knife’ [S-N3, S-N4]

In Gvyvma, there are instances where a morpheme *n(a)* or *a* is added between the head and the modifier. At least in some cases, the morpheme is optional (as indicated in brackets in example (504) below). It is still unclear whether its occurrence makes a semantic difference. The following examples illustrate these constructions. The inserted morpheme is preliminarily glossed with GEN and a question mark.

Gvyvma

- (500) *kwá-y-á* *n̩* *mà-w-á=ò* *á-wún-gə̀=bè*
 owner-Y-REF GEN? farm-W-REF=DEF 3SG=rise-CAUS=3PL.OBJ
 ‘the owner of the farm relieved them [from work]’³¹²

³¹² Compare this example with Deeləmə example (25) in §3.3.3.1 where no such marker occurs between ‘owner’ and ‘farm’.

- (501) *bál-ká* *nà* *cérì-w-é*
stick-KA.REF GEN? devil-W-REF
'devil's cane'
- (502) *jàm* *nà* *swà-w-á*
animal GEN? house-W-REF
'domestic animal'
- (503) *zwa-b-a* *a* *cíba-w-a*
child-B-REF GEN? slave-W=REF
'children of the slave' (Gal 4: 31) (Wycliffe Bible Translators n.d.)
- (504) *jǎ-w-á=v* (*à*) *jýù-w-è*
meat-W-REF=DEF GEN? goat-W-REF
'goat's meat'

5.4.2 Dependency reversal in noun-attributive constructions

Chapter §5.2 described the typical word order in Nungvrama noun phrases. However, there is an exception to this word order when using the quantifier *fí* (in Deeləmə)/*cí* (in Gvyvma and Gwaandama) 'some, certain, other'. Unlike any other attribute, this quantifier precedes the noun, even if other attributes occur in the noun phrase (cf. example (508)). It remains invariable in that position.³¹³

Deeləmə

- (505) *fí* *tí-m-à*
some tree-M-REF
'some trees'
- (506) *fí* *nà- 'à*
some thing-A
'something, some/other thing'

Gvyvma

- (507) *cí* *jì-r-é*
some person-R-REF
'someone, other person'

Gwaandama

- (508) *á* *yìnà* *cí* *gíhí-y-á* *ya-yu*
and 3SG.SBJ other wife-Y.1-REF 1-3SG.POSS
'and this is his other wife' [B-N4]
- (509) *cí* *sílá-w-á*
some time-W-REF
'sometimes, some time'

³¹³ There may be other quantifiers preceding the noun in a noun phrase, but besides one occurrence of *kwam* 'little' preceding the noun, only *fí/cí* 'some' occurs in the data.

In Gvyvma, the quantifier *ci* ‘some, certain, other’ more often than not follows the noun and agrees with it (compare example (507) with example (510)). No such cases are attested in the Deeləmə and Gwaandama data.

Gvyvma

- (510) *ɲì-r* *ci-yé*
 person-R.1 some-1
 ‘someone, some person’
- (511) *singilá-w* *ci-wé=ù*
 sheep-W.3 some-3=DEF
 ‘the other sheep’
- (512) *a-za* *a-sv̄tir=ɪ* *ya* *ce*
 3SG-go 3SG-show=3SG.OBJ place.6 other.6
 ‘he went to show him another place’ (Newman 1976: 44)

The Gvyvma examples resemble constructions with other quantifiers in Nvngvrama, such as ‘many’, ‘much’ and ‘all’. In these constructions, the quantifiers function as adjectives, following the head noun and agreeing with it.

Deeləmə

- (513) *ɲí-b* *nzá-bà* *bà-màká*
 person-B.2 all-2 2-run
 ‘all people ran (away)’

Gvyvma

- (514) *á-wú* *zwá-b* *brè-bé*
 3SG-bear child-B.2 many-2
 ‘she had born many children’

Gwaandama

- (515) *mìyá-há* *zè-hé=ù*
 goat-HA.4 all-4=DEF
 ‘all goats’

The use of the quantifier preceding the noun in Nvngvrama may be explained by what Malchukov (2000) refers to as ‘dependency reversal in noun-attribute constructions’ (DRNA). DRNA show a semantic head shift in which the attribute of a noun phrase surfaces as the head by taking some or even all head properties. Several points of Malchukov’s definition apply to Nvngvrama, some of which will be briefly mentioned below (for a detailed analysis of DRNA, cf. Malchukov (2000)). First, certain classes of attributes are more susceptible to DRNA patterns than others. Adjectives, participles and quantifiers belong to the former category, while numerals rarely and determiners never occur in these types of constructions (Malchukov 2000: 29). In Nvngvrama, a DRNA construction occurs with a quantifier. Second, in such constructions, the word order is reversed (Malchukov 2000: 30f., 38f.). In Nvngvrama, this means that the attribute precedes the noun and becomes the head of the noun phrase. Third, the head is the

obligatory constituent of its phrase and can stand alone without other attributes (Malchukov 2000: 30). The following examples demonstrate that the quantifier ‘some’ can stand on its own and then requires an obligatory NF class suffix in Nvngvrama.

Deeləmə

- (516) *bá* *í* *mà-zá* *íi-y*
 COMPL when 2SG.IMP-do.FV someone-Y
- yínà* *mà-zá* *fákú-l* *lá-mò*
 3SG.SBJ 2SG.IMP-do.FV head-L.5 5-2SG.POSS
- ‘anything you do to someone, you do to yourself’

Gvyvma

- (517) *cí-b* *bá-dàhá* *bá-yá=wá*
 some-B.2 2-be.able 2-come.out=VEN
- ‘some (people) were able to come’

- (518) *dí-ka=v* *a-kwaha* *n* *ci-ke* *bav*
 cloth-KA.7=DEF 7-dry COM some-KA ?³¹⁴
- ‘the cloth dried along with the other one’ (Newman 1976: 50)

Gwaandama

- (519) *cí-b-á* *bà-tsá=v* *bà-dzũ* *Tsùàkù* *dāī*
 some-B.2-REF 2-run=VEN 2-go.VEN Tsuaku INT
- ‘some [of the natives] ran to Tsuaku, didn’t they?’ [B-N1]

Fourth, according to Malchukov (2000: 45), the “underdifferentiation of adjectives from nouns seems to be rather a necessary condition for DRNA”. In Nvngvrama, adjectives are, indeed, quite similar to nouns (cf. §3.4). However, there are clear differences as well, which make these DRNA patterns so striking. Fifth, the DRNA constructions resemble possessive constructions (Malchukov 2000: 27f., 36f., cf. Van de Velde 2012 who calls these attributes ‘possessee-like qualifiers’). This statement is only partially true for Nvngvrama. The order of head and dependent is the same in both DRNA constructions and genitive constructions (cf. §5.3). However, in the latter, both nouns display their respective NF class, while in DRNA phrases, only the second element shows its NF class.³¹⁵

³¹⁴ Translated as ‘one’ by Newman (1976: 50).

³¹⁵ Some other ‘Adamawa’ languages appear to have similar cases where a small set of adjectives and/or quantifiers are uninflected (see e.g. Baa (Möller Nwadigo n.d.: 106) and Dijim (Ajede 2023)) and/or precede the noun, despite the normal word order in which the attribute follows the noun (e.g. Kyak (Harley 2020: 389, p.c.)). Adjectives in such constructions often come from similar categories, denoting size, age and colour. It is evident that these categories belong to a small adjective class, as proposed by Dixon (2004: 3ff.); possibly an indication that these DRNA constructions may be remnants of an older system that has almost been displaced by a new system with a new adjective class. Alternatively, it could be an areal phenomenon that has “spread via contact” as demonstrated by Van de Velde (2012) in his survey of Central African languages (cf.

5.4.3 Relative clauses

Relative constructions comprise a noun or noun phrase, which is the head of the construction, and a subordinate relative clause that serves as the attribute by “specifying the role of the referent of that NP in the situation described by the RC [relative clause]” (Andrews 2007a: 206, cf. Lehmann 1986: 664).

In Nʉngvrama, the relative clause always follows the head noun, whether it has a subject or object function. This word order occurs in the majority of languages (Dryer 2013a), including Nʉngvrama, and is found in about half of the languages with a verb-object word order (Dryer 2013b). The internal structure of the relative clause in Nʉngvrama resembles the general word order, but with the addition of a relative marker (§3.6.7) that introduces the clause and agrees with the head noun (§4.4.9) (cf. Dryer 2007b: 191) as well as a clause final marker =*nÀ* (§3.8.9) that occurs in Deeləmə and Gwaandama, but not in Gvʉvma. This method of marking a relative clause can be described as the ‘one relativization marker gap strategy’, as defined by Kuteva and Comrie (2005: 212, 216f., 220f.).

The following examples illustrate relative constructions with the subordinate relative clauses in square brackets.

- Deeləmə**
- (520) *nə-dú* *yír-á*
 1SG-see woman-F.1.DEF
- [*yè* *ná=á-sú* *nà(-‘à)=nà*]
 [1.REL PROG=1-farm thing(-A)=CF]
 ‘I saw the woman who was farming’
- (521) *nə-dú* *yír-b-á*
 1SG-see woman-B.2-REF.DEF
- [*bè* *nà=b-sú* *nà=nà*]
 [2.REL PROG=2-farm thing=CF]
 ‘I saw the women who were farming’
- (522) *wǎ-tá* [*tè* *nə-dú=nà*] Ø-*hàn* *mwára-tà*
 leaf-TA.8.DEF [8.REL 1SG-see=CF] 8-COP big-8
 ‘the leaves which I saw are big’
- (523) *bàlì-hà* [*hè* *nə-dú=b=nà*] *bá-hàn* *fáwla-hà*
 cow-HA.4 [4.REL 1SG-see=3PL.OBJ=CF] 4-COP white-4
 the cows which I saw are white’

(Idiatov/Van de Velde 2015). However, DRNA constructions are the dominant, most frequently occurring constructions in the languages surveyed, while this is not the case in Nʉngvrama or other ‘Adamawa’ languages (to the best of my knowledge). It remains to be seen whether ‘Adamawa’ languages are a part of the contact phenomenon described by Van de Velde.

Gvɔvɔma

- (524) *ná-dú mwá-y-á=ù [í á=swì nì-á=ù]*
 1SG-see woman-Y.1-REF=DEF [1.REL 1=farm thing-A.REF=DEF]
 ‘I saw the woman who was farming’
- (525) *ná-dú gàwǔ-hà [áh-à bà-hà já-há]*
 1SG-see spear-4 [4-REL 4-COP sharp-4]
 ‘I saw the spears which are sharp’

Gwaandama

- (526) *né-dwàmà gíhǐ-y-á [yá-³¹⁶bùrsà=nà]*
 1SG-see.CPL woman-Y.1-REF [1.REL-farm=CF]
 ‘I have seen the woman who was farming’ [S-N3]
- (527) *né-dwàmà gáhǔ [bá bà-bùrsà=nà]*
 1SG-see.CPL woman.2 [2.REL 2-farm=CF]
 ‘I have seen the women who were farming’ [S-N3]
- (528) *dzi-ká [ká nà-dú=nà] Ø-hà cúmtár*
 snake-KA.7 [7.REL 1SG-see=CF] 7-COP short
 ‘the snake which I saw is small’ [S-N3]
- (529) *dzi-tá [tá nà-dú=nà] Ø-hà cúmtár*
 snake-TA.8 [8.REL 1SG-see=CF] 8-COP short
 ‘the snakes which I saw are small’ [S-N3]

6. Tense, aspect, modality and negation

6.1 Introductory remarks

This chapter introduces the three categories tense (§6.2), aspect (§6.3) and modality (§6.4) in turn. In Nvngvrama, the least marked case is a bare verb stem, which is referred to as ‘factative’. It is primarily used to express general truths, universal statements and completed actions. To express any other tense or aspect, tense and aspect morphemes are cliticised onto the verb. While tense is not widely used in Nvngvrama, aspect is the most important category. In addition to the unmarked factative, there are distinctions between imperfective, past progressive and aspectual future. Object pronouns, which were introduced in §3.6.3, change their form depending on the aspect of the clause. This is discussed in §6.3.3 and §6.3.4 below. Modality is typically conveyed through the use of modal verbs added to form matrix clauses (§6.4.2). Additionally, a construction can be employed to express certainty (§6.4.3). Finally, the chapter on negation (§6.5) provides an overview of the use of the negation particles.

³¹⁶ Compare example (442) in §4.4.9 in which the relative clause marker and the subject agreement marker have merged in Gvɔvɔma. This is possibly the same situation here: the low tone of the subject agreement marker becomes a floating low tone that attaches to the nearest TBU, the verb root in this case, which becomes low. Compare example (527) in which the verb root displays a high tone.

6.2 Tense

6.2.1 General remarks

Tense is the “grammaticalized expression of location in time” (Comrie 2009: 9). It indicates when a situation occurred relative to another time, usually the time of the utterance.

In Nɔ̀ngvɔ̀rama, the expression of tense is limited to a few cases and does not play a vital role. There appears to be a non-past marker that always combines with an aspect, either imperfective or aspectual future. Another marker can express anteriority and forms the pluperfect together with the completive particle =*AmÁ*. It can also indicate temporal sequences, showing that one event occurred after another.

6.2.2 Non-past

Nɔ̀ngvɔ̀rama features a non-past tense category that always combines with the imperfective and the aspectual future. This category divides the imperfective (mostly referring to present situations) and the future from other categories that generally refer to past situations, such as factative and past progressive. The tense category is marked by a vowel *-A* that follows the verb stem. It is preliminarily referred to as ‘final vowel’ (FV). The FV is assumed to be a remnant of a former tense system, the importance of which is declining. This is particularly evident in Deeləmə, where the non-past marker is absent in the imperfective. This may be a recent development aimed at reducing double marking (cf. §6.3.3).

The FV in Nɔ̀ngvɔ̀rama may be comparable to the final vowel found in many other Niger-Congo languages, which was even reconstructed for Proto-Niger-Congo. Nurse et al. (2016: 21) state that the FV was “originally used for a binary aspect contrast between perfective/factative and imperfective, both indicated by a single vowel”. However, in Nɔ̀ngvɔ̀rama, there is no binary contrast as there is only one suffix.³¹⁷

There are alternative explanations for the FV. One possibility is that it is an imperfective marker since it occurs with the imperfective and the future. However, this explanation is not entirely convincing as it does not appear in the progressive, which is an inherently imperfective category. Additionally, aspect is generally marked preverbally (cf. §6.3), whereas the FV is a suffix. Another approach would be to consider a verb with a FV as a verbal noun. In this case, *-A* could then be the NF class 6 marker (cf. §4.2.10, §4.3.1). However, the NF class 6 marker in Deeləmə is *-ʼA* which includes a glottal stop. This marker is also expected in the case of verbal nouns. Subsequently, if a verb with FV is a verbal noun, the aspect markers that have merged with the subject agreement markers (cf. e.g. §6.3) must be reanalysed as auxiliaries, which take on the predicate function in a clause. Auxiliaries typically derive from verbs. However, from a synchronical point of view, the markers for the imperfective and the future in Nɔ̀ngvɔ̀rama bear no resemblance

³¹⁷ Compare Tula which also has a FV in imperfective constructions, but lacks a suffix in other constructions (Hall 1954/1956: 159).

to any verb in the language.³¹⁸ Instead, they have the typical form of grammatical markers with a light syllable (cf. §2.2.5). B. Newman (1978: 39) presents a yet different approach in which a verb with an FV is considered the ‘base form’. However, it is evident in various contexts that the short form should be considered the ‘base form’ (or rather stem). For example, derivational verb extensions immediately follow the verb root and precede the FV, which must thus be understood as separate from the stem (cf. B. Newman 1978: 45). To conclude, it appears that the FV functions primarily as a non-past marker. However, as its exact function remains unclear, it will be glossed as FV.

The form of the FV *-A* is identical in all three varieties, although the tone differs. Sabe (1995: 164, 390ff.) depicts this suffix as a long vowel in Gwaandama, but in my recordings, no lengthening was detected, so it is not depicted in any of the examples in this thesis. The suffix always has a high tone, except for its occurrence in the aspectual future in Gyyuma, where it displays a low tone. It is currently unclear whether this represents genuine grammatical tone or tone replacement that can be explained diachronically (Hyman/Schuh 1974: 102).

	Deeləmə	Gyyuma	Gwaandama
imperfective	no FV	- <i>Á</i>	- <i>Á</i>
aspectual future	- <i>Á</i>	- <i>À</i>	- <i>Á</i>

Table 61. Occurrence of the FV in the imperfective and the aspectual future

To avoid a hiatus at morpheme boundary, one of two phonological processes occurs. First, with verbs ending in /A/, that vowel merges with the suffix in Deeləmə and Gyyuma (or is lost). The situation is not completely clear in Gwaandama, as the notation in the various sources differs (e.g. *dzàá* ‘going’, *bùrsâ* ‘cultivating’, *pérgéé* ‘plucking’, *wàkàà* ‘will wash’ (Sabe 1995: 164, 394, [S-N2])). In my own recordings, the two vowels clearly merge. Therefore, all examples are adapted accordingly.

Deeləmə

aspectual future	/wúmà- <i>Á</i> /	→	[wúmá]	‘will open’
	/yà- <i>Á</i> /	→	[yá]	‘will fall’
	/dwá- <i>Á</i> /	→	[dwá]	‘will see’

Gyyuma

imperfective	/lápka- <i>Á</i> /	→	[lápka]	‘harvesting’ (B. Newman 1978: 39)
	/zà- <i>Á</i> /	→	[zá]	‘going’
aspectual future	/zà- <i>À</i> /	→	[zà]	‘will go’

Gwaandama

imperfective/	/wàkà- <i>Á</i> /	→	[wàká]	‘washing, will wash’
aspectual future	/tsá- <i>Á</i> /	→	[tsá]	‘running, will run’

³¹⁸ They can possibly be reconstructed as *à and *à̃, respectively. Cf. §6.3.3 and §6.3.4.

Second, when a monosyllabic verb ends with a vowel other than /A/, an approximant is added before the suffix.

Deeləmə

aspectual future /nò-Á/ → [nòwá] ‘will hear’

Gvyvma

imperfective /tú-Á/ → [t^húwá] ‘saying, telling’

Gwaandama

imperfective/ aspectual future /tú-Á/ → [t^húwá] ‘saying, telling’

B. Newman (1978) mentions another marker indicating non-past that only marginally occurs in my own data on Gvyvma (and nowhere in Deeləmə or Gwaandama). It is a suprasegmental nasalisation that acts as a clitic since it occurs on the last vowel of the verb (including other clitics).³¹⁹

Gvyvma

(530) à-bwàb-r-a=í
3SG-tie-RLT-FV=3SG.OBJ.NPST
‘s/he is tying him/her with it [an already mentioned rope]’ (B. Newman 1978: 32)

(531) á-zà à-nìngá mwá í-á=ò
3SG-go 3SG.IMP-give.FV.NPST girl.1 1-DEM1=DEF
‘s/he went and is giving it to that girl’ (B. Newman 1978: 38)

(532) ñ-zǎ
1SG.FUT-go.FV.NPST
‘I will go’ (B. Newman 1978: 34)

(533) ba-kur-ě zũ-we-ye
3PL-return-FV.NPST dance-W-in
‘they will return to the dance’ (Newman 1976: 54)

When the ventive clitic occurs, nasalisation to indicate non-past is marked twice: before and after =wÁ (B. Newman 1978: 26).

(534) sıl-gǎ=wǎ
split-CAUS.NPST=VEN.NPST
‘splitting it here / will split it here’ (B. Newman 1978: 41)

The use of the nasalisation clitic is not consistent in all examples where it is expected. Indeed, B. Newman (1978: 25) notes that nasalisation “generally” occurs, but not always.³²⁰ It is possible that the marking of non-past through nasalisation was already

³¹⁹ Depicted as <ng> after the vowel (Newman 1976, 1978, J. Newman 1978), but as <Ṽ> here.

³²⁰ For example not in B. Newman (1976: 42f., 56): *n mvrya swa* ‘I will go home’, *n bam yabriya* ‘I’ll throw you outside’, *jewe* ‘give (it) to me’, but always in B. Newman (1978).

declining when Newman collected her data. This may explain why most of the other data collected later, including unpublished material from Kleinewillinghöfer in the 1990s and my own data, do not show this feature. Alternatively, it is conceivable that nasalisation is optional and used only by some Gvɔvɔma speakers.

6.2.3 Remote past

The remote past, also known as pluperfect, expresses an event that occurred before another event. To form the remote past in Nvngvɔrama, the strict relative particle marker (§3.8.6.5) merges with the subject agreement marker, and the completive clitic =*ÀmÀ* is added (§3.8.6.2). This construction is present in the Gwaandama data, but there are no examples in the Deeləmə and Gvɔvɔma data.

Gwaandama

- (535) *dzwí-y-é* *án-nv̄=àmá* *jù-kà* *dzírà-kà-rà*³²¹
 boy-Y.1-REF.DEF 1.SR-feel=CPL abscess-KA leg-KA-PP.on
 ‘the boy had injured the leg [and therefore couldn’t play]’ (lit. the boy had felt an abscess on his leg...) (Sabe 1995: 168)

- (536) *nán-wàr=àmà* *dí-ká*
 1SG.SR-pull=CPL rope-KA
 ‘I had pulled a rope’ (Sabe 1995: 413)

- (537) *bàn-búrsèmè*
 3PL.SR-cultivate.CPL
 ‘they had cultivated’ [S-N2]

- (538) *bá* *nán-dáw=àmà* *bá-á=nà*
 if 1SG.SR-save=CPL money-A=CF

ná=ná-ɲwàmá *làkàrgá-w-á=ò*
 PROG=1SG-buy.CPL book-W-REF=DEF
 ‘if I had saved money, I would have bought the book’ (Sabe 1995: 168)

- (539) *ínkákà* *bàn-hár-nà* *Lìn-w-à* *nà*
 before 3PL.SR-COP.PST.NOM-PLU Lìn-W-REF COORD

Wálv-w-à *nà* *Súmgál-w-á*
 Walv-W-REF COORD Sumgál-W-REF

bàn-hará *nì* *kàlí-à*
 3PL.SR-COP.PST.NOM thing.A.6 one-6
 ‘Before, Linwə and Walvwa and Sumgəlwə had been one [major kinship group]’ (lit. before they had been Linwə and Walvwa and Sumgəlwə, they had been one thing) [B-N1]

³²¹ In [WL-N1], ‘leg’ is *kwábká*, whereas ‘foot’ is *jíráká*.

6.2.4 Temporal sequence

Another context, in which tense marking occurs in Nvngvrama, is temporal sequences in the past, such as ‘X happened, then Y happened’ or ‘if X had happened, then Y would have happened’. To express this notion, a factative clause is used with the addition of the strict relative particle (§3.8.6.2). The particle has merged with the subject agreement into portmanteau morphemes. The following examples give an impression of temporal sequencing. Compare especially Gvyuma example (542) without the particle with (543) which expresses two events in a chronological order.

Deeloma

- (540) *á-zà* *kàsó-rà* *í-swà* *kwá-hà*
 3SG-go market-PP.on 3SG.SR-buy corn-HA
 ‘s/he went to the market and (then s/he) bought corn’

- (541) *à-yál* *gùbá-l* *í-fú-r=i*
 3SG-take stone-L 3SG.SR-throw-RLT=3SG.OBJ
 ‘s/he took a stone and (then s/he) threw it (the snake) with it’

Gvyuma

- (542) *á-sí* *gùbá-l-á* *swì*
 3SG-take stone-L-REF throw
 ‘s/he took a stone and threw (it)’

- (543) *á-sí* *gùbá-l* *ń-swì*
 3SG-take stone-L 3SG.SR-throw
 ‘s/he took a stone and then (s/he) threw (it)’

Gwaandama

- (544) *yìnà* *ní* *Nàdzì-b* *bàn-dzì-rú*
 3SG.SBJ when Waja-B.2 3PL.SR-come-REL

cíkàr-w-à=ù *nà* *tàsà-w-à* *bá*
 spear-W-REF=DEF COM dish-W-REF ?

bàn-dáw-rə *kwàntsá* *káwóndá-yá=ò* *Piságin=nà*
 3PL.SR-put-REL chief.1 first-1=DEF Pisagin=CF
 ‘it was when the Waja people brought a spear and a dish and (then they) crowned the first chief: Pisagin’ [B-N4]

6.3 Aspect

6.3.1 General remarks

Aspect refers to how an event is distributed over time and how the situation is viewed from the inside. The question is therefore whether the situation is static or not, whether it has an endpoint or not and whether it occurs more than once (Kroeger 2015: 147, 152). Many languages are said to have a binary aspect distinction, such as imperfective vs. perfective. In Nungvrama, this binary distinction is not applicable, as explained below and in the following subchapters. Nevertheless, aspect remains the most frequently used TAM category in Nungvrama.

In Nungvrama, the unmarked verb stem makes a valid text word and is referred to as factative (cf. §6.3.2 for more details). The factative is the most used TAM category in my data and is employed to express general truths, tell stories and talk about events. All other aspectual categories, namely imperfective (§6.3.3), past progressive (§6.3.4) and aspectual future (§6.3.4), are expressed using preverbal markers, and, except for the past progressive, the final vowel (cf. §6.2.2). In most cases, the preverbal aspectual markers have merged with the subject agreement markers, sometimes causing tone changes on the verb.³²² The progressive (§6.3.6) stands out as it is a construction that comprises a periphrastic progressive clause and another clause that is mostly in the imperfective or past progressive.

The following table summarises how the different preverbal markers and other morphemes form the various aspects.

³²² The preverbal markers are not analysed as auxiliaries, i.e. they are not considered to be morphosyntactically placed in the position of the verb to mark aspect (cf. Payne 1997: 84). As a result, they are seen as nonverbal, because the reconstructed preverbal markers, before merging with the subject agreement markers, do not resemble any verb in Nungvrama. Instead they have the typical syllable structure of grammatical morphemes (cf. especially §6.3.3 and 6.3.6). They are therefore not referred to as ‘STAMP morphs’, a term proposed by Anderson (2016) (other labels include ‘tense-person complex’, ‘pronominal predicative markers’ or ‘pronominal auxiliaries’ (Anderson 2016: 513)), although the existence of STAMP morphs is one of the characteristic features of the Macro-Sudan Belt, of which the ‘Adamawa’ languages, including Nungvrama, are a part. According to Anderson (2016: 513), they are typically “portmanteau morphs that encode the referent properties of semantic arguments that typically play the syntactic role of ‘S[ubject]’ – that is, the person, number and gender properties of such an actant – in combination with categories of T[ense], A[spect], M[ood] and P[olarity]”, i.e. the STAMP morph together with the verb “encode the TAM categories of the event” (Anderson 2016: 515). STAMP morphs develop from auxiliary verb constructions that contain “a lexical verb element that contributes lexical content to the construction and an auxiliary verb element that contributes some grammatical or functional content to the construction” (Anderson 2006: 7). Eventually, the auxiliary fuses “into a single portmanteau complex” (Anderson 2016: 522) with a pronoun. To conclude, I prefer not to use the term ‘STAMP morph’ in Nungvrama since there is no indication that the preverbal aspect markers are auxiliaries. They also do not merge with a subject pronoun but a subject agreement marker and do not include the categories of tense, mood and polarity.

	Deeləmə	Guyuma	Gwaandama
Factative	AGR-V	AGR-V	AGR-V
Imperfective	AGR.IMP-V	AGR.IMP-V-FV	AGR.IMP-V-FV
Future	AGR.FUT-V-FV	AGR.FUT-V-FV	AGR.FUT-V-FV
Past progressive	PROG=AGR-V	PROG=AGR-V / AGR-PROG-V	PROG=AGR-V
Progressive	COP=PRG (clause)	COP PRG (clause)	COP=PRG (clause)

Table 62. Tense and aspect marking in Nvngvrama

(Abbreviations (in order of occurrence): AGR = subject agreement marker, V = verb stem, IMP = imperfective, FV = final vowel, FUT = future, PROG = progressive preverbal marker, PRG = progressive)

As previously stated, the TAM system in Nvngvrama does not rely on a binary distinction, but instead on a single, general category (a phenomenon referred to as a “default semantic characterization” by Tröbs (2019: 281)). This category can be altered in various ways to specify the circumstances of the statement, such as whether the action is completed, in process or likely to occur in the future. This non-binary system can be observed in many languages of the Macro-Sudan belt, including most ‘Adamawa’ languages and surrounding Chadic languages, and therefore appears to be an areal feature (Kastenholz 2019).³²³

6.3.2 Factative

As mentioned above, Nvngvrama has one primary aspectual category that is considered the most basic, because unmarked, form. The term ‘factative’, as described by Nurse et al. (2010, 2016), is applicable. The term has been coined by Welmers (1973: 52) and has since been identified as an areal feature in West African languages (Nurse et al. 2016: 5, cf. Kastenholz 2019).³²⁴ The factative differentiates between dynamic and stative verbs: with dynamic verbs, the factative denotes completed situations, while with stative verbs, an incomplete reading in the present or future is generated (Nurse et al. 2016: 25) (cf. examples (547) to (549), (553) to (554) and (558) to (559)).

Deeləmə
(545) *ná-zà*
1SG-go
‘I went’

³²³ For example, Kastenholz (2017: 19) reports for Bolgo, an ‘Adamawa’ language, as well as other ‘Adamawa’ languages in the same region (i.e. in Moyen-Chari and Guéra in the south of Chad) that “la base verbale non marquée est une forme valide pour fonder une prédication. Cette forme est neutre en ce qui concerne temps ou aspect” [= the unmarked verbal base is a valid form to constitute a predication. This form is neutral in regard to tense and aspect (translated by the author)]. Winkelmann (2019: 301) describes a similar situation for certain Gur languages that have an unmarked (perfective) form. This form is considered default and “aspectually neutral in some contexts”.

³²⁴ For Gwaandama, Sabe (e.g. 1995: 165, 400) refers to it as ‘simple past (tense)’.

- (546) *bá-bú* *á* *gúbá-l-dà* *bá-dàw*
 3PL-climb SPAT stone-L-PP.on 3PL-lie.down
 ‘they climbed onto the stone, they laid down’
- (547) *Framá* *à-fím* *ára ǝ-tà*
 Frama 3SG-know answer-TA
 ‘Frama knows the answer’
- (548) *ká-níngà* *tú-’à* *hámá-’à* *nè* *Yámbò*
 1PL-give speech-A.6 good-6 INST God
 ‘we believe in God’ (lit. we give a good speech with God)
- (549) *ná-dàngà* *yír-à* *yà-m=nà*
 1SG-remember woman-F.1 1-DEM3=CF
 ‘I remember that woman’

Guyuma

- (550) *áwò* *mwári-y-á* *á-cí* *tákádà-w* *ǝw-à*
 yes older.brother-Y-REF 3SG-read book-W.3 3-DEM1
 ‘yes, the older brother read this book’
- (551) *á-kùwè*
 3SG-pour
 ‘s/he poured [them]’ (B. Newman 1978: 37)
- (552) *ná-cín* *iyà*
 1SG-meet 3SG.OBJ
 ‘I met him’
- (553) *na-tsim=ga* *na* *ma=v=ga*
 1SG-know=NEG thing DEM3=DEF=NEG
 ‘I don’t know this’ (Newman 1976: 57)
- (554) *ka-zir* *je*
 1PL-like 2PL.OBJ
 ‘we like you’ (Newman 1976: 42)

Gwaandama

- (555) *á-kwálgá*
 3SG-fold
 ‘s/he folded [it]’ (Sabe 1995: 165)
- (556) *bà-dzà=ú* *dzilà*
 3SG-go=VEN yesterday
 ‘they came yesterday’ [S-N2]
- (557) *ná-dá=v* *kwàr-ká* *yàdà-w-rà* *wí?*
 1SG-put=VEN medicine-KA bed-W-PP.on INT
 ‘did I put the medicine on the bed?’ (Sabe 1995: 405)

- (558) *ní* *nà-tsím* *wí*
 1SG.SBJ 1SG-know INT
 ‘me, do I know?’
- (559) *yíná* *yà* *mwára* *í*
 3SG.SBJ place.A.6 big.6 REL.6
- bǔ* *bà-tsím=nà*
 3PL.SBJ 3PL-know=CF
 ‘it became the headquarters (lit. big place) that they know’ [B-N4]

In Deeləmə, the tone of the 3SG subject agreement marker changes to a low tone when the verb displays a high tone. This change is due to a morphotonemic rule called ‘tonal polarisation’, where the tone of the agreement marker contrasts with that of the following TBU (cf. §2.2.2). For comparison, see examples (560) and (561), with the latter displaying tonal polarisation.

- Deeləmə**
- (560) *zóból-y-á* *á-nǎ* *sá-’ǎ*
 boy-Y.1-REF 1-hear song-A
 ‘the boy heard a song’
- (561) *à-fǔ* *nǎm-à*
 3SG-cut meat-W
 ‘s/he cut (a piece of) meat’

According to B. Newman (1978: 43), in the Gvɔvɔma factative, the tone of the second syllable of a verb is occasionally influenced by that of a following morpheme. No such occurrences were found elsewhere in the data.

6.3.3 Imperfective

The imperfective expresses incomplete situations, presenting them as ongoing processes and viewing them from the inside. Imperfective constructions can also convey habitual or progressive meanings. They can refer to past or future situations (often indicated by adverbs), although they typically have a default present reference (Payne 1997: 239).

In Nvngvɔrama, the imperfective formally differs from the factative in two ways. Firstly, in Gvɔvɔma and Gwaandama, the FV is suffixed to the verb, whereas the verb in Deeləmə is not marked by a suffix. Secondly, a preverbal aspect marker, that has merged with the subject agreement markers into portmanteau morphemes, precedes the verb.

The portmanteau morphemes that entail the subject agreement markers and the imperfective marker are listed in the following tables.

	Deeləmə	Gvyvma	Gwaandama
1SG.IMP	ná-	ná ^l -	ná ^l -
2SG.IMP	mà-	nà-	mà ^l -
3SG.IMP	hàní- (verbal clauses) Ø- (non-verbal clauses)	à- (verbal clauses) Ø- (non-verbal clauses)	à ^l - (verbal clauses) Ø- (non-verbal clauses)
1PL.INCL.IMP	kà-	kà-	kà ^l -
1PL.EXCL.IMP	ká-	ká ^l -	ká ^l -
2PL.IMP	ká-	kà-	kà ^l -
3PL.IMP	bá-	bá ^l -/bà-	bà ^l -

Table 63. Subject agreement markers for first, second and third person with the preverbal imperfective marker³²⁵

	Deeləmə		Gvyvma		Gwaandama	
	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses
1	á-	Ø-	á-	Ø-	á-	Ø-
2	bá-	bá-	bá ^l - / bà-	bá ^l - / bà-	bà ^l -	bà ^l -
3	á-	Ø-	á-	Ø-	á-	Ø-
4	bá-	bá-	bá ^l - / bà-	bá ^l - / bà-	bà ^l -	bà ^l -
5	á-	Ø-	á-	Ø-	á-	Ø-
6	á-	Ø-	á-	Ø-	bà ^l -	Ø-
7	á-	Ø-	á-	Ø-	á-	Ø-
8	á-	Ø-	á-	Ø-	bà ^l -	Ø-
9	á-	Ø-	á-	Ø-	á-	Ø-

Table 64. Subject agreement markers in agreement classes 1 to 9 with the preverbal imperfective marker³²⁶

I hypothesise that the imperfective marker can be reconstructed as *à: In Deeləmə and Gwaandama, the subject agreement markers occurring in an imperfective construction are clearly distinct from the general subject agreement markers because the vowel changes from Schwa to /a/ (except in 3SG). Furthermore, Gwaandama has a floating low tone that attaches to the following TBU, which is always the first syllable of the verb stem. In Gvyvma, the subject agreement markers occurring in the factative differ only tonally from those in the imperfective. Those displaying a high tone have a floating low tone, which may be a remnant of a lost or merged imperfective marker. Conversely, those with a low tone may have absorbed the marker, leaving no trace, or, alternatively, the marker may have been lost completely. However, the disyllabic morpheme for 3SG.IMP in Deeləmə

³²⁵ Sources for Gvyvma: Newman/Newman 1974: 113, B. Newman 1978: 41 and own data. Sources for Gwaandama: Sabe 1995: 405ff., 2014: 45f., [S-N2] and own data.

³²⁶ Sources for Gvyvma and Gwaandama, cf. previous footnote.

cannot be explained with the aforementioned considerations. Currently, no alternative explanation is available.

The following sections discuss the imperfective in Deeləmə, Gyyuma and Gwaandama separately as the construction of the imperfective differs between these three varieties and the phonologically dependent object pronouns change compared to their occurrence with the factative.

Deeləmə

In Deeləmə, the imperfective construction is distinguished from the factative only by the presence of an imperfective aspect marker. This is in contrast to Gyyuma and Gwaandama, where the verb also acquires the FV. It is possible that the FV was once present in Deeləmə but was lost, perhaps for economic reasons. However, this is merely a hypothesis for which there is no evidence in the data. The following clauses exemplify the imperfective in Deeləmə.

(562) *yír-á á kàsú-yá hànì-bà kwá-hà*
 woman-F.DEF SPAT market-PP.inside 3SG.IMP-sell corn-HA.REF
 ‘the woman at the market sells corn (right now/regularly)’

(563) *má-fû-n jəm-à*
 2SG.IMP-cut-PLU meat-W.REF
 ‘you are cutting meat (into pieces)’

(564) *bá-fû-n jəm-à*
 3PL.IMP-cut-PLU meat-W.REF
 ‘they are cutting meat (into pieces)’

(565) *hànì-bálà wàsìkà-hà*
 3SG.IMP-write letter-HA.REF
 ‘s/he writes letters (regularly)’

(566) *fúrí-w-ə ná-dətà gówòn-l-à*
 bird-W-REF 1SG.IMP-think eagle-L-REF
 ‘the bird, I am thinking an eagle [came out and flew away]’

The table below summarises the dependent object pronouns that can occur in imperfective constructions. They are slightly different from those used in factative constructions (cf. §3.6.3).

1SG.OBJ	= <i>Ò</i>
2SG.OBJ	= <i>Vm</i>
3SG.OBJ	= <i>Í</i>
3PL.OBJ	= <i>b(Á)</i>

Table 65. Object pronouns in imperfective constructions in Deeləmə

The 1SG.OBJ is a back vowel that ranges from [u]/[ʊ] to [o]/[ɔ]. It may merge with the preceding vowel or follow it in which case an approximant [w] is inserted between the two vowels (not indicated in the examples, cf. §2.1.3.3). It is not yet clear whether this is free variation among speakers or a rule that has yet to be determined.

- (567) *hàní-níngò* *takarda-w-a*
 3SG.IMP-give.1SG.OBJ book-W-REF
 ‘s/he is giving me a book’
- (568) *hòyá-w-à* *hàní-ján=ò*
 snake-W-REF 3SG.IMP-bite=1SG.OBJ
 ‘the snake bites me’
- (569) *hàní-zwà=ù* *zwà-kà*
 3SG.IMP-ask.1SG.OBJ question-KA.REF
 ‘s/he is asking me a question’

Like with the factative, the 2SG.OBJ has an underspecified vowel without an inherent tone. The vowel undergoes changes that cannot be predicted.

- (570) *hàní-swàm* *fwá-w-à*
 3SG.IMP-buy.2SG.OBJ house-W-REF
 ‘s/he is buying you a house’
- (571) *hàní-zwùm* *zwà-kà*
 3SG.IMP-ask.2SG.OBJ question-KA.REF
 ‘s/he is asking you a question’

The 3SG.OBJ also has an underspecified vowel. It tends to be a front vowel, which typically merges with the preceding vowel.

- (572) *hàní-swé* *fwá-w-à*
 3SG.IMP-buy.3SG.OBJ house-W-REF
 ‘s/he is buying him/her a house’
- (573) *hàní-zwí* *zwà-kà*
 3SG.IMP-ask.3SG.OBJ question-KA.REF
 ‘s/he is asking him/her a question’

Guyuma

In contrast to Deeləmə, the imperfective in Guyuma is indicated not only by the preverbal imperfective marker that has merged with the subject agreement markers, but also by the display of the FV.

Some of the portmanteau morphemes, which consist of the imperfective marker and the subject agreement markers, have a floating low tone (refer to Table 63), causing a non-automatic downstep on the following TBU of the verb stem. In other words, when the TBU displays a high tone, the pitch is lowered by the floating tone, as shown in example

(574). The floating low tone as no effect on a TBU with a low tone, i.e. the low tone remains. When a monosyllabic verb ends in /a/ or /e/, that vowel merges with the FV -Á and the resulting syllable takes on the high tone of the FV, regardless of whether it was low or downstepped,³²⁷ e.g.

/ná^l-bà-Á/ [ná^hbá] ‘I sell’ (B. Newman 1978: 40)

The following clauses are examples of the imperfective in Gvyyɔma.

(574) /ná^l-cín-é yà/
 ná-[↓]cín-é yà
 1SG.IMP-meet-FV 3SG.OBJ
 ‘I meet him (often/repeatedly)’

(575) à-cúm-é nà-w-à
 3SG.IMP-cut-FV meat-W-REF
 ‘s/he is cutting meat’

(576) dɔ̀-w-á á³²⁸-yá
 rain-W-REF 3.IMP-fall.FV
 ‘it is raining’ (lit. rain falls)

(577) ná-ɲwá sùn-è
 1SG.IMP-buy.FV food-A.REF
 ‘I am buying food / I buy food regularly’

(578) à-zwé
 3SG.IMP-ask.FV
 ‘[he saw the child of Sheep and] he was asking’ (B. Newman 1978: 37)

The table below summarises the object pronouns used in imperfective clauses, which differ slightly from the basic object pronouns (cf. §3.6.3).

1SG.OBJ	=n ^h
2SG.OBJ	=V ^h m
3SG.OBJ	=I ^h
3PL.OBJ	=b ^h A

Table 66. Object pronouns in imperfective constructions in Gvyyɔma

The 2SG.OBJ has an underspecified (back?)³²⁹ vowel that either merges with the final vowel of the verb or replaces it.

ɲwá ‘to buy’ → ɲwóm ‘buy(ing) you’
 zwè ‘to ask’ → zwúm ‘ask(ing) you’

³²⁷ For additional information on tone patterns, cf. B. Newman (1978: 42f.), although it must be borne in mind that her analysis differs from the one presented here.

³²⁸ This pronoun is typically inaudible in regular (non-elicited) speech, as it appears to merge with the final vowel of the preceding noun.

³²⁹ An exception is *nìngà* ‘to give’ → *nìngám* ‘give/giving you’.

In contrast to a factative construction, the 3SG.OBJ clitic in an imperfective construction does not merge with the preceding vowel but is instead suffixed to it, as are the other object pronouns that occur in imperfective constructions. For examples, see the following clauses.

(579) *ná-márná=i* *kàràtú-w-á*
 1SG.IMP-teach.FV=3SG.OBJ reading-W-REF
 ‘I teach someone (him/her) to read’

(580) *à-ɲwá=ní* *fɰá-w-à*
 3SG.IMP-buy.FV=1SG.OBJ house-W-REF
 ‘s/he is buying me a house’

(581) *à-ɲìngá=bà* *léngèlèrè-l-è*
 3SG.IMP-give.FV=3PL.OBJ book-L-REF
 ‘s/he gives them a book’

Gwaandama

The imperfective construction in Gwaandama consists of the subject agreement marker that has merged with the imperfective preverbal marker, the verb stem and the FV (which displays a high tone, as in Gvyɔma).

The first TBU of the verb stem is always downstepped as the floating tone of the imperfective marker attaches to it.

(582) *ná-⁺wàr-á* *dí-ká*
 1SG.IMP-pull-FV rope-KA.REF
 ‘I pull a rope / I am pulling a rope / I regularly pull a rope’ (Sabe 1995: 393)

(583) *ná-⁺mwàb-á* *tswá-w-á*
 1SG.IMP-build-FV house-W.REF
 ‘I build a house / I am building a house / I always/regularly build a house’

(584) *à-ǰá* *ɲì* *dà* *yá lá* *dzà-hún³³⁰*
 3SG.IMP-eat.FV thing.A eat day.A.6 all-6
 ‘s/he eats food everyday’ (Sabe 1989: 58)

(585) *máà³³¹-dzá* *dzìlá*
 2SG.IMP-go.FV yesterday
 ‘you were to go yesterday’ (Sabe 1995: 164)

³³⁰ This agreement marker has an unusual shape. It may have merged with the CF marker.

³³¹ It is unclear why the pronoun is *máà* instead of *mà*. It is possible that the aspect marker is retained in this context.

progressively. No distinction is made as to the probability of the proposition, i.e. how certain the speaker is about the truth value of his statement. Thus, a statement such as the following can have multiple interpretations:

- Deeləmə**
 (592) *Frámà à-ǰv-n-á ɲəm-à kəl:á kəl:á*
 Frama 3SG.FUT-cut-PLU-FV meat-W small small
 ‘(probably / surely) Frama will cut / will be cutting meat into small pieces’

In Nvngvrama, the aspectual future is expressed in all three varieties using the FV and an aspectual marker that has merged with the subject agreement markers. These portmanteau morphemes are depicted in the following table:

	Deeləmə	Gvɣvma	Gwaandama
1SG.FUT	<i>nə-</i>	<i>ń-</i>	<i>ná-</i>
2SG.FUT	<i>má-</i>	<i>ñ-</i>	<i>mə-</i>
3SG.FUT	<i>à-</i>	<i>∅^L-</i>	<i>à-</i>
1PL.INCL.FUT	<i>kə-</i>	<i>kə-</i>	<i>kə-</i>
1PL.EXCL.FUT	<i>ká-</i>	<i>ká⁻³³³</i>	<i>ká-</i>
2PL.FUT	<i>ká-</i>	<i>kə-</i>	<i>kə⁻³³⁴</i>
3PL.FUT	<i>bá-</i>	<i>bá- / bə⁻³³⁵</i>	<i>bá-</i>

Table 68. Subject agreement markers with the preverbal future marker³³⁶

	Deeləmə		Gvɣvma		Gwaandama	
	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses	Verbal clauses	Non-verbal clauses
1	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>à-</i>	<i>∅-</i>
2	<i>bá-</i>	<i>bə-</i>	<i>bá- / bə-</i>	<i>bá- / bə-</i>	<i>bá-</i>	<i>bá-</i>
3	<i>à-</i>	<i>á-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>à-</i>	<i>∅-</i>
4	<i>bá-</i>	<i>bə-</i>	<i>bá- / bə-</i>	<i>bá- / bə-</i>	<i>bá-</i>	<i>bá-</i>
5	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>à-</i>	<i>∅-</i>
6	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>bá-</i>	<i>∅-</i>
7	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>à-</i>	<i>∅-</i>
8	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>bá-</i>	<i>∅-</i>
9	<i>à-</i>	<i>∅-</i>	<i>∅^L-</i>	<i>∅^L-</i>	<i>à-</i>	<i>∅-</i>

Table 69. Subject agreement markers in classes 1 to 9 with the preverbal future marker³³⁷

³³³ In B. Newman (1978: 41), the vowels for the plural pronouns are depicted as /i/ instead of /ə/.

³³⁴ Sabe (1995: 415) provides one example of *ká*, i.e. 2PL.FUT with a high tone.

³³⁵ Newman (1976: 54) provides one example where the third person plural is *ba* instead of *bə*.

³³⁶ Sources for Gvɣvma: Newman/Newman 1974: 113, B. Newman 1978: 41 and own data.

Sources for Gwaandama: Sabe 1995: 405ff., 2014: 45f., [S-N2] and own data.

³³⁷ Sources for Gvɣvma and Gwaandama, cf. previous footnote.

In Deeləmə and Gwaandama, the only differences to the agreement markers that occur in a factative construction are tonal (all singular forms in Deeləmə, 3SG in Gwaandama), while in Gʷyʷma, the distinctions are vocal: in the singular, the portmanteau morphemes show attrition, i.e. the vowels are dropped, even resulting in a zero morpheme for 3SG, with only a floating low tone remaining³³⁸. The plural shows some kind of mitigation or vowel weakening. This is particularly significant because the basic agreement markers show Schwa in Deeləmə and Gwaandama, but not in Gʷyʷma. Therefore, a possible reconstruction of the preverbal future marker is *ə, perhaps with a low tone or a polar tone.

Although the construction of the future is the same in all three varieties, the phonologically dependent object pronouns differ. Therefore, the future is described separately for each variety in the following sections. Future notions are also expressed with modal verbs, as described in §6.4.

Deeləmə

In Deeləmə, the future is formed by combining the preverbal future marker with the subject agreement markers and the verbs with the FV -*á*. If the verb ends with the vowel /A/, the verbal suffix merges with it, as examples (593) and (594) illustrate.

- (593) *dù-w-à* *à-yá*
rain-W-REF 3.FUT-fall.FV
‘it will rain’ (lit. rain will fall)
- (594) *à-wáhá*
5.FUT-break.FV
‘[if you put a stone into this bag] it will break’
- (595) *má-ɲim-á*³³⁹
2SG.FUT-die-FV
‘you will die’
- (596) *nə-móm-á* *fwá* *zíráyà*
1SG.FUT-build-FV house soon
‘I will build a house soon’
- (597) *bá-fá* *gwán-w-à*
3PL.FUT-find.FV car-W-REF
‘they will have a car’ (lit. they will find a car)

The dependent object pronouns used in the aspectual future differ morphosyntactically from the object pronouns described in §3.6.3 and also from those in Gʷyʷma and Gwaandama in the aspectual future (compare below). They are not only different in shape,

³³⁸ As the subject agreement marker is *á*, the floating low tone must be a remnant of the aspect marker. The functional load therefore appears to be in the tone.

³³⁹ The vowel of the verb changes when the suffix is added. The basic form is *ɲim* ‘to die’.

but they also precede the verb stem, making them proclitics instead of enclitics. The verbal attraction of object pronouns becomes especially apparent in these cases, as they directly attach to the verb root. However, this presents an analytical problem: although they are separate lexical items, they appear between the subject agreement markers that has merged with the future marker and the verb root, causing the agreement and aspect marker to move away from the verb root.

1SG.OBJ	<i>ní-</i>
2SG.OBJ	<i>ám-</i>
3SG.OBJ	<i>á-</i>
3PL.OBJ	<i>àb-</i>

Table 70. Object pronouns in aspectual future constructions in Deelama

The proximity to the verb root is made evident by a hyphen as a sign for an affix (in lieu of an equals sign for clitics). This is illustrated in the following example.

- (598) *à-ní-swá* *fwá-w-à*
 3SG.FUT-1SG.OBJ-buy.FV house-W-REF
 ‘s/he will buy me a house’

The 2SG, 3SG and 3PL object pronouns merge with the portmanteau morphemes of the subject agreement markers and the future aspect marker into even more complex portmanteau morphemes, e.g.

- /nà-/ + /ám=/* → *[nám]* ‘I will X you’
/à-/ + /àb=/ → *[àb]* ‘s/he will X them’

The results of the merging process are demonstrated in the examples below.

- (599) *nám-hintír-á*
 1SG.FUT.2SG.OBJ-teach-FV
 ‘I will teach you’
- (600) *ám-zwá* *zwà-kà*
 3SG.FUT.2SG.OBJ-ask.FV question-KA.REF
 ‘s/he will ask you a question’
- (601) *à:-swá* *fwá-w-à*
 3SG.FUT.3PL.OBJ-buy.FV house-W-REF
 ‘s/he will buy him/her a house’
- (602) *àb-swá* *fwá-w-à*
 3SG.FUT.3PL.OBJ-buy.FV house-W-REF
 ‘s/he will buy them a house’

Guyuma

To construct the aspectual future in Guyuma, the preverbal future marker merges with the subject agreement marker and the verb acquires the FV. Sometimes, a suprasegmental nasalisation occurs on the last vowel of the phonological word. It indicates nonpast tense (cf. §6.2.2).

Unlike in the imperfective and in contrast to Deeləmə and Gwaandama, the FV displays a low tone. The verb retains its base tone with one exception: a high tone is downstepped when it follows 3SG.FUT (cf. example (605)).

- (603) *dù-w-á* \emptyset -[↓]*zà=wà*
 rain-W-REF 3.FUT-go.FV=VEN
 ‘it will rain’ (lit. rain will come)
- (604) *̀̀n-yím-à*
 1SG.FUT-die-FV
 ‘you will die’
- (605) *kóǹ̀̀kóǹ̀̀* \emptyset -[↓]*cúm-è* *̀̀nà-w-á*
 surely 3SG.FUT-cut-FV meat-W-REF
 ‘surely s/he will cut meat’
- (606) \emptyset -*dàw-à̃* *dù-m-á*
 3SG.FUT-sleep-FV.NPST sleep-M-REF
 ‘s/he will sleep’
- (607) *ká-̀̀n-wá-r-[↑]á³⁴⁰* *bèlì-w-é*
 1PL.EXCL.FUT-buy-RLT-FV cow-W-REF
 ‘we will buy a cow with it [farm produce]’³⁴¹ (Newman/Newman 1977b: 70)
- (608) *láp̀̀kà=ĩ*
 harvest.FV=3SG.OBJ.NPST
 ‘will harvest him’ (B. Newman 1978: 43)

Object pronouns occurring in the aspectual future exhibit only minor differences compared to the object pronoun paradigm used in the factative. However, note the distinct nasals of the 1SG.OBJ in imperfective and future constructions (=n[̃] vs. =n[̂]).

³⁴⁰ The example displays a high tone for the FV. In Newman/Newman (1974: 116), tone changes after the verb extension *-r* are explained by tone copying from the following object, i.e. the verbal suffix copies the tone of the following TBU. However, this explanation does not apply to this example or any other case occurring in the data. The change from a low to a high tone on the FV is caused by a floating high tone of the relational verb extension that attaches to the following TBU (for details, cf. §3.3.3.3).

³⁴¹ Translated as ‘let’s buy a cow’ in Newman/Newman (1977b: 70).

1SG.OBJ	= <i>ní</i>
2SG.OBJ	= <i>m</i>
3SG.OBJ	= <i>í</i>
3PL.OBJ	= <i>bÁ</i>

Table 71. Object pronouns in aspectual future constructions in Gvyyvma

Unlike with the other 2SG object pronouns, the object pronoun in the aspectual future does not cause a change in the preceding vowel.

nwà ‘to buy’ → *nwàm* ‘will buy you’

Below are examples of clauses in the future that include object pronouns.

(609) *n-ba=m* *yabriya*
 1SG.FUT-throw.FV=2SG.OBJ outside
 ‘I’ll throw you outside’ (Newman 1976: 43)

(610) *Ø-nwá=ní* *fwà-w-á*
 3SG.FUT-buy.FV=1SG.OBJ house-W-REF
 ‘s/he will buy me a house’

Gwaandama

Sabe (1995: 171) claims that Nungvrama does not have a future tense. Instead, different “constructions for expressing future time [...] by means of modal auxiliaries or by the simple present/present progressive [i.e. imperfective]” must be used (cf. §6.4.2 for examples). However, I would like to argue that Sabe’s examples suggest that there is, in fact, a distinct construction that expresses future. This construction is not a tense but an aspectual form that derives from the imperfective. Both the imperfective and future constructions require the addition of the FV *-Á*, however, different aspectual markers are used. The first syllable of the verb appears to copy the tone of the preceding portmanteau morpheme.³⁴²

(611) *ná-bùl-á* *àfá.ná-w-á*
 1SG.FUT-strike-FV match-W-REF
 ‘I shall/will strike a match’ (Sabe 1995: 415)

(612) *mà-bùl-á* *àfá.ná-w-á*
 2SG.FUT-strike-FV match-W-REF
 ‘you shall/will strike a match’ (Sabe 1995: 415)

(613) *ná-tsá* *tsàtsà-m-à*
 2SG.FUT-urinate.FV urine-M-REF
 ‘I will urinate’ (Sabe 1995: 418)

³⁴² This analysis is at least supported by the examples in Sabe (1995: 415f.) and [S-N2].

- (614) *à-wàká*
 3SG.FUT-wash.FV
 ‘s/he will wash’ [S-N2]
- (615) *bá-wáka*
 3PL.FUT-wash.FV
 ‘they will wash’ [S-N2]

Only the form of the 3SG.OBJ clitic could be established in aspectual future constructions in Gwaandama due to the limited availability of data on object pronoun clitics.

1SG.OBJ	?
2SG.OBJ	?
3SG.OBJ	= <i>í</i>
3PL.OBJ	?

Table 72. Object pronouns in aspectual future constructions in Gwaandama

Below are examples of the 3SG.OBJ in future constructions in Gwaandama.

- (616) *kà-ár-á=i* *nà.dúkùn*
 1PL.INCL.FUT-call-FV=3SG.OBJ like.that
 ‘we will call him like that’ [B-N4]
- (617) *kà-tú-á=i*
 1PL.INCL.FUT-bury-FV=3SG.OBJ
 ‘[if a snake bites him, it is us] we will bury him’ [B-N1]

6.3.5 Past Progressive

A progressive is defined as an ongoing process, describing “a relation between a dynamic situation and a point in time” (Dahl 1985: 91), “without any indication of its completion” (Dahl 1985: 24). In Nvngvrama, the imperfective can have a progressive reading, as discussed in §6.3.3. In addition, there is a periphrastic construction originating from a locational predicate (cf. §6.3.6). This chapter discusses a yet different construction that expresses the progressive with a special reference to the past. According to B. Newman (1978: 37f.), the past progressive in Nvngvrama is “closely related in time sequence to the previous clause and may also be a logical result of the previous clause” (cf. examples (621) and (622) below). It can also be used for foregrounding “when a new scene begins with some character in the middle of an action as the curtain goes up” (B. Newman 1978: 38) (cf. examples (624) and (623)).

The past progressive in Nvngvrama is expressed using the preverbal particle *na=* (§3.8.6.3) and the bare verb form in Deeləmə and Gwaandama. Gvyvma displays a split in the construction of the progressive. When referring to singular subjects, the progressive particle *na=* is used, like in Deeləmə and Gwaandama. However, when referring to plural subjects, an aspect marker *a-* occurs between the subject agreement marker and the verb

stem (as shown in example (624)). The progressive constructions with reference to the past are depicted in the following examples.

Deelɔmɔ

- (618) *nà=m-fv̄-n* *nɔ̄m-à*
 PROG=2SG-cut-PLU meat-W.REF
 ‘you were cutting meat’
- (619) *ná=ná-gàlì* *á* *lám̀bò-l-è-yà*³⁴³
 PROG=1SG-wait SPAT garden-L-REF-PP.in
 ‘[while my older brother wrote the letter] I was waiting in the garden’
- (620) *ná=ká-zà* *á* *kwầnè-l-è*
 PROG=1PL.EXCL-go SPAT forest-L-REF
 ‘we were walking in the forest [when he stepped on a snake]’

Gvyɔma

- (621) *á-sérè* *nán-fà* *cú-w-è*
 3SG-move PROG.3SG-get other-W-REF
 ‘s/he moved and [as a result] was meeting others’ (B. Newman 1978: 37f.)
- (622) *á-zà=wà* *nán-cùm* *ná-w-à*
 3SG-go=VEN PROG.3SG-cut meat-W-REF
 ‘s/he came [and was] cutting meat’
- (623) *há=gá* *nán-fà=gá*
 COP=NEG PROG.3SG-get=NEG
 ‘[Hyena was searching for skins:] he wasn’t getting any’ (B. Newman 1978: 39)
- (624) *jàmtà-hà* *bà-à-tàm*
 guinea.fowl-HA 3PL-PROG-cry
 ‘[as] the guinea fowls were crying [Rabbit thought of a new plan]’ (B. Newman 1978: 38)

Gwaandama

- (625) *ná=ná-b̀̀l* *àfá.ná-w-á*
 PROG=1SG-strike match-W-REF
 ‘I was striking a match’ (Sabe 1995: 405, 406)
- (626) *nán-b̀̀l* *àfá.ná-w-á*
 PROG.3SG-strike match-W-REF
 ‘s/he was striking a match’ (Sabe 1995: 405)
- (627) *Hauwa* *ár* *Nimjir* *nà=b̀̀-ḡà* *nà-w-à*
 Hauwa and Nyimjir PROG=3PL-eat meat-W-REF
 ‘Hauwa and Nyimjir were eating meat’ (Sabe 1995: 152)

³⁴³ From Hausa *lám̀bū* ‘garden’.

- (628) *Gwà:ndì-b-á* *nà=bà-pìsì-n=bà*
 Gwaanda-B-REF PROG=3PL-shoot-PLU=3PL.OBJ
 ‘Gwaanda people were shooting them’ [B-N4]
- (629) *nà=mà-bà* *mángv̀r̀v̀-ka=ɲí* *kí-bì* *immè*
 PROG=2SG-climb mango.tree-KA.7=PP.inside 7-DEM1 ?
- hàrà* *dá* *flí=nà*
 COP small small=CF
 ‘you used to climb inside this mango tree when you were young’ (Sabe 1995: 155)³⁴⁴

6.3.6 Progressive

As stated in §6.3.4, Nungvrama utilises different constructions to express a progressive notion. The progressive described in this chapter emphasises the process of the action by using a periphrastic construction that combines with another clause, often in the imperfective or past progressive, i.e. having a progressive notion itself. It comprises a copula used in non-verbal clauses (cf. §3.3.2 and §7.3.2), followed by a morpheme =*ɲi* in Deeləmə and Gwaandama (copying the tone from the preceding TBU) and *yè* in Gv̄v̄ma.³⁴⁵ This construction may have originated from a non-verbal clause with a locational predicate meaning ‘X is inside’, as it resembles a construction with the spatial postposition for ‘in/inside’ (-*yá* in Deeləmə and Gv̄v̄ma and =*ɲi* in Gwaandama) (cf. §3.8.3.4). Since it is not the postposition synchronically, but a grammaticalised form of it, the interlinearisation accounts for it by abbreviating it as PRG (=progressive).³⁴⁶

- Deeləmə**
- (630) *há-ɲí* *ná-bàlà* *wàsíkà-w-à*
 COP-PRG 1SG.IMP-write letter-W-REF
 ‘s/he is (still in the process of) writing the letter’
- (631) *bá* *há-ɲí* *ná-mókà*
 COMPL COP.PST-PRG 3SG.IMP-run
- ná=ná-dv̄* *fí* *f̄urí-w-ə=nə*
 PROG=1SG-see some bird-W-REF=CF
 ‘as s/he was (in the process of) running, s/he saw [was seeing] a particular kind of bird’

³⁴⁴ According to Sabe (1995: 155), the progressive construction can also convey a habitual meaning, as the translation in this example shows.

³⁴⁵ In Gwaandama, the morpheme =*ɲi* is a clitic as it follows the copula in an affirmative clause, but the negative particle in a negative clause (cf. example (635)). It is assumed that this is also the case in Deeləmə, but no negated examples are attested in the data to verify this assumption. On the other hand, in Gv̄v̄ma, the morpheme *yè* is believed to be a free morpheme as it does not fall within the domain of the ATR vowel harmony of the preceding copula.

³⁴⁶ Not to be confused with PROG, which refers to the preverbal progressive particle.

Guyuma

- (632) *dí* *bá-hà* *yè*
and 3PL-COP.PST PRG
- ú* *á-bár* *sí-l* *dé=ù*
when 3SG-climb.up anthill-L top=DEF
'and they were (in the process of) doing so when he climbed up onto the anthill'

- (633) *zwápnú-w-á=ù* *dí* *zwí-y-é=ù*
bird-W-REF=DEF and child-Y-REF=DEF
- bá-hà* *yè* *bà-à-sà*
3PL-COP.PST PRG 3PL-PROG-run
'the bird and the child were (in the process of) running'

Gwaandama

- (634) *ná-há:=ní* *ná=ná-yú:* *sà-à*
1SG-COP.PST=PRG PROG=1SG-sing song-A.REF
'I was singing [a song]' (Sabe 1995: 157)
- (635) *kà-hà* *gà=ní* *nà=kà-yú:* *sà-à=gá*
2PL-COP.PST NEG=PRG PROG=2PL-sing song-A=NEG
'you (pl) were not singing [a song]' (Sabe 1995: 157)
- (636) *Nanyuuni* *há=ní* *nán-nwà* *dzidzirá-á*
Nanyuuni COP=PRG 3SG.PROG-buy shoe-A
'Nanyuuni is buying shoes' (Sabe 1995: 154)
- (637) *bà-hà=ní* *bà-[†]gwàhá*
3PL-COP=PRG 3PL.IMP-cry.FV
'they are crying' (Sabe 1995: 156)
- (638) *ná-yúwámá=ní³⁴⁷* *ná-[†]gwàrá* *gùngàl-ká=ù*
1SG-COP.FUT.CPL=PRG 1SG.IMP-close.FV door-KA=DEF
'I shall be closing the door' (Sabe 1995: 424)
- (639) *ná-yúwámá=ní* *ná-kùlgá* *bál-ká*
1SG-COP.FUT.CPL=PRG 1SG.IMP-bend.FV stick-KA.REF
'I shall be bending a stick' (Sabe 1995: 425)

³⁴⁷ *yúwámá* is most likely a merged form of *yúwá*, the future copula used in non-verbal clauses, and the completive marker *-ÁmÁ*. The tone of the first TBU is copied from the preceding TBU. Cf. examples (638) and (639) with *mà-yúwámá* 'you shall be'.

6.4 Modality

6.4.1 General remarks

Following Kroeger's (2015) distinction, modality (or mode) is differentiated here from mood. Mood reflects the "speaker's purpose in speaking" (Kroeger 2015: 147, 163, cf. §7.2.2 to §7.2.4), while modality "generally relates to either the speaker's attitude toward the proposition being expressed [...], or the actor's relationship to the described situation" (Kroeger 2015: 147). Modality elaborates on the truth value or certainty of the speaker's proposition. It is, in its narrower sense as defined by Nuyts (2006: 1), "complementary to semantic domains such as tense/time and aspect". However, it should be considered, as Nuyts (2006: 19) shows, to be on "a higher level of abstraction than time and aspect". According to him, the "three basic semantic dimensions" of modality are 'dynamic', 'deontic' and 'epistemic' (Nuyts 2006: 2). De Haan (2006: 29), on the other hand, argues in the same anthology that "the original division in modality is between *epistemic* and *deontic*".³⁴⁸ Despite this disagreement, it is evident that modality encompasses a broad range of meanings (Kroeger 2015: 165).

Modality can be expressed through various means, including modal auxiliary verbs, adverbs, adjectives, or lexical means. It can also be grammatically encoded with tense and/or aspect, or through the use of affixes or particles. In rare cases, modal case may be used (de Haan 2006: 32ff.). In Nungvrama, modality is expressed through modal verbs and a construction in which the verb is repeated. Both means are discussed in the subsequent chapters.

6.4.2 Modal verbs

The corpus contains little data on modal verbs in Guyuma. Therefore, this description focuses on Deeləmə and specifically Gwaandama, as it has the most available data (cf. especially Sabe (1995: 173ff., 239ff.)³⁴⁹).

In Nungvrama, modal verbs generally occur in a matrix clause that is modified by an object complement. The modal verbs can be classified into two groups. The first group involves the same subject agreement marker cliticising to both the modal verb and the verb in the complement. The second group consists of fixed terms with a 3SG subject agreement marker. They may be translated as 'it may be' (in Deeləmə, 3SG can be omitted), 'it should be' and 'it must be'. In both groups, the pronouns for the second

³⁴⁸ "Dynamic modality is often defined as "an ascription of a capacity to the subject-participant of the clause (the subject is able to perform the action expressed by the main verb in the clause)" (Nuyts 2006: 3). "Epistemic modality [...] refers to the degree of certainty the speaker has that what s/he is saying is true. Deontic modality [...] deals with the degree of force exerted on the subject of the sentence to perform an action" (de Haan 2006: 29).

³⁴⁹ It is imperative to note once again that Sabe's analysis is strongly based on English grammar and describes Nungvrama modal verbs from the perspective of English modal verbs. Unfortunately, this cannot be entirely avoided in this paper either, as the description is mainly based on data from Sabe. The description of the modal verb 'must' in particular suggests that a further differentiation of modal verbs may be necessary in Nungvrama.

person, both singular and plural, are omitted (with the exception of clauses with ‘can’), thus making these clauses imperatives.

I suggest that the two groups represent different stages of a grammaticalisation process in which a semantic load shift occurs: the object complements become main clauses semantically, while the matrix clauses are semantically reduced. This is further supported by negated clauses: in group 1 the first negative marker is placed after the modal verb, which is thus considered a full verb, whereas in group 2 the negative marker follows the verb in the complement clause (cf. examples (650) and (655) with example (661), cf. §6.5).

The synchronic situation can be schematised as follows:

Matrix clause		Object complement		
Subject agreement _a -	Modal Verb	Subject agreement _a -	Verb	(Object)
Subject agreement _b -	Modal Verb	Subject agreement _a -	Verb	(Object)

Table 73. Clause constructions with modal verbs

a = subject, *b* = 3SG

The table below depicts the two groups of modal verbs. The discussion of modal verbs will follow the same order as presented here.

	Deeləmə	Gvyvma	Gwaandama	Gloss
Group 1	<i>wùndì</i>	?	<i>wùndì</i>	‘shall, will’
	<i>dáhá</i>	<i>dàhà</i>	<i>dahà</i>	‘can’
	<i>zíbì</i>	?	-	‘may’
Group 2	-	?	<i>mù:ri</i>	‘may’
	<i>dátír / bwàn</i>	?	<i>dátír</i>	‘should’
	<i>fònkwháhá</i>	?	<i>tsúkwháhàv</i>	‘must’

Table 74. Modal verbs

shall, will

The modal verb *wùndì* in both Deeləmə and Gwaandama can be translated as ‘shall, will’. It is preceded by the subject agreement marker that has merged with the future marker (or by a noun as subject) and followed by a future clause. Thus, this construction refers to the person or object twice: before *wùndì* and before the full verb.

Deeləmə

- (640) *à-wùndì* *(à-)cwá* *ɲóm-à*
 3SG.FUT-will (3SG.FUT-)cut.FV meat-W.REF
 ‘s/he will cut meat’

Gwaandama

- (641) *ná-wùndì* *ná-mwáb-á* *tswá-w-á* *dzírá*
 1SG.FUT-will 1SG.FUT-build-FV house-W-REF soon
 ‘I will build a house soon’

- (642) *mà-wùndì* *mà-bùrsé*
 2SG.FUT-will 2SG.FUT-cultivate.FV
 ‘you will cultivate’ [S-N2]

In Deeləmə, there is free variation in whether the subject agreement marker of the complement clause is omitted or not when it refers to 3SG (cf. example (640)). However, in Gwaandama, it is always omitted.³⁵⁰

Deeləmə

- (643) *à-wùndì* *(à-)zà* *bánà*
 3SG.FUT-will (3SG.FUT-)do.FV what
 ‘what will s/he do?’

Gwaandama

- (644) *à-wùndì* *Ø-bùrsé*
 3SG.FUT-will 3SG.FUT-cultivate.FV
 ‘s/he will cultivate’ [S-N2]
- (645) *à-wùndì* *Ø-tswá* *jà-w-à*
 3SG.FUT-will 3SG.FUT-cut.FV meat-W-REF
 ‘s/he will cut meat’

- (646) *dù-w* *wùndì* *Ø-yá* *yá-lá-kà=nì*
 rain-W will 3SG.FUT-fall.FV sun-KA=PP.inside
 ‘it will rain today’ (lit. rain shall fall inside the sun) (Sabe 1995: 171)

In Gwaandama, the construction with the auxiliary *wùndì* ‘will, shall’ is more commonly used to express future notions than the aspectual future described in §6.3.4. This differs from Deeləmə, where the modal verb occurs rarely in comparison to the aspectual future. There are no occurrences of the modal verb in the Guyuma data.

can, be able to, have the authority/power to

The modal verb for ‘can, be able to, have the authority/power to’ must always be preceded by a subject agreement marker or noun and followed by a corresponding subject agreement marker. The only exception is 3SG, which is dropped (cf. example (653)). In Gwaandama, the tone of the first syllable of the verb assimilates to the tone of the preceding subject agreement marker (cf. examples (651) and (652)). The tone is low when following a proper name.

Deeləmə

- (647) *nà-dáhá* *nà-zá* *fwá*
 1SG.FUT-can 1SG.FUT-go.FV house
 ‘I can go home’

³⁵⁰ Sometimes, the pronoun before *wùndì* is also omitted [S-N2]. There is even one example in which there is no pronoun or noun phrase before *wùndì*, but a pronoun (referring to the first person singular!) between *wùndì* and the full verb (Sabe 1995: 171).

- (648) *kà-dáhá* *kà-já* *ǰǰ-’à*
 1PL.INCL.FUT- 1PL.INCL.FUT- food-A.REF
 can eat
 ‘we can eat the food’
Gyuma
- (649) *cí-b* *bà-dàhà* *bà-yá=ù*
 some-B 3PL-can 3PL-appear=VEN
 ‘some [people] were able to come’
- (650) *dí* *ba-daha=ga* *bə-wun-ge*
 if 3PL-can=NEG 3PL-get.up-CAUS
 ‘[...] so that they could not get up (anymore) [...]’ (2. Sam 22, 39) (Wycliffe Bible Translators n.d.)
- Gwaandama**
- (651) *ná-dáhá* *ná-ǰík-á* *swintə-w-ə*
 1SG.FUT-can.FV 1SG.FUT-drive-FV car-W-REF
 ‘I can drive a car’ (Sabe 1995: 240)
- (652) *mə-dáhá* *mə-tù-á* *nì-á* *ĩ*
 2SG.FUT-can.FV 2SG.FUT-talk-FV thing-A.6 6.REL
 ‘can you talk about the thing that [took place when the white man first came here?]' [B-N1]
- (653) *à-dáhá* *Ø-ǰík-á* *swintə-w-ə*
 3SG.FUT-can.FV 3SG.FUT-drive-FV car-W-REF
 ‘s/he can drive a car’ (Sabe 1995: 240)
- (654) *Nalseba* *Ø-dáhá* *nán-ǰík-á* *kèké-w-é*
 Nyalseba 3SG.FUT-can.FV AUX.3SG-drive-FV bike-W-REF
 ‘Nyalseba can ride a bike’ (lit. Nyalseba can she is riding a bike) (Sabe 1995: 177)
- (655) *Bi:fam* *Ø-dáhá* *ǰǰ* *wùn-gǰ*
 Biifam 3SG.FUT-can.FV NEG stand.up-CAUS
- rédiyò-l-á* *lì-bì=gà*
 radio-L.5-REF 5-DEM1=NEG
 ‘Biifam cannot lift this radio’ (Sabe 1995: 154)

may, might

Deeləmə and Gwaandama use etymologically different modal verbs to convey the meaning of ‘may, might’. In some cases, a subject agreement marker is added before the modal verb, as shown in the first three examples below. In other cases, the clause begins with the modal verb. In Deeləmə, the subject agreement marker is optional, i.e. the speaker can choose either option (indicated here with parentheses).

- Deeləmə**
- (656) *(à-)zíbí ná-níngí nù-m-ə*
 (3SG-)may 1SG-give.FV.3SG.OBJ oil-M-REF
 ‘I may give him/her the oil’
- Gwaandama**
- (657) *nə- m̀:ri nə-ná=i lú-m-ə=ù*
 1SG.FUT-may 1SG.FUT-give.FV=3SG.OBJ oil-M-REF=DEF
 ‘I may give him/her the oil’ (Sabe 1995: 243)
- (658) *à- m̀:ri Ø-ná=i lú-m-ə=ù*
 3SG.FUT-may 3SG.FUT-give.FV=3SG.OBJ oil-M-REF=DEF
 ‘s/he may give him/her the oil’ (Sabe 1995: 243)
- (659) *m̀:ri ts̀v̀ yàdà-w-à-rà ní*
 may sit bed-W-REF-PP.on 1SG.POSS
 ‘you may sit on my bed’ (Sabe 1995: 176)
- (660) *m̀:ri d̀v̀-w yá lám-’ə hà dù=jì*
 may rain-W fall.FV cloud-A COP above=PP.inside
 ‘rain may fall, there are clouds in the sky’ (Sabe 1995: 176)
- (661) *m̀:ri bà-fá ǵ bá-á*
 may 3PL-get NEG money-A.6
- í bà-jìrá-nà=gá*
 6.REL 3PL.IMP-look-PLU=NEG
 ‘they may not get the money they are looking for’ (Sabe 1995: 176)

should, ought

To express ‘should, ought’, a fixed construction that can best be translated as ‘it should be’ precedes another clause. In Deeləmə, there are two different modal verbs with the same meaning (*dátír* and *bwàn*). In Gwaandama, it is always *dátír*. The 3SG subject agreement marker is sometimes omitted.

- Deeləmə**
- (662) *à-dátír ź Délà*
 3SG-should go Dele
 ‘you should go to Dele’
- (663) *á-bwàn ź Délà*
 3SG-should go Dele
 ‘you should go to Dele’
- (664) *à-dátír ǹ-jú dí-ká m=nà*
 3SG-should 3SG.SR-wear cloth-KA DEM3=CF
 ‘s/he should wear that cloth’

Gwaandama

- (665) *á-dátír* *kà-gùmnín=ì*
 3SG-should 2PL-help=3SG.OBJ
 ‘you should help him/her’ (lit. it should be that you help him/her) (Sabe 1995: 176)
- (666) *á-dátír* *kwà:-b-á* *bà-hà* *tswá-w* *ánàbí*
 3SG-should guest-B-REF 3PL.IMP-COP house-W now
 ‘the guests should be home by now’ (lit. it should be that the guests are at home now) (Sabe 1995: 177)
- (667) *á-dátír*³⁵¹ *á-ná=ì* *làkì-w-à*
 3SG-should 3SG-give.FV=3SG.OBJ hoe-W-REF
 ‘s/he should give him/her a hoe’ [S-N2]
- (668) *á-dátír* *Ø-hà* *tswá-w* *bà-à* *kùwír* *dì*
 3SG-should 3SG-COP house-W time-A ten if
 ‘s/he should be home by ten o’clock’ (lit. it should be that s/he is at home if the time is ten) (Sabe 1995: 248)

must

The modal verb ‘must’³⁵² is most probably derived from a phrase.³⁵³ The forms of 3SG are different from the regular subject agreement markers. They are *í-* in Deeləmə and *n-*³⁵⁴ in Gwaandama.

Deeləmə

- (669) *á-f̀̀nkwháhá* *Ø-nìngó* *bá-’à*
 3SG-must 2SG-give.1SG.OBJ money-A.REF
 ‘you must give me the money’
- (670) *á-f̀̀nkwháhá* *í-já* *f̂-’à*
 3SG-must 3SG-eat food-A.REF
 ‘s/he must eat the food’
- (671) *á-f̀̀nkwháw* *bá-já* *f̂-’à*
 3SG-must 3PL-eat food-A.REF
 ‘they must eat the food’

Gwaandama

- (672) *á-ts̀̀kwáhàv* *ná-jwá* *kèké-w-á*
 3SG-must 1SG-buy.FV bike-W-REF
 ‘I must buy a bicycle’ (lit. it must be that I buy a bicycle) (Sabe 1995: 246)

³⁵¹ This is the only example where the subject agreement marker and the first TBU of the modal verb display a low tone. The reason is unknown.

³⁵² According to Sabe (1995: 178), Gwaandama has *ts̀̀kwáhàv* and *davkwahav*. There are no examples of the latter in a clause.

³⁵³ Perhaps related to the lexemes *f̂ / ts̀̀* ‘to cut’ and *kwáhà* ‘dry, hard’ [WL-D1, WL-G1].

³⁵⁴ No tone is reported for this pronoun. It may also be a nasalised vowel, as in Deeləmə, which would agree with the syllable structure in Gwaandama.

- (673) *á-tsúkwháhàv* *Ø-jwà* *kèké-w-á*
 3SG-must 2SG-buy.FV bike-W-REF
 ‘you must buy a bicycle’ (Sabe 1995: 246)
- (674) *á-tsúkwháhàv* *n-jwá* *kèké-w-á*
 3SG-must 3SG-buy.FV bike-W-REF
 ‘s/he must buy a bicycle’ (Sabe 1995: 246)
- (675) *á-tsúkwháhàv* *Kú:màr* *n-dzwá-ká*
 3SG-must Kuumər 3SG-finish-CAUS
- kwáháná-w-á* *wà-yv*
 work-W.3-REF 3-3SG.POSS
 ‘Kuumər must finish his work [before he goes home]’ (Sabe 1995: 178)

6.4.3 Verb repetition

In addition to clauses with modal verbs, Nungurama has two constructions that appear to have the same function. They indicate a high degree of certainty or indispensability that the speaker assumes for an event. These constructions are often used as a pragmatic device by the speaker to convince the listener that something did indeed occur (cf. example (679)).³⁵⁵ Although Sabe (1995) does not discuss changes in modality regarding the certainty of the situation, the rest of the data shows that constructions of modal certainty are typically translated with ‘certainly’, ‘really’ or ‘no alternative but’, as illustrated by the following examples from Gyyuma.

Gyyuma

- (676) *á-háb=i*
 3SG-catch=3SG.OBJ
 ‘s/he caught him/her’ (B. Newman 1978: 31)
- (677) *a-háb=i* *háb=àmá*
 3SG-catch=3SG.OBJ catch=CPL
 ‘s/he certainly/really caught him/her’ (B. Newman 1978: 26)

Besides sharing the same function, both constructions have in common that the verb stem is repeated. Object pronouns cliticise to the first verb stem. However, there are also differences between the constructions that require further discussion.

The first construction involves the completive particle =*ÀmÀ*, which attaches to the second verb stem. This construction is only attested in the Gyyuma and Gwaandama data. In Gyyuma, the second TBU of the completive marker always displays a high tone, although a low tone is expected (cf. §3.8.6.5). The tonal rule has not yet been established.

³⁵⁵ Tula, an ‘Adamawa’ language, also exhibits a similar construction. Hall (1954/1956: 159) describes its function as “the idea of duration of state is added to that of action”.

Examples of this first construction are depicted in the following.

Gvyɔma

- (678) *dib-é=ĩ* *dib=émé*
 beat-FV=3SG.OBJ.NPST beat=CPL
 ‘beating him certainly’ (B. Newman 1978: 26)

- (679) *ná-tú=àm* *tú=ámá*
 1SG-tell=2SG.OBJ tell=CPL
 ‘[You didn’t tell me.] I confirm that I did tell you’ (B. Newman 1978: 36)

Gwaandama

- (680) *à-ní* *ná=ámá* *làkì-w-à*
 3SG-give.3SG.OBJ give=CPL hoe-W-REF
 ‘s/he has given him/her a hoe’ [S-N2]

- (681) *bà-dzwì:-r-ì* *dzwì:-r=àmà*
 3PL-beat-RLT=3SG.OBJ beat-RLT=CPL
 ‘they have beaten him/her (with it)’ (Sabe 1995: 158)

- (682) *ná-dáw=i* *dáw=àmà*
 1SG-keep=3SG.OBJ keep=CPL
 ‘I have kept it’ (Sabe 1995: 185)

- (683) *bà-bà=b* *bámà*
 3PL-sell=3PL.OBJ sell.CPL
 ‘they had sold them’ [B-N1]

The second construction does not include the completive particle, but usually adds a suffix *-a*. Additionally, a connector is inserted between the two stems. With only a few examples in the data, the exact shape of the connector has not yet been fully clarified. It is unclear whether it is a free-standing morpheme or a clitic dependent on the ATR value of the preceding verb and if it has inherent tone. In Deeləmə, it may be *nì*, and in Gwaandama, it is probably *ná*. However, it can be stated with confidence that in Gvyɔma, the connector is a free morpheme with a tone that is opposite to that of the preceding TBU. This means that the connector does not have an inherent tone and instead acquires a polar tone. Similar to the suffix *-a*, the function of the connector remains unclear. One hypothesis that requires further investigation is that the second verb may acquire noun-like features through the suffix *-a*, which is similar to NF class A, and that the connector rather functions as an element with the meaning ‘with’.³⁵⁶ However, the suffix does not have the exact shape of the NF class A, nor is the connector identical to the comitative (or instrumental) particle (cf. §4.2.10, §3.8.2 and §3.8.3.2). They are therefore preliminarily glossed as ? and CON.

³⁵⁶ E.g. ‘to run with a run’, ‘to be afraid with fear’.

- Deeləmə**
- (684) *mà-já* *nì* *já-’á* *wǎ*
 2SG-eat CON eat-? INT
 ‘did you (really) eat?’
- Guyuma**
- (685) *sà* *ná* *sà*
 run CON run
 ‘no alternative but to run’ (B. Newman 1978: 32)
- (686) *tè* *ná* *tè*
 stand CON stand
 ‘no alternative but to stand’ (Newman/Newman 1977b: 59, B. Newman 1978: 32)
- (687) *ná-jí* *nà* *jǎ-à*
 1SG-be.afraid CON be.afraid-?
 ‘I am so afraid’
- (688) *bi* *a-cune* *mir*
 COMPL 3SG-join 1PL.INCL.OBJ
- na* *cune* *takai*
 CON join just
 ‘s/he said: s/he certainly did join us together’ (J. Newman 1978: 101)
- (689) *swà-kì-n-dìr* *ná* *swà-kì-n-dìr-á*
 wash-CAUS-PLU-INSTR CON wash-CAUS-PLU-INSTR-?
 ‘nothing left to do but to wash over and over with something’ (B. Newman 1978: 32)
- Gwaandama**
- (690) *bè-wùnā* *tsuà-kà=ṽ* *tsì*
 3PL-get.up hill-KA=DEF PP.under
- bà-wár* *ná* *wàr-á* *bî*
 3PL-go.around CON go.around-? DEM
 ‘they got up from the bottom of the hill, they definitely had to go around like this’ [B-N1]
- (691) *bà-háb=i* *ná* *hàb-á*
 3PL-catch=3SG.OBJ CON catch-?
 ‘s/he was caught’ (lit. they caught him/her) [B-N1]

In the Gwaandama data, one example displays the suffix on the second verb but lacks a connector between the verbs, suggesting a merger of the two constructions.

- (692) *bá-dàngà* *bá-tàna* *tàná*
 3PL-think 3PL-lose lose.?
 ‘[they searched for the cow and] they thought they had definitely lost it [B-N1]

6.5 Negation

Negation is a process that reverses the “logical truth value” (Givón 2001a: 378) of a proposition, rendering it false. However, the scope of negation does not necessarily extend over the entire clause. The part that is not negated is referred to as ‘presupposed’. In verb phrase negation, which is the most common type of negation, it is the subject that “is most typically excluded from the scope of negation” (Givón 2001a: 379). According to Givón (2001a: 382), this type of negation is also the most unspecific type, as it does not clearly define which part of the corresponding affirmative clause is being denied.

In Nungurama, negation of the factative, past progressive and future verb phrases is marked in different ways in intransitive and transitive clauses. In intransitive clauses, negation is single-marked, while in transitive clauses, it is double-marked with a discontinuous morpheme (cf. §3.8.8). The following examples illustrate the use of the negative morphemes.

Deeləmə

- (693) *áyó* *nə-fĩn* *gə* *né* *yá=gà*
 no 1SG-meet NEG with 3SG.OBJ=NEG
 ‘no, I didn’t meet him’ (lit. ...with him)
- (694) *kə-zə* *gə* *títáw-m-à* *yátàdì=gà*
 1PL.INCL.FUT-do.FV NEG work-M-REF tomorrow=NEG
 ‘we will not work tomorrow’
- (695) *mə-ló* *gə* *jíbà* *ból* *wà-m=nà=gà=dà*
 2SG-stop NEG play ball.3 3-DEM3=CF=NEG=if

ná-yál-àmà *mə=nà*
 1SG.IMP-take-CPL 2SG.OBJ=CF
 ‘if you do not stop playing with that ball, I take it away from you’
- (696) *kə-fĩn=gə*
 1PL.EXCL-meet=NEG
 ‘we didn’t meet’
- (697) *nə-zá=gà*
 1SG.FUT-go.FV=NEG
 ‘I will not go’

Gvɔvɔma

- (698) *ná-cìn=gé* *iyà=gà*
 1SG-meet=NEG 3SG.OBJ=NEG
 ‘I did not meet him / I never met him’
- (699) *nà-wu-təre=ge* *swən-e* *ya-a* *didel=ge*
 2SG-cook-RLT=NEG food-A place-A early=NEG
 ‘you didn’t cook the food early’ (Newman 1976: 52)

- (700) *ná-wúmè=gè*
1SG-open=NEG
'I didn't open [it, the door]'
- (701) *n-ningá=gá* *Músá* *tákàdà-wá=v=gà*
1SG.FUT-give.FV=NEG Musa book-W=DEF=NEG
'I will not give the book to Musa'
- (702) *n-zá=gà*
1SG-go.FV=NEG
'I will not go'
- (703) *kà-jě=ni=ge* *wi*
2PL-give=1SG.OBJ=NEG INT
'won't you give it to me?' (Newman 1976: 56)
- (704) *zwó-w-á* *yím-á=gá* *wí*
calf-W-REF die-FV=NEG INT
'won't the calf die?' (Newman/Newman 1977b: 71)
- Gwaandama**
- (705) *Bòrì-b-à* *cí-bà* *bà-tsim* *gá* *yà-á=gá*
Bori-B.2-REF other-2 3PL-know NEG place-A=NEG
'the other Boriba did not know the place' [B-N4]
- (706) *kà-dzù=gá*³⁵⁷
1PL.EXCL-ask=NEG
'we did not ask' [B-N1]
- (707) *nán-búl* *gá* *àfá.ná-w-á=gá*
1SG.SR-strike NEG match-W-REF=NEG
'I hadn't struck a match' (Sabe 1995: 411)
- (708) *ná=ná-búl* *gá* *àfá.ná-w-á=gá*
PROG=1SG-strike NEG match-W-REF=NEG
'I wasn't striking a match' (Sabe 1995: 407)
- (709) *ná-yúwámá* *gá=ni* *ná-búlá* *àfá.ná-w-á=gá*
1SG.FUT-COP.FUT.CPL NEG=inside 1SG.IMP-strike.FV match-W-REF=NEG
'I shall/will not be striking a match' (Sabe 1995: 423)
- (710) *ná-búlá* *gá* *àfá.ná-w-á=gá*
1SG.FUT-strike.FV NEG match-W-REF=NEG
'I shall/will not strike a match' (Sabe 1995: 416)

The completive verbal particle =*AmÁ* is incompatible with negation. Hence, example (711) is ungrammatical. Instead, a negated factative without the particle serves as the

³⁵⁷ The source marks negation with a low tone, although a high tone would be expected.

negated counterpart and can be translated in at least two ways, as demonstrated by the Gwaandama examples (712) and (713).

Gwaandama

- (711) **nə-búl=àmà* *gə́* *àfá:ná-w-á=gá*
 1SG-strike=CPL NEG match-W-REF=NEG
 ‘I haven’t struck a match’
- (712) *nə-búl* *gə́* *àfá:ná-w-á=gá*
 1SG-strike NEG match-W-REF=NEG
 ‘I did not strike a match / I haven’t struck a match’ (Sabe 1995: 397, 402)
- (713) *á-dàw* *gə́* *dù-m-à* *dzilà=gá*
 3SG-sleep NEG sleep-M-REF yesterday=NEG
 ‘s/he did not sleep yesterday / s/he hasn’t slept yesterday’ (Sabe 1989: 84)

As previously mentioned, the negative clitic is always attached to the final element of the clause, even if it belongs to a phrase that is not negated:

Gwaandama

- (714) *ná=nə-wàkà* *gə́* *dzúdzú-w-á*
 PROG=1SG-wash NEG pot-W-REF
- jóró-w-á* *à-dzi-r=ú=nà=gá*
 time-W-REF 3SG-arrive-RLT=VEN=CF=NEG
 ‘I was not washing a pot, when/at the time s/he arrived’ (Sabe 1989: 89)

The position of the first negation marker, however, is crucial in changing the scope of negation. The negation marker negates the verb it follows. The following two examples illustrate this. Additionally, note that in example (716), although ‘s/he will not come to you’ is a transitive clause, only one negation marker occurs because it is already phrase-final. The function of *tà* in both examples is unclear.

Deeləmə

- (715) *ná-dàngà* *gə́* *tà* *á-zà* *mə̀=gá*
 1SG-think NEG ? 3SG-come.FUT 2SG.OBJ=NEG
 ‘I don’t think s/he will come to you’
- (716) *nə-dàngà* *tà* *á-zà=m=gá*
 1SG-think ? 3SG-come.FUT=2SG.OBJ=NEG
 ‘I think s/he will not come to you’

The negated imperfective is distinct from other negated clauses and the affirmative counterpart. First, it is introduced by the copula *há*, followed by the first negation particle. The clause may also start with a subject agreement marker preceding the copula.³⁵⁸ Second, the progressive particle *na=* precedes the verb and the subject agreement marker. Third, the verb stem is used, meaning that no FV is added. A comparison can be made

³⁵⁸ For example, in Gwaandama, some source add a pronoun beforehand (Sabe 1989: 62f. and [S-N2]), while others do not (Sabe 1995: 391ff.).

especially between the clauses (717) and (718) in Deeləmə and (721) and (722) as well as (723) and (724) in Gwaandama for their affirmative and negated counterparts.

Deeləmə

- (717) *ná-záká* *pwàlà-kà*
 1SG-like.FV beer³⁵⁹-KA.REF
 ‘I like beer’
- (718) *hà* *gá* *ná=ná-záká* *pwàlà-ká=gà*
 COP NEG PROG=1SG-like beer-KA=NEG
 ‘I don’t like beer’

Guyuma

- (719) *hà=gá* *nán=dáw-rí=gà*
 COP=NEG PROG.3SG=put-RLT=NEG
 ‘s/he is not responding’
- (720) *ĩ-a-ma* *a-yim=ama*
 1-DEM1-DEM3 3SG-die=CPL
- ha=ga* *nan=tu* *na=ga*
 COP.PST=NEG PROG.3SG=talk mouth=NEG
 ‘the one who has died wasn’t speaking’ (Newman 1976: 61)

Gwaandama

- (721) *bà-ḡá* *nì* *ḡà* *yá lá* *dzà-hùn³⁶⁰*
 3PL-eat.FV thing eat day.6 all-6
 ‘they eat food everyday’ (Sabe 1989: 59)
- (722) *bà-hà* *gá* *ná=bà-ḡà* *nì*
 3PL-COP NEG PROG=3PL-eat.FV thing
- ḡà* *yá lá* *dzà-hùn=gá³⁶¹*
 eat day.6 all-6=NEG
 ‘they do not eat food everyday’ (Sabe 1989: 63)
- (723) *ná-tsá* *tsàtsà-m-à*
 1SG-urinate.FV urine-M-REF
 ‘I urinate’ (Sabe 1995: 393)
- (724) *há* *gà* *ná=ná-tsà* *tsàtsà-m-à=gá*
 COP NEG PROG=1SG-urinate.FV urine-M=NEG
 ‘I do not urinate’ (Sabe 1995: 393)³⁶²

³⁵⁹ *Pwalaka* is a local beer.

³⁶⁰ This agreement marker may have merged with the CF marker. Cf. example (722).

³⁶¹ It is unclear why vowels of both ATR sets co-occur.

³⁶² The copula and the first negation particle have different tones in Sabe (1995: 393f.), compared to all other sources (e.g. Sabe 1989, [B-N4]), where it is *hà gá* instead of *há gà* in this example.

- (725) *hà* *gá* *nà=bà-tsim* *y-á*
 COP NEG PROG=3PL-know 1-REL
- hãr* *dùn* *gwà:ndi-y* *nè*
 COP person Gwaandama-Y and
- dùn* *dzáli-yí=nà=gā*
 person Dzalu-Y=CF=NEG
 ‘they do not know who is the Gwaandama person and who is the Dzalu person’ [B-N4]

There are some cases that remain unexplained. For instance, in example (726), the first negation slot is unoccupied despite being a transitive clause, which should therefore have two negative morphemes. In example (727), it is unclear why the copula is added at the beginning of the clause.

Gyuma

- (726) *ná-há* *ná=ná-ból* *àfàná-w=gà*
 1SG-COP PROG=1SG-strike match-W=NEG
 ‘I am not striking a match’
- (727) *hà* *nán=zé=gé* *sú-lá* *á* *Dùlmî=gé*
 COP PROG.3SG=do=NEG heart-L SPAT Hyena=NEG
 ‘s/he didn’t like Hyena’ (lit. s/he wasn’t making heart at Hyena) (B. Newman 1978: 39)

It is not surprising that Nungvrama uses ‘double negation-marking’ as it is “a special feature from a wide variety of languages all over West-Africa” (Beyer 2009: 205). Beyer (2009: 207) suggests that double negation-marking is a contact phenomenon that has spread from the Sahel zone through the Volta Basin into the rainforest zone.

It is unclear why this discrepancy exists, but it is assumed to be an error in the tone marking in Sabe (1995).

7. Clause types

7.1 General remarks

This chapter provides an overview of clauses with both verbal and non-verbal predicates (§7.2 and §7.3, respectively) and discusses the possibilities of combining two or more clauses (§7.4). Verbal clauses are distinguished into statements, commands and questions, while non-verbal clauses are divided into clauses with nominal predicates and all other non-verbal clause types. The latter express nominal, adjectival, existential, locational and possessive notions.

7.2 Simple verbal clauses

7.2.1 General remarks

A verbal clause in Nøngvørama minimally consists of a verbal predicate. The term ‘simple verbal clause’ refers to a verbal predicate with its arguments. Most languages have three types of clauses with verbal predicates: the speech acts statement, command and question, also known as declarative mood, imperative mood and interrogative mood.³⁶³ Each type has distinct phonological, morphological and syntactic properties, such as word order or intonation (König/Siemund 2007: 277, Aikhenvald 2016: 141). The following sections will introduce the three types in Nøngvørama, giving an outline of their most common grammatical and semantic features.

7.2.2 Statements

7.2.2.1 General remarks

Statements or declarative clauses are commonly used for “representative (descriptive) speech acts such as assertions, reports, acts of complaining and bragging, but also acts of predicting and promising” (König/Siemund 2007: 284). The speaker believes the statement to be true. Declaratives are the most frequently used clause type and thus usually unmarked (König/Siemund 2007: 285, Aikhenvald 2016: 143). Normally, declarative clauses are the only clause type that shows all possible TAM markers in the respective language. They tend to have a level or lowering intonation, in contrast to the tendency for a rising intonation in interrogative clauses. Additionally, they typically follow the basic word order of the language.

Dryer (2007a: 250) states that the most fundamental difference among verbal predicates is between intransitive and transitive predicates, i.e. the number of ‘core’ arguments in a clause depends on the valency of the verb. Therefore, the following subchapters are divided into intransitive clauses, transitive clauses with two and three arguments respectively, and clauses with oblique arguments. Section §6.5 included negated declarative clauses.

³⁶³ Not to be confused with mode, as described in §6.4.1.

In Nungvrama, statements adhere to the definition mentioned above. They represent typical speech acts, are unmarked and display all possible TAM markers. The intonation of a statement in Nungvrama lowers towards the end of the clause. A statement may consist solely of a verbal predicate, with the subject of the clause represented only by a subject agreement marker that prefixes the verbal predicate. The pragmatically neutral statement in Nungvrama follows the basic word order as represented in the following figure (for more information on Gvyvma, cf. Newman (1976)):

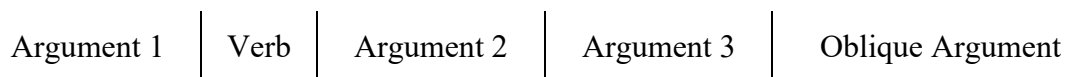


Figure 10. Basic word order

7.2.2.2 Intransitive clauses

Intransitive clauses consist of a verbal predicate with only one argument in subject position. The following examples illustrate this.

- Deeləmə**
 (728) *yír-á* *á-zà*
 woman-F.DEF 3SG-go
 ‘the woman walked’
- Gvyvma**
 (729) *níné* *ná-jín-á*
 1SG.SUBJ 1SG-be.afraid-FV
 ‘(as for me) I am afraid’
- Gwaandama**
 (730) *yínà* *à-làhà*
 3SG.SUBJ 3SG.IMP-be.tired
 ‘(as for him/her) s/he is tired’

The subject position does not need to be filled. Instead, subject agreement marking on the verbal predicate can be used to refer to the subject of the clause. Compare the following clauses with (728), (729) and (730) above.

- Deeləmə**
 (731) *á-zà*
 3SG-go
 ‘s/he walked’
- Gvyvma**
 (732) *ná-jín-á*
 1SG-be.afraid-FV
 ‘I am afraid’

Gwaandama

- (733) *à-làhà*
3SG-be.tired
's/he is tired'

In many languages, statements about weather conditions require a dummy-subject and are referred to as “zero-transitive clauses” (e.g. ‘it rained’ in English) (Givón 2001a: 117ff., Dryer 2007a: 267). In Nungurama, they are expressed as intransitive clauses, as illustrated in the following examples.

Deeləmə

- (734) *dù-w-à* *à-yá*
rain-W-REF 3SG.FUT-fall.FV
'it will rain' (lit. rain will fall)

Guyuma

- (735) *dù-w-á* *á³⁶⁴-yá*
rain-W-REF 3SG.IMP-fall.FV
'it is raining' (lit. rain falls)

Gwaandama

- (736) *dù-w* *yá=nà*
rain-W fall.FV=CF
'it is raining' (lit. rain is falling)

7.2.2.3 Transitive clauses with two arguments

Transitive clauses with two arguments consist of a subject (or subject agreement marker), a verbal predicate, followed by an object. Object pronouns can attach to the verbal predicate (example (737), cf. §3.6.3).

Deeləmə

- (737) *ná-hìntìr=ám*
1SG.IMP-teach=2SG.OBJ
'I teach you'

Guyuma

- (738) *zwí-y-é=ù* *á-wárgín* *jà-w-á=ò*
child-Y.1-REF=DEF 3SG-fry meat-W-REF=DEF
'the child fried the meat'

³⁶⁴ It can be observed that the agreement marker is inaudible in normal (non-elicited) speech. It appears to merge with the final vowel of the preceding noun. In the following Gwaandama example, no agreement marker is present either. However, it cannot have merged with a preceding vowel. It also differs from Guyuma and Deeləmə in that it exhibits the CF marker.

Gwaandama

- (739) *nə-mwàb* *tswá-w-á*
 1SG-build house-W-REF
 ‘I built a house’

In Nvngvrama, some semantically intransitive clauses require a cognate object. In terms of aktionsart, these verbs are atelic verbs, i.e. they describe processes without a specific endpoint. However, not all atelic verbs require a cognate object. When they do, the cognate objects are often “nominalized forms of the verb, or at least of its implicit sense” (Givón 2001a: 132), which “is often that of an intransitive event” (Givón 2001a: 132). Höche (2009: 31) states that a cognate verb “could be considered a ‘true’ argument, realizing the semantic function of Goal” in a functional approach after Dik. Cognate objects are attested in the data with the following verbs: ‘to sleep’, ‘to cough’, ‘to talk’, ‘to sing’, ‘to dance’, ‘to wash’, ‘to fall’ and ‘to play’. Compared to the examples above, the examples below demonstrate no morphosyntactic differences.

Deeləmə

- (740) *à-wál* *wáhá-l-à*
 3SG-cough cough-L-REF
 ‘s/he coughed’

- (741) *nə-dáw* *dù-m-é*
 1SG-sleep sleep-M-REF
 ‘I slept’

Gvyoma

- (742) *Ø-dàw-á* *dù-m-á*
 3SG-sleep-FV.NPST sleep-M-REF
 ‘s/he will sleep’

- (743) *á-tú* *nà-à*
 3SG-say mouth-A.REF
 ‘s/he talked’

- (744) *dí* *kà-swa* *ma-m-a* *sĩ-kə-ye*
 then 2PL-wash water-M-REF river-KA-PP.inside
 ‘then you washed yourselves in the river’ (Newman 1976: 45)

Gwaandama

- (745) *nə-wàkà* *dwà-m-à*
 1SG-wash water-M-REF
 ‘I washed myself / I took a bath’ (lit. I washed water)

- (746) *bə-yú* *sə-ə*
 3PL-sing song-A.REF
 ‘they sang [a song]’ [B-N4]

- (747) *nà-tù* *tù-á*
 1SG-talk talk-A.REF
 ‘I talked’ (Sabe 1995: 182)

A transitive clause is typically also used to expressed reflexivity in Nungvrama. The reflexive marker takes the syntactical position of an object, referring to the same referent as the subject (Schladt 2000: 103, cf. Schachter/Shopen 2007: 26). There are various kinds of reflexive markers that can occur in a language in such constructions (cf. Schladt 2000: 105f. for details). In Nungvrama, the reflexive marker in Nungvrama is not a distinct marker but an object noun phrase that includes a possessive pronoun and one of two nouns (‘body’ or ‘head’).³⁶⁵ According to Givón (2001b: 106),

such constructions [i.e. with possessive reflexives] tend to be semantically much more transitive than ‘true’ reflexives. And since the object NP is neither pronominalized nor deleted, possessive-reflexives of semantically transitive verbs tend to be also syntactically more transitive, as compared to ‘true’ reflexives.

The examples below exemplify reflexive constructions in Nungvrama.

Deeləmə

- (748) *mà-ǰká* *má-l* *lá-mò*
 2SG-wash body-L.5 5-2SG.POSS
 ‘you washed yourself’ (lit. you washed your body)
- (749) *zwá-y-á* *à-dù* *ǰákù-l* *lá-yè*
 child-Y.1-REF.DEF 1-see head-L.5 5-3SG.POSS
 ‘the child saw himself/herself’ (the child saw his/her head)

Gvyvma

- (750) *à-wàká* *mí-l* *yì-lè*
 3SG-wash body-L.5 3SG.POSS-5
 ‘s/he washes himself/herself’ (lit. s/he washes his/her body)
- (751) *ǰì-r-é=ù* *á=zîr* *mí-l / dú-l* *yì-lè*
 man-R.1-REF=DEF 1=hate body-L.5/head-L.5 3SG.POSS-5
 ‘the man hates himself’ (lit. the man hates his body/head)

Gwaandama

- (752) *à-wàká* *mà-l* *yù*³⁶⁶
 3SG-wash body-L 3SG.POSS
 ‘s/he washes himself/herself’ (lit. s/he washes his/her body) [S-N2]

³⁶⁵ Compare Tula, where the noun ‘body’ together with a possessive pronoun can have both reflexive and reciprocal meaning (Hall 1954/1956: 154). In Nungvrama, reciprocity is expressed with the pluractional verb extension *-nA* (cf. §3.3.3.2).

³⁶⁶ No agreement marker is reported here.

- (753) *nə-dv̀nə* *mí-l / kà-wà* *ɲú*³⁶⁷
 1SG-look body-L / face-W 1SG.POSS
 ‘I look at myself’ (lit. I look at my body/face)

In Nvngvrama, no passive constructions occur. Instead, two other strategies are employed, both of which include two arguments. The first strategy is only found in the Gwaandama data. It resembles a passive construction in that the object becomes the subject of the clause. However, unlike in a passive clause, another nominal element, namely the lexeme for ‘body’, is added. As such, it resembles a reflexivity construction in Nvngvrama, as described above. However, it does not include a possessive pronoun (§7.2.2.3, cf. Sabe 1995: 158, Givón 2001a: 21, cf. Kastenholz 2018 for passive and reflexivity in another ‘Adamawa’ language).

Gwaandama

- (754) *kwáháná-w-á* *dzà:m-ə* *mə-l-ə*
 work-W-REF do.CPL-FV body-L-REF
 ‘the work has been done’ (lit. The work has done itself) (Sabe 1995: 158)
- (755) *kwàr-ká* *fàmà* *mə-l-ə*
 medicine-KA find.CPL body-L-REF
 ‘the medicine has been found’ (lit. the medicine found itself) (Sabe 1995: 253)
- (756) *á* *kútár* *yà* *á-mà* *dzi*
 but again place.A6 6-DEM3 do
- gə* *mə-l* *nə* *mĩr* *bṽ=gá*
 NEG body-L with 1PL.INCL.SBJ 3PL.SBJ=NEG
 ‘but again that place/action was not done with us and them’ [B-N1]
- (757) *ná* *bə-sikìn=gá*
 if 3PL-change=NEG
- kwàntsá-tá* *á-dzi-n* *mə-l* *wí*
 chieftaincy-TA 3SG-do-PLU body-L INT
 ‘if they [the white men] didn’t change [anything], would the chieftaincy have come to exist?’ [B-N1]

The second, more common and preferred strategy to express something similar to a passive is to fill the subject position with an impersonal third person plural. The pronoun functions as the agent of the clause, often only represented by the subject agreement marker (cf. Givón 2001a: 22). The object can be focused by placing it clause-initially (compare example (759) with example (758)).

³⁶⁷ The agreement marker is omitted in fast speech.

Deeləmə

- (758) *bà-háb* *gú-y-ə*
 3PL-arrest thief-Y-REF
 ‘the thief was arrested’ (lit. they arrested the thief)

- (759) *gú-y-ə* *bà-háb* *yá*
 thief-Y-REF 3PL-arrest 3SG.OBJ
 ‘the thief was arrested’ (lit. the thief, they arrested him)

Guyuma

- (760) *bà-mwə̀m* *múngú-rù-l* *jómà-là=̀v*
 3PL-eat mango-L.5 sour-5=DEF
 ‘the sour mango was eaten’ (lit. they ate the sour mango)

Gwaandama

- (761) *bà-dáw-r=i* *kwàn-y-a* *nè* *gànà-má=̀v*
 3PL-put-RLT=3SG.OBJ owner-Y-REF with meeting-M=DEF
 ‘she was made hostess’ (lit. they made her owner of the meeting) (Hiraki 1986: 84)

- (762) *bà-nálgí* *jímá-w-á=̀v*
 3PL-sharpen knife-W-REF=DEF
 ‘the knife was sharpened’ (lit. they sharpened the knife)

7.2.2.4 Transitive clauses with three arguments

Transitive clauses with three arguments, also known as ‘ditransitive clauses’, have two objects or “at least two nonsubject arguments” (Dryer 2007a: 253). They are often referred to as direct and indirect object. However, Dryer (2007a: 253f., cf. 255) claims that “these labels carry grammatical implications that may not be appropriate for all languages” and proposes to use the terms ‘recipient-like argument’ (R) and ‘theme argument’ (T).

In Nvngvrama, both R and T follow the verbal predicate as is illustrated in the examples below.

Deeləmə

- (763) *bá-zìr=i=wá* *ǰə-`ə*
 3PL-bring=3SG.OBJ=VEN food-A.REF
 ‘[s/he sat and wept that] they (would) bring him/her food’

Guyuma

- (764) *ná-níngá* *zwí-y-é=̀ù* *gwàrcù-w-è*
 1SG-give.FV child-Y-REF=DEF fright-W-REF
 ‘I give the child a fright’

Gwaandama

- (765) *à-ní* *làkì-w-à*
3SG-give.3SG.OBJ hoe-W-REF
's/he gave him/her a hoe' [S-N2]

The order of R and T can be changed, as the examples below illustrate. Although Sabe (1995: 188) claims that “[t]he two patterns have equal frequency in application”, i.e. that there is no preferred ordering, in the data used for this thesis, the animate argument, i.e. R, is typically closer to the verb. This is always the case if the clause contains an object pronoun, since object pronouns always refer to animate nouns and show verbal attraction (see example (765) above, cf. §3.6.3). However, no pragmatic difference is reported or given in the translations when the order of R and T is swapped.

Deeləmə

- (766) *nə-já* *Músa* *tákádà-w-à*
1SG.FUT-give.FV Musa book-W-REF
'I will give Musa the book'

- (767) *nə-já* *tákádà-w-à* *Músa*
1SG.FUT-give.FV book-W-REF Musa
'I will give the book to Musa'

Gyuma

- (768) *ń-ńingá* *Músa* *tákádá-w-á=ṽ*
1SG.FUT-give.FV Musa book-W-REF=DEF
'I will give Musa the book'

- (769) *ń-ńingá* *tákádá-w-á=ṽ* *Músa*
1SG.FUT-give.FV book-W-REF=DEF Musa
'I will give the book to Musa'

Gwaandama

- (770) *á-ńwá* *Habu* *kèké-w-á*
3SG-buy Habu bicycle-W-REF
's/he bought Habu a bicycle' (Sabe 1995: 188)

- (771) *á-ńwá* *kèké-w-á* *Habu*
3SG-buy bicycle-W-REF Habu
's/he bought a bicycle for Habu' (Sabe 1995: 188)

7.2.2.5 Pro-drop in transitive clauses

In transitive clauses, two or three arguments occur, as described in the previous two subchapters. An argument is a noun or noun phrase that can be represented by a subject or object pronoun. However, in Nungurama, object pronouns exclusively refer to animate entities, which means conversely that inanimate entities cannot be represented by an object pronoun. If objects are not depicted as a noun or noun phrase, they must be inferred from the context as in such cases they do not have an overt, i.e. phonological,

representation of the object in Nvngvrama. This phenomenon is called pro-drop. According to Müller (2006: 93), “the pro-drop phenomenon does not involve post-syntactic deletion [...], but an empty category *pro*”. Pro-drop languages are often associated with morphological richness, especially in terms of verbal agreement (cf. Müller 2006 for a detailed discussion).

The clauses below demonstrate the use of pro-drop in Nvngvrama. In the English translations, the object pronouns enclosed in square brackets represent inanimate objects that have no overt representation in the Nvngvrama clause.

- Deelomə**
- (772) *ĩ-kúwə̀* *sír-l-á* *á* *góra-kà*
 3SG-pour honey-L-REF SPAT plate-KA
- ĩ -yál* *ĩ-zé*
 3SG-take 3SG-go
- ĩ -fǎr* *bǎ-l-à*
 3SG-give leopard-L-REF
- ‘he [the hare] poured the honey into a plate, he took [it], he went, he gave [it] to the leopard’

- Gvyuma**
- (773) *bǎ-l-á=ò* *á-kù* *má-m* *sír-má=ò*
 leopard-L-REF=DEF 3SG-pour water-M.9 bee-9=DEF
- á* *kwáró-yó=ò* *á-nímté*
 SPAT calabash-in=DEF 3SG-taste
- ‘the leopard poured the honey into a calabash, tasted [it] (and...)’

- Gwaandama**
- (774) *á* *Piságìn* *dzi*
 and Pisagin go
- dzi-r=ú* *bwá-l-á* *lá-mà=nà*
 go-RLT=VEN salt-L.5-REF 5-DEM3=CF
- á* *nán-dzí* *tàsà-w-à*
 and PROG.3SG-go dish-W-REF
- nán-dzí* *nán-nó* *kwàntsá* *Dzàlv-y-à*
 PROG.3SG-go PROG.3SG-give chief.Y Dillə-Y-REF
- ‘and Pisagin [went and] brought that salt, and he was taking the dish, he was going, he was giving [it] to the chief of Dzalu’ [B-N4]

- (775) *dáw=gá*
 keep=NEG
 ‘don’t keep [it]!’

7.2.2.6 Clauses with oblique arguments

Oblique arguments, as opposed to core arguments are optional parts of a clause, i.e. they are not required by the argument structure of the verbal predicate. They can be nominal phrases or adjuncts (Andrews 2007b: 157, 222).

In Nɔ̀ngvɔ̀rama, noun phrases in oblique position express the benefactive. They do not differ morphosyntactically from other arguments. They are unmarked, follow the verbal predicate and can occur before or after another argument. The only difference between oblique arguments and other arguments is that the former can be omitted. In the following examples, the oblique arguments are highlighted in bold.

Deelɔ̀mɔ̀

- (776) *ná-súnà* *mwári-y* *yá-nì*
 1SG-farm older.brother-Y.1 1-1SG.POSS
 ‘I farmed for my older brother’

Gvɔ̀vɔ̀ma

- (777) *mwá-y-á=ò* *á-wúr* *sún* *zwí-y* *yé-yè*
 woman-Y-REF=DEF 3SG-cook food child-Y.1 1SG.POSS-1
 ‘the woman cooked food for her child’
- (778) *zwí-y-é=ù* *à-wàrgín* *bá* *jà-w-á=ò*
 boy-Y.REF=DEF 3SG-fry 3PL.OBJ meat-W-REF=DEF
 ‘the boy fries the meat for them/everyone’

Gwaandama

- (779) *ná-dáw=ám* *nì* *dà*
 1SG-keep=2SG.OBJ thing eat
 ‘I kept food for you’
- (780) *ná-mwàb* *tswá-w-á* *gíhí-y* *nú*
 1SG-build house-W-REF woman-Y 1SG.POSS
 ‘I built a house for my wife’

Typically, adjuncts in Nɔ̀ngvɔ̀rama are adverbs or adpositional phrases and follow the predicate and all arguments, generally occurring at the end of a clause. Adjuncts can be added as required to indicate location, time or manner (cf. Newman 1976: 52). While theoretically there is no limit to the number of adjuncts that can occur in a clause, Newman (1976: 52) notes that Nɔ̀ngvɔ̀rama clauses are typically short and usually “contain[...] no more than two secondary constituents”. Examples of adjuncts are marked in bold in the following clauses. For additional examples, cf. §3.4.2.

Deelɔ̀mɔ̀

- (781) *nà-fwá* *á* *téli-yè*
 1SG.FUT-sit.FV SPAT room-PP.inside
 ‘I will sit in the room’

- (782) *nà-zá* *zí-kà*
 1SG-go town-KA.REF
 ‘I will go to town’

Gvɔvɔma

- (783) *ná-sùni* *yà-à* *sísí*
 1SG-farm place-A cold
 ‘I farmed in the morning’ (lit. I farmed in the cold place)

Gwaandama

- (784) *ná-ḡà* *nà-w-à* *dzilá*
 1SG-eat meat-W-REF yesterday
 ‘I ate meat yesterday’ (Hiraki 1986: 59)

7.2.3 Commands

Commands can have various meanings, including orders, requests, advice, invitations, permissions and good wishes. They can also be categorised by mood, such as ‘distance in space’, ‘politeness’ or ‘strength of command’. In some languages, different formal means are used to express these categories, resulting in different clause types. In other languages, as in Nvngvɔrama, all of these concepts are expressed using a single imperative form; its exact meaning then needs to be understood in context (Aikhenvald 2016: 144, 147).

Commands make use of a restricted set of verbs in comparison to declarative clauses, most of them being active verbs (cf. Aikhenvald 2016: 144ff.). In some languages, a separate paradigm for commands does not exist, and another verbal category is used instead. According to Aikhenvald (2016: 146), “a present or a future form of the verb or a potential modality can be used as a command”. In Nvngvɔrama, it is simply the verb stem that is employed. Cross-linguistically, the imperative addressed to a second person “tends to be the least formally marked” (Aikhenvald 2016: 145, cf. König/Siemund 2007: 303f.). This is also the case in Nvngvɔrama: if the command is directed at a single person, no personal pronoun (or agreement marker referring to a subject) is present. In the plural, the respective plural agreement marker appears before the verb. Newman and Newman (1974: 111) assert that “there is a high-low glide on the final syllable which is also marked by stress and length”. Although the rest of the data does not support the lengthening of the vowel, the lowering of pitch is evident in all three varieties.

To summarise, commands in Nvngvɔrama consist only of the basic verb form when referring to the second person singular and the basic verb form preceded by a subject agreement marker if referring to any other person. Additionally, a lowering of pitch on the last syllable of the imperative (whether it is the verb or an argument following it) is evident. Commands have a broad range of meanings and can thus be described as polysemous.

The examples below demonstrate how to address one or multiple individuals using commands in Nungurama. Exclamation marks in the English translations indicate imperative clauses.

Deeləmə

- (785) *fú* *ɲóm-à*
cut meat-W.REF
‘cut meat (right now)!’
- (786) *ká-yárgínà*
1PL.EXCL-hurry
‘we should hurry! / let’s walk fast!’
- (787) *zù=wá* *fɹwà* *tó*
go=VEN sit speak
‘come, sit [and] speak!’

Guyuma

- (788) *kà-cúm* *ɲǎ-w-à*
1PL/2PL-cut meat-W-REF
‘let’s cut meat! / you (pl) cut meat!’
- (789) *zù* *cúm* *ɲǎ-w-à*
go.VEN cut meat-W-REF
‘come [and] cut meat!’

Gwaandama

- (790) *ɲímá-w-á* *wí-bì* *há* *filé* *ɲálgì*
knife-W.3-REF 3-DEM1 COP small sharpen
‘this is a small knife, sharpen it!’
- (791) *d̀̀nì=bà*
look=3PL.OBJ
‘look at them!’
- (792) *dzà=ù³⁶⁸* *ɲá*
go=VEN here
‘come here!’ (Sabe 1995: 259)

For negated commands, also called prohibitive, the negative particle for intransitive or the particles for transitive clauses (cf. §6.5) are added.

Deeləmə

- (793) *tú=gà*
say=NEG
‘don’t say anything!’

³⁶⁸ The low tone of the ventive is an exception for which there is no explanation currently, as it normally depicts a high tone.

(794) *níngí* *gǎ* *tángá-w-à=gà*
 give.3SG.OBJ NEG pot-W-REF=NEG
 ‘don’t give him/her the pot!’

(795) *kà-zá* *gǎ* *fwá=gà*
 1PL.INCL-go NEG house =NEG
 ‘let’s not go home!’

Gvyvma

(796) *móm-dir=gà*
 mention-RLT=NEG
 ‘don’t mention it!’

(797) *zə=ge*
 do=NEG
 ‘don’t do it!’ (Newman 1976: 58)

(798) *kur=ge* *zi-ka-ya=v=ga*³⁶⁹
 return=NEG town-KA-in=DEF=NEG
 ‘[then Jesus said to him:] don’t return into the village!’ (Mk 8, 26) (Longuda Bible Translation Society 1978: 120)

Gwaandama

(799) *wàkà=gá*
 wash=NEG
 ‘don’t wash!’ [S-N1]

(800) *dàw* *gǎ* *dù-m-à=gá*
 sleep NEG sleep-M-REF=NEG
 ‘don’t sleep!’ [S-N1]

(801) *ní* *gǎ* *làkì-w-à=gá*
 give.3SG.OBJ NEG hoe-W-REF=NEG
 ‘don’t give him a hoe!’ [S-N1]

Newman and Newman (1977b: 6) report stress on the negative particle when following an imperative:

Gvyvma

(802) *tàm=’gá*³⁷⁰
 cry=NEG
 ‘don’t cry!’ (Newman/Newman 1977b: 6)

³⁶⁹ The NF class suffix, the adpositional clitic as well as the definite marker and the negation marker all take the ATR feature of the preceding noun root. However, in the source, it is depicted as *zi-ki-ye=u=ge*, probably due to the process of vowel weakening in certain contexts (see §2.3.5) as well as a lack of differentiation of ATR vowels in the orthography used in the Bible translation.

³⁷⁰ The negative clitic typically carries a low tone. It is possible that the stress on the syllable raises its pitch, leading Newman and Newman to interpret it as having a high tone.

7.2.4 Questions

7.2.4.1 General remarks

Cross-linguistically, there are at least two types of questions: content questions and polar questions. Content questions request information from the listener, for example ‘where/when/how/why did you go on holiday?’. Polar questions, on the other hand, seek for “confirmation or disagreement” (Aikhenvald 2016: 150), such as ‘did you go on holiday?’. Additionally, languages may have tag questions and rhetorical questions (König/Siemund 2007: 283, 290ff., Aikhenvald 2016: 150ff., Romero 2020). Tag questions expect a positive or negative answer, while rhetorical questions do not expect an answer at all. They are “statements expressed by an interrogative sentence” (König/Siemund 2007: 283). These question types can be marked in various ways cross-linguistically, including through phonological, morphological, syntactic and intonational means.

In Nvngvrama, content questions are formed in various ways and are thus described in different chapters (cf. §3.6.6, §4.4.8 and below). Polar questions and tag questions are marked similarly with invariable particles at the end of a phrase and are discussed together in §7.2.4.3. Rhetorical questions are negated declarative clauses described briefly in §7.2.4.4.

7.2.4.2 Content questions

Content questions are also called ‘constituent interrogatives’ or ‘information questions’ (König/Siemund 2007: 291). They seek to obtain specific information and are formed using question words such as *when*, *where*, *who*, *why* and *how*.

The question words for all three Nvngvrama varieties are illustrated in two separate chapters (§3.6.6 and §4.4.8), as they differ from each other. Some are proforms that agree with the head noun, while others are invariable, i.e. they are uninflected free forms. The chapter on noun agreement in §4.4.8 discusses content questions with those question words that agree with the head noun (i.e. ‘which’, ‘how many/much’ and ‘whose’). Content questions with all other question words will be introduced below. They are ‘who’ and ‘what’, which occur instead of the constituent they inquire about, as well as those with an adverbial function asking about “(i) the location of a situation (*where*), (ii) its temporal setting (*when*), (iii) the manner of carrying it through (*how*), and (iv) the reason for it (*why*)” (König/Siemund 2007: 302).

The invariable interrogative particles that occur in content questions have in common that they occur in-situ, i.e. in place of the constituent that they replace or that is being asked about. However, they can also be clefted, i.e. the question word appears clause-initially (cf. König/Siemund 2007: 301). Whenever they are not clause-final, the clause final marker =*nÁ* must occur.

who?

The interrogative particle for ‘who’ is *wà* in all three varieties. In Gwaandama, variations such as *wà/wì* occur (cf. (810)). This particle seeks information about the human subject or object of a clause and occurs in the place of the subject or object.

Deeloma

- (803) *wà-yí* *à-wàhà* *fil* *wí-bá=nà*
who-Y 3SG-break calabash.3 3-DEM1=CF
‘who is s/he who broke this calabash?’
- (804) *kà-zá* *Ábùjà* *jì* *kí* *wà*
2PL-go.FV Abuja 2PL.SBJ COORD who
‘with whom are you going to go to Abuja?’
- (805) *jì* *kí* *wà* *kà-zá* *Ábùjà=nà*
2PL.SBJ COORD who 2PL-go.FV Abuja=CF
‘with whom are you going to go to Abuja?’

Gyuma

- (806) *mìná* *wà*
2SG.SBJ who
‘who are you?’
- (807) *wà* *íy-á* *kárn=im=nì*
who 1-DEM1 insult=2SG.OBJ=CF
‘who (is that one who) insulted you?’
- (808) *na-zwě* *wà*
2SG-ask.FV who
‘whom are you asking?’ (Newman 1976: 56)

- (809) *bà-àr=ám* *bí* *wà*
3PL-call=FV.2SG.OBJ COMPL who
‘what’s your name?’ (lit. they call you who) (Newman/Newman 1977b: 24)

Gwaandama

- (810) *gwámánù*³⁷¹ *nà-dàngá=nà* *yìna* *wà*
group 2SG-think=CF 3SG.SBJ who

nà *wà* *nà* *wì*
and who and who
‘who and who and who do you think are the groups?’ [B-N1]
- (811) *wà* *yè=wá* *dù-w-à* *á* *jà=nà*
who bring.out=VEN rain-W-REF SPAT here=CF
‘who brings out the rain here?’ [B-N1]

³⁷¹ In [B-N1] *gwám ’ánù*, elsewhere *gwámá*, both are translated as ‘groups’.

what?

The interrogative word ‘what’ is similar in the three varieties: *bánà* in Deeləmə, *bà/bì* in Gvyuma and *bà(áni)* in Gwaandama. The short form of the latter is used clause-final, the long form elsewhere. The particle is employed to inquire about the object of the clause and takes its place or is moved to the rightmost position of the clause (compare e.g. examples (812) and (813)).

Deeləmə

- (812) *bánà* *mà-já=nà*
what 2SG-eat.FV=CF
‘what are you eating?’

- (813) *mà-já* *bánà*
2SG-eat.FV what
‘what are you eating?’

Gvyuma

- (814) *bì* *á-zě=nì*
what 3SG-do.FV=CF
‘what is he doing?’

- (815) *á-zě* *bà*
3SG-do.FV what
‘what is he doing?’

- (816) *ba* *a-zě* *yin³⁷²=nà*
what 3SG-do.FV 3SG.OBJ=CF
‘what is he doing to him?’ (Newman 1976: 56)

- (817) *ba-ar-ã* *bə* *ba*
3PL-call-FV.NPST COMPL what
‘what do they call it?’ (Newman 1976: 56)

Gwaandama

- (818) *dzídzír-á* *bà.áni* *á-dzú-r³⁷³=nà*
shoe-A what 3SG-wear-RLT=CF
‘what shoes did s/he wear?’ (Hiraki 1986: 132)

- (819) *bǎhóyá-y-á* *ǎá* *dzi-ká* *rì*
Bǎhoya-Y-REF eat.FV snake-KA if
- bà.áni* *dzi-á=i=nà*
what happen-FV=3SG.OBJ=CF
‘if a Bǎhoya eats a snake, what happens to him/her?’ [B-N1]

³⁷² The 3SG object pronoun is *yà*. Here, it is probably assimilated to the following morpheme.

³⁷³ The relational verb extension in Gwaandama is generally not shortened (cf. §3.3.3.3). This example is an exception in the data.

- (820) *á* *yì-b-ə* *nà=bə-dà* *bà*
 and person-B-REF PROG=3PL-eat what
 ‘and what were the people eating?’ [B-N4]

where?

The interrogative particle for ‘where’ is *yà* in the three varieties and is probably derived from the noun *ya-a* ‘place’ (with differing tones in the varieties). In Gwaandama, it often surfaces as *yî* or *yí*. It stands in place of the location that is being asked about.

Deeləmə

- (821) *sí-há* *bá-hà* *yà*
 fly-HA.DEF 3PL-COP where
 ‘where are the flies?’
- (822) *nə-fá* *nə-mú-tír-í* *mú-w-á* *yà*
 1SG.FUT-find.FV 1SG-pile.up-RLT-3SG.OBJ? pile-W-REF.DEF where
 ‘where can I get more of it?’

Guyuma

- (823) *nà-zá* *yà*
 2SG-go.FV where
 ‘where are you going?’
- (824) *a-war=ɪ=wa* *ya*
 3SG-marry=3SG.OBJ=VEN where
 ‘where did he marry her?’ (Newman 1976: 57)

Gwaandama

- (825) *kà-wù-nǎ* *Gimsá* *kà-dzi* *ya*
 1PL.INCL-stand.up-PLU Gimsa 1PL.INCL-go where
 ‘where did we go from Gimsa?’ [B-N1]
- (826) *nà=bə-fv=wà* *yî*
 PROG=3PL-dig=VEN where
 ‘[We use iron to make hoes, axes and arrows] Where were they digging it [the iron] from?’ [B-N1]
- (827) *á-dzàmà* *yí*
 3SG-go.CPL where
 ‘where has s/he gone?’ (Sabe 1995: 208)

when?

The interrogative particle ‘when’ asks about the temporal setting of a situation and is used in place of a time adverbial at the end of a clause or is clefted to the beginning of the

clause. Gyyuma exhibits two similar particles: *indibá* and *indina*³⁷⁴. No examples of this particle were found in the Gwaandama data.

Deeləmə

- (828) *má-zá=mó* *indibá*
 2SG.FUT-go.FV=VEN when
 ‘when will you come?’
- (829) *indibá* *má-zír-á=mó* *bál-kà=nà*
 when 2SG.FUT-bring-FV=VEN stick-KA=CF
 ‘when are you going to bring the stick?’

Gyyuma

- (830) *bə-ɲwa* *ɲin* *indibá*³⁷⁵
 3PL.FUT-pay.FV 2PL.OBJ when
 ‘when will they pay you?’ (Newman 1976: 57)
- (831) *indibá* *kà-zó* *yá-á* *nínà=nà*
 when 2PL-go.VEN place-A here=CF
 ‘when did you come here?’
- (832) *kə-yiwǎ* *jalab* *indina* *da*
 2SG-COP.FUT clever when INT?
 ‘when will you become clever?’ (Ps 94, 8) (Wycliffe Bible Translators n.d.)
- (833) *ba-zwe=ĩ* *bə* *indina* *da*
 3PL-ask=3SG.OBJ.NPST COMPL when INT?
 ‘they ask (him/her): when?’ (Lk 21, 7) (Wycliffe Bible Translators n.d.)

how?

There is not enough data to give a conclusive description of the interrogative particle ‘how’ and its use in a clause. For the sake of completeness, the few examples that occur in the data are presented here. The question particle appears to be *ana* in Deeləmə and *ání* in Gyyuma. In Gyyuma and Gwaandama, *indimana/inemenii* and *indəmāni*³⁷⁶, respectively, also occur.

Deeləmə

- (834) *ána* *mə=nà*
 how 2SG.SBJ=CF
 ‘how are you? (talking to someone of the same age or younger)’

³⁷⁴ In Newman (1976: 57), there is one example in which *indina* is translated as ‘why’.

³⁷⁵ Actually *ndibá*, but cf. Newman/Newman 1977b: 12. In my own recordings, a short (fleeting) vowel occurs.

³⁷⁶ In the sources they are given as *zəndəmana/zinemenii* and *dzindəmāni*. According to Newman (1976: 57), “*zəndəmana* ‘in what name’ may be considered a fused clause”. However, *zə* and *dzə* mean ‘do’ in Gyyuma and Gwaandama, respectively, and are indicated as such in the examples.

- (835) *áná* *yá-à* *sísá-w-à=nà*
 how place-A cold-W-REF=CF
 ‘how is the weather?’ (lit. how is the place of coldness?)

Guyuma

- (836) *ání* *mwa-y-a* *dei=ni*
 how woman-Y-REF ?³⁷⁷=CF
 ‘how is the wife?’

- (837) *di* *a-b* *ba-ku* *nam-ha=v*
 then some-B 3PL-kill animal-HA=DEF

ba-zə *indemana*
 3PL-do how
 ‘then how do they kill the animals?’ (Newman 1976: 57)

- (838) *kà-zə* *indimana* *də* *kà-wa-tir=ĩ=na*
 2PL-do how then 2PL-marry-RLT=3SG.OBJ=CF
 ‘how do you go about marrying her?’ (Newman 1976: 57)

- (839) *zə* *inemeni* *faitan* *swam-dir-ã* *faitan=ni*
 do how Satan cast.out-RLT-FV Satan=CF
 ‘how can Satan cast out Satan?’ (Mk 3, 23) (Longuda Bible Translation Society 1978: 103)/(Wycliffe Bible Translators n.d.)

Gwaandama

- (840) *ar* *bə* *yə*
 ask COMPL 3SG.OBJ

dzə *indəmāni* *yika*
 do how then

sĩ-w-a *tsə-r-ə* *tsətsə-m-ə=nə*
 dog-W-REF urinate-RLT-FV urine-M-REF=CF
 ‘s/he asked him: “how can I get the urine out of the dog?”’ (Sabe 2014: 51)

why?

Although there are few examples with the interrogative particle ‘why’, it can be said that there are different ways to express the question ‘why’, similar to the question ‘how’. In Deeləmə and Guyuma, the question word is *bàzì*. In Gwaandama, the term *hàbìbí* is attested in several examples, although Sabe (1995: 186, 2014: 29, 31) lists *imbìì*, but does not provide any examples.

³⁷⁷ It resembles the interrogative tags *déy* and *déy* in Deeləmə and Gwaandama, respectively. However, it is found in a clause with an interrogative particle, which semantically excludes the tag. Cf. examples (832) and (833).

Deeləmə

- (841) *bàzi má-jīb-r-ə zwá-y-á=nà*
 why 2SG-beat-REL-FV child-Y-REF=CF
 ‘why are you beating the child?’

- (842) *bàzi mǎ-zí-r=wá=gà=nà*
 why 2SG-go-RLT=VEN=NEG=CF
 ‘why didn’t you bring it?’

Guyoma

- (843) *Ayu bi bazi=ni*
 Rabbit COMPL why=CF
 ‘Rabbit asked: why?’ (Anonymous 1975: 15)

Gwaandama

- (844) *hàbibi mǎ-kùrū=nà*
 why 2SG-return=CF
 ‘why did you return?’ [B-N1]

- (845) *hàbibi mǎ-hàw-ri³⁷⁸ dzé kwáháná-w-á mǎ=nà*
 why 2SG-stop-RLT do.FV work-W-REF 2SG.OBJ=CF
 ‘why have you stopped doing your work?’ (Sabe 1995: 186)

- (846) *hàbibi yúná mǎ-[†]tsá-r-á dzáǎ-l-á=nà*
 why ? 2SG-run-RLT-FV name-L-REF=CF
 ‘why is it that you don’t want to mention the name?’ (lit. why do you run from the name?) [B-N4]

In Guyoma, there are two additional question words for ‘why’: *zindìbìbà* and *zindìbìbii*³⁷⁹. They may consist of the verb ‘do’ and question words similar to ‘when’. However, they do not show subject agreement marking, suggesting that they are fixed expressions. This is reflected in the interlinearisation of the following examples.

Guyoma

- (847) *nà-níngí zindìbìbà*
 2SG-give.3SG.OBJ why
 ‘why did you give it to him/her?’

- (848) *zindìbìbà nà-níngá-r=i=nà*
 why 2SG-give-REL=3SG.OBJ=CF
 ‘why did you give it to him/her?’

³⁷⁸ This clause contains the only instance of a low tone on the relational verb extension. No explanation can be provided at present.

³⁷⁹ The notation is preserved as it appears in the sources, i.e. it is not adapted to the orthography used in this thesis, as the origin of the terms has not yet been conclusively clarified.

- (849) *zindibibii* *ka-kasi-r-ã* *ni=ne*
 why 2PL-search-RLT-FV.NPST 1SG.OBJ=CF
 ‘why did you look for me?’³⁸⁰ (Lk 2, 49) (Longuda Bible Translation Society 1978: 167)/(Wycliffe Bible Translators n.d.)

7.2.4.3 Polar and tag questions

Polar questions do not seek new information but ask whether a certain statement is true or false. They can typically be answered with an affirmative or negative lexeme, such as ‘yes’ or ‘no’, although answers such as ‘maybe’ or ‘possibly’ can also be used. The most common way of expressing such questions is to use an intonation pattern that differs from that of a statement and to add a question particle (König/Siemund 2007: 291f., Köhler 2015/2016: 347ff., 447, Aikhenvald 2016: 150). This is also applicable to Nungvrama. All three varieties of Nungvrama have a clause-final interrogative particle, which is *wá* in Deeləmə and *wí* in Gvyvma and Gwaandama. In addition, the clause intonation rises slightly throughout the clause, while it falls on the last syllable.³⁸¹

Deeləmə

- (850) *mà-dv* *yír-á* *wá*
 2SG-see woman-F.DEF INT
 ‘have you seen the woman?’

Gvyvma

- (851) *ná-wúmè* *dási-ká=è* *wí*
 2SG-open door-KA=DEF INT
 ‘did you open the door?’

- (852) *nà-hà* *ñ* *dèk* *wí*
 2SG-COP INST? thus INT
 ‘are you thus?’ (Newman/Newman 1977b: 25)

Gwaandama

- (853) *mà-yirà* *yí-m-á* *birà-má=è* *wí*
 2SG-want.FV milk-M.9-REF plenty-9=DEF INT
 ‘do you want plenty of milk?’ [S-N1]

- (854) *nán=àr=im* *wí*
 PROG.3SG=call=2SG.OBJ INT
 ‘was s/he calling you?’ (Sabe 1995: 153)

Besides particles used in polar questions, Gwaandama and possibly Deeləmə exhibit interrogative tags, as described by König and Siemund (2007: 296f.) and Romero (2020: 245ff.). Interrogative tags “contribute a certain bias by raising expectations toward either

³⁸⁰ Although this clause has been translated with a past reference, it is marked with FV (occurring only in the imperfective and future) and nasalisation, which refers to non-past.

³⁸¹ The combination of a high tone and falling intonation is described as a falling (contour) tone by Newman/Newman (1974: 110, cf. Newman 1976: 56).

a positive or a negative answer” (König/Siemund 2007: 296). There are no occurrences of interrogative tags in the Gvyyuma data (with one possible exception, see below). Polar questions and tag questions are described together in this chapter because they are formally similar. Both keep their basic word order and add an invariable particle at the end of the clause.

An interrogative tag infrequently found in the Deeləmə and Gwaandama data is *déy*³⁸² and *déy*, respectively. Its meaning is not yet fully understood. According to one Deeləmə speaker, it expresses curiosity rather than doubt, as the following examples illustrate.

- Deeləmə**
- (855) *mə-fwɔkà* *gàlá-hà* *mó* *wá*
 2SG-brush tooth-HA 2SG.POSS INT
 ‘did you brush your teeth?’
- (856) *mə-fwɔkà* *gàlá-hà* *mó* *déy*
 2SG-brush tooth-HA 2SG.POSS INT
 ‘did you really brush your teeth?’
- (857) *mə-já* *nì* *já-’á* *wá*
 2SG-eat thing food-A INT
 ‘did you eat (food)?’
- (858) *mə-já* *nì* *já-’á* *déy*
 2SG-eat thing food-A INT
 ‘you ate (food), didn’t you?’
- (859) *zwá-y-á* *á-zə* *màkàrà̀n-tá* *wá*
 child-Y-REF.DEF 3SG-go school-TA.DEF INT
 ‘did the child go to school?’
- (860) *zwá-yá* *á-zə* *màkàrà̀n-tá* *déy*
 child-Y 3SG-go school-TA.DEF INT
 ‘the child went to school, didn’t s/he?’
- Gwaandama**
- (861) *án-wámà* *dzwá-b* *déy*
 3SG.SR-born.CPL child-B INT
 ‘he had born sons, didn’t he?’ [B-N1]
- (862) *bàn-hámá* *Gwǎ̀.dì-b-à* *déy*
 3PL.SR-COP.CPL Gwaanda-B-REF INT
 ‘[Is it he who brought the air sacks? – No, they were in the house already. –]
 Gwaanda people already had them, isn’t it?’ [B-N1]

Gwaandama also has a particle *nə*, which may be an interrogative tag as well. In Gvyyuma, a similar morpheme *ní* is reported in J. Newman (1978: 101) and B. Newman (1976: 56,

³⁸² Sometimes also pronounced as [dɛ́].

1978: 33). However, it is not clear whether it is an interrogative tag or how it differs from the interrogative particle *wí*.

Guyuma

- (863) *a-ningam* *dí-ka* *ma* *ní*
 3SG-give.2SG.OBJ cloth-KA DEM2 INT
 ‘did he give you this cloth?’ (Newman 1976: 56)

Gwaandama

- (864) *yíká* *táwri*³⁸³ *Ìstifánùs* *bàr* *mwár-kà-rá* *nà*
 then late Istifanus climb leadership-KA-PP.on INT
 ‘that was when late Istifanus got to power [isn’t it]?’ [B-N2]

In the Gwaandama data, additional interrogative tags occur (cf. §3.8.7). These are clearly complex phrases that include negative particles. However, the literal meaning of these phrases is not yet clear. The anticipated responses to questions with these interrogative phrases are affirmative (cf. König/Siemund 2007: 396f.).

Gwaandama

- (865) *mà-tsím=ì* *híngá*
 2SG-know=3SG.OBJ INT
 ‘you know him/her, don’t you?’ (Sabe 1995: 263)

- (866) *mà-tsím=ì* *hàgîn.dúkùn.gá.wí*
 2SG-know=3SG.OBJ INT
 ‘you know him/her, is it not?’ (Sabe 1995: 263)

- (867) *tswàn-tà* *à-còù* *ù-tà*
 abuse-TA 3SG-pertain paternal.kinship-TA

jàhám-tà *à-còù* *kwàn-tà*
 burial.relation-TA 3SG-pertain maternal.kinship-TA

hà.gá.nà.dúkù.gá

INT

‘joking relations pertain to the paternal kinship group [while] burial relations pertain to the maternal kinship group, isn’t it?’ [B-N1]

7.2.4.4 Rhetorical questions

Rhetorical questions differ from other questions in their discourse function. While so-called information-seeking questions, i.e. content and polar questions, demand an answer, rhetorical questions do not. They also differ from information-seeking questions in that they “have the feel of an assertion” (Dehé/Braun 2020: 607f.).

³⁸³ Actually *távrá*.

Rhetorical questions in Nvngvrama are formed by negating a declarative clause, optionally with a polar interrogative particle (e.g. example (869)). No examples are attested in the Deeləmə data.

Gvyvma

(868) *na-nĩ=gi*
2SG-hear=NEG
'aren't you hearing?' (Newman 1976: 58)

(869) *a-bvr=ga wi*
3SG-move=NEG INT
'didn't he move away?' (Newman 1976: 58)

Gwaandama

(870) *nə-yúwámá gə=ni*
1SG-COP.FUT.CPL NEG=inside

ná-pərgá mángv̀̀v̀-l-à=gà
1SG-pluck.FV mango-L-REF=NEG
'shall I have not been plucking a mango?' (Sabe 1995: 426)³⁸⁴

(871) *há gə ná=nə-dáw kwàr-ká*
COP NEG PROG=1SG-put medicine-KA

yà-à dàw-rá=gá
place-A sleep-PP.on=NEG
'was I not putting the medicine on the bed?' (Sabe 1995: 394)³⁸⁵

7.3 Clauses with nonverbal predicates

Simple clauses with verbal predicates have been described in the previous chapters. However, clauses can also have nonverbal predicates. Five types can be differentiated typologically: nominal, adjectival, existential, locational and possessive predicates. They usually express a stative condition and give some information about the subject of the clause, either with another nominal ('my dog is a cocker spaniel') or with an adjective ('my dog is black'), with information about the location ('my dog is in the house') or something about its possessions ('I have a dog') or they simply state that something exists ('there is a dog') (Dryer 2007a: 225, Dürr/Schlobinski 2021: 124).

Most languages "treat at least one of these types differently from the other two" (Dryer 2007a: 225). Sometimes languages use a simple juxtaposition of the nonverbal predicate

³⁸⁴ The clause is translated as 'shall I be plucking a mango?'. However, due to the negation, it is translated differently here.

³⁸⁵ The clause is rendered as 'do/am I putting the medicine on the bed?' in the original source. However, given that the clause is negated and the copula and the verb are in their neutral form, i.e. the factative, the clause is translated differently in this instance.

with its subject, while other languages use a copula. The copula may come from a grammaticalised verb, but it may also be nonverbal in nature (Dryer 2007a: 225f.).

In Nvngvrama, nominal predicates are formally treated differently from the other types. They use a simple juxtaposition (§7.3.1), whereas the other non-verbal clauses use a copula (§7.3.2). The language is thus of the ‘split’ type (Stassen 2009: 265f.).

7.3.1 Nominal predicates

Nominal predicates, which state a general predication, are simply juxtaposed to the subject, i.e. a noun (phrase) or a subject pronoun. There is no formal distinction between ‘proper/class inclusion’ or ‘true nominal predicates’ (e.g. ‘she is a teacher’) and ‘equative/equational clauses’ or ‘identification clauses’ (e.g. ‘he is my father’) (cf. Payne 1997: 114, Dryer 2007a: 233).

Deeləmə

- (872) *ní* *zwí-y-è*
 1SG.SBJ child-Y-REF
 ‘I am a child’

- (873) *yìr-á* *šm-à*
 woman-F.DEF mother-w
 ‘the woman is a mother’

Gvyvma

- (874) *jìyù-hé=ù* *nǎ-há*
 goat-HA.REF=DEF animal-HA.REF
 ‘the goats are animals’

- (875) *yina* *kwandi-y*
 3SG.SBJ chief-Y
 ‘s/he is a chief’ (Newman 1976: 38, 46)

- (876) *níné* *zwí-y-è*
 1SG.SBJ child-Y.REF
 ‘I am a child’

- (877) *yina* *kwam* *Ayu*
 3SG.SBJ little Rabbit
 ‘he is little Rabbit’ (Newman 1976: 67)

Gwaandama

- (878) *yì-r-á* *yá-bì* *dìbkòn-y-à*
 man-Y.1-REF 1-DEM1 fighter-Y-REF
 ‘this man is a fighter’ (Hiraki 1986: 105)

- (879) *yìnà* *Bagari*
 3SG.SBJ Bagari
 ‘he is Bagari’ [B-N1]

Deeləmə and Gwaandama have a different strategy than Gvɔvma for the negation of nominal predicates. In Deeləmə and Gwaandama, the copula *hà* and the negator *gá* are inserted after the subject and the negative marker =*gÁ* (Deeləmə)/=*gÁ* (Gwaandama) is added to the final element of the clause (cf. §6.5 on negation of the imperfective).

Deeləmə

(880) *ní* *hà* *gá* *kúri-w-à=gà*
 1SG.SBJ COP NEG father-W-REF=NEG
 ‘I am not a father’

(881) *ní* *hà* *gá* *zwá-y-à=gá*
 1SG.SBJ COP NEG child-Y-REF=NEG
 ‘I am not a child’

Gwaandama

(882) *yí-bí* *hà* *gá* *dzwí-y=gá*
 1-DEM1 COP NEG child-Y=NEG
 ‘this one is not a child’

(883) *kàlgìn-à* *hà* *gá* *nì* *dzv-á=gá*
 lie-A COP NEG thing.6 good-6=NEG
 ‘lying is not a good thing’ [B-N1]

Gvɔvma also has double negation marking, but it differs from Deeləmə and Gwaandama in that the first negation morpheme is *na*³⁸⁶ and it occurs at the beginning of the clause³⁸⁷. The second marker is the clitic =*gÁ*, which attaches to the last lexeme of the clause (cf. Newman 1976: 58). The subject pronoun 3SG is represented by a zero morpheme. Newman (1976: 58) assumes that “the negative particle *na* replaces the subject”, but examples (886) and (887) suggest otherwise.

Gvɔvma

(884) *na* \emptyset *mwã-y-a=ga*
 NEG 3SG.SBJ girl-Y-REF=NEG
 ‘she is not a girl’ (Newman 1976: 58)

(885) *na* \emptyset *ni* *ham-a=ga*
 NEG 3SG.SBJ thing.6 good-6=NEG
 ‘it isn’t a good thing’ (Newman 1976: 58)

(886) *na* *ní* *Ayu=ga*
 NEG 1SG.SBJ Rabbit=NEG
 ‘is it not me Rabbit?’ (Newman 1976: 58)

³⁸⁶ Tone is not specified in the examples.

³⁸⁷ With one exception:

nín *ná* *zwí-y-é=gè*
 1SG.SBJ NEG child-Y-REF=NEG
 ‘I am not a child’

- (887) *na mir zwa-b-a a ciba-w-a=v=ga*
 NEG 1PL.EXCL.SBJ child-B-REF GEN slave-W-REF=DEF=NEG
 ‘we are not children of the slave’ (Gal 4: 31) (Wycliffe Bible Translators n.d.)

When expressing a past or future notion, a copula is inserted between the noun phrases or pronouns. For an overview of the different copulas in the varieties, cf. §3.8.5. Examples of nominal predicates in the past and future are:

Deeləmə

- (888) *yí-r-ə á-hára kúrí-w-ə*
 man-R.1-REF.DEF 1-COP.PST.NOM father-W-REF
 ‘the man was a father’

- (889) *yír-á à-yèrá ðm-à*
 woman-F.1.DEF 1-COP.FUT.NOM mother-W.REF
 ‘the woman will be a mother’

Gvyoma

- (890) *del na-har zwĩ-y-e*
 when 1SG-COP.PST.NOM child-Y-REF
 ‘when I was a child...’ (Newman 1976: 46)

- (891) *kə-yiwã na Yamba-w-a*
 2PL.FUT-COP.FUT.NOM like God-W-REF
 ‘you will be like God’ (Gen 3, 5) (Wycliffe Bible Translators n.d.)

- (892) *nə-yiwrã kur-w-e twakɪ-m dabdab*
 2SG.FUT-COP.FUT.NOM father-W-REF ground-M many
 ‘you will be the father of many nations’ (lit. grounds) (Gen 17, 4) (Wycliffe Bible Translators n.d.)

Gwaandama

- (893) *à-hára: dzwĩ-bàmbà-y-à*
 1-COP.PST.NOM child-bow-Y-REF
 ‘s/he was a hunter’ [S-N2]

- (894) *yà á-bí á-n-hára gá*
 place.6 6-DEM1 6.SR-COP.PST.NOM NEG

tí-l=gá wê
 thicket-L=NEG INT
 ‘was this place not a thicket?’ [B-N1]

- (895) *à-yèrá dzwĩ-bàmbà-y-à*
 1.FUT-COP.FUT.NOM child-bow-Y-REF
 ‘s/he will be(come) a hunter’ [S-N2]

7.3.2 Other non-verbal clause types

Nvngvrama uses the same copula with adjectival, existential, locational and possessive predicates (when the possessed item is a noun, not a pronoun), with a small change in Deeləmə (cf. §3.3.2). The copula occurs between the subject and the predicate. There is inconsistency in the data regarding whether a subject agreement marker is attached to the copula or not. Subject agreement marking mostly occurs in NF classes B and HA and is often present with copulas in the factative or future. It is suspected that it is in the midst of a reduction process in non-verbal clauses. Therefore, when no subject agreement marker is overtly present, it is indicated by a zero morpheme.

Examples and differences will be discussed in the following sections.

7.3.2.1 Adjectival predicates

The adjectival predicate agrees with the subject, except those that are invariable (cf. §3.4.1 and 3.5). The following examples in all three varieties show clauses with adjectival predicates. Subject agreement markers are only overtly expressed when the subject noun occurs with NF class B or HA. In all other cases, subject agreement markers are covert and are thus represented by a zero morpheme in the examples (compare examples (900) and (901), cf. §4.4.10).

	Deeləmə		
(896)	<i>miyá-w-á</i> goat-W.3-REF.DEF 'the goat is small'	<i>Ø-hà</i> 3-COP	<i>filé</i> small
(897)	<i>dí-ká</i> cloth-KA.7.DEF 'the cloth is green'	<i>Ø-hà</i> 7-COP	<i>fíkàfíkà</i> green
	Gvɔvma		
(898)	<i>swà-w-á=ò</i> house-W.3-REF=DEF 'the house is big'	<i>Ø-hà</i> 3-COP	<i>mwàrá-wà</i> big-3
(899)	<i>múngòrò-lá=ò</i> mango-L.5.REF=DEF 'the mango is sour'	<i>Ø-hà</i> 5-COP	<i>yómà-là</i> sour-5
	Gwaandama		
(900)	<i>wá-y-á</i> father-Y.1-REF 'the father is friendly' [S-N3]	<i>Ø-hà</i> 1-COP	<i>fírà-yà=ò</i> friendly-1=DEF
(901)	<i>wá-b-á</i> father-B.2-REF 'the fathers are friendly' [S-N3]	<i>ba-hà</i> 2-COP	<i>fírà-bà=ò</i> friendly-2=DEF

- (902) *Ø-hà* *fìrà-yà*³⁸⁸
 1-COP friendly-1
 ‘s/he is friendly’ [S-N2]
- (903) *tám-ná:* *yá-w-á* *Ø-hà* *dzwé-wà*
 play-thing.A game-W.3-REF 3-COP good-3
 ‘playing is good’ (Sabe 1995: 151)
- (904) *wàhà-ká* *Ø-hà* *filí*
 tree-KA.7 7-COP small
 ‘the tree is small’ [S-N3]³⁸⁹
- (905) *Bṣhóyá-b-á* *bà-hà* *dàbdàb*
 Bonhoya-B.2-REF 2-COP different
 ‘the Bonhoyaba [a Nungura paternal kinship group] are different’ [B-N1]

In Deeləmə, a nasal =*n* is sometimes added after the copula in clauses with adjectival predicates. It appears to be triggered when the adjective agrees with the head noun (cf. examples (906) to (909) below), but does not occur when the adjective is invariable (cf. examples (896) and (897) above). It is hypothesised that it is derived from the instrumental preposition *nə̀*, in which case the adjective would acquire nominal features, forming an adpositional phrase with the preposition. In such an instance, a clause like (906) should be translated as ‘the tortoise is with bigness’. Since invariable adjectives are ideophones, they cannot acquire nominal features and therefore cannot occur in an adpositional phrase. The nasal =*n* it is glossed as =N in the examples in the meantime, until this hypothesis is verified or falsified (cf. §3.3.2 and §7.3.2.4).

Deeləmə

- (906) *tángimákwándi-l-á* *Ø-hà=n* *mwára-là*
 tortoise-L.5-REF.DEF 5-COP=N big-5
 ‘the tortoise is big’
- (907) *tángimákwándi-’à* *Ø-hà=n* *mwára-’à*
 tortoise-A.6 6-COP=N big-6
 ‘tortoises are big’
- (908) *Ø-hà=n* *sísá-mà*
 9-COP=N cold-9
 ‘it [e.g. the water/weather] is (being) cold’
- (909) *Ø-hà=n* *bəlǐ* *fár-wà* *nó*
 3-COP=N cow.3 red-3 there
 ‘it is a red cow there’

³⁸⁸ Actually *fìrà-yàv̀*, also in examples (918) and (920).

³⁸⁹ but:

wàhà *filí-ká=ù*
 tree.7 small-7=DEF
 ‘the small tree’ [S-N3]

This nasal also occurs in the following examples with other copulas indicating past and future (compare example (911) with (910) and example (913) with (912)).

Deeləmə

- (910) *tángimákwándi-l-á à-háyá filè*
 tortoise-L.5-REF.DEF 5-COP.PST small
 ‘the tortoise was small’
- (911) *fwá-w-á Ø-háyá=n mwára-wà*
 house-W.3-REF.DEF 3-COP.PST=N big-3
 ‘the house was big’
- (912) *tángimákwándi-l-á à-bá-yùwá filè*
 tortoise-L.5-REF.DEF 5-?-COP.FUT small
 ‘the tortoise will be small’
- (913) *tángimákwándi-l-á à-bá-yùwá=n mwára-là*
 tortoise-L.5-REF.DEF 5-?-COP.FUT=N big-5
 ‘the tortoise will be(come) big’

As the clauses above show, different copulas must be used to change the aspect of the clause (cf. §3.3.2). In these cases, the subject agreement marker generally occurs as *a-* for NF classes representing the singular. However, there are some exceptions that cannot be accounted for at this time, such as Deeləmə example (911) above and Gyyuma example (916) below. No examples occur in the data for NF classes depicting the plural. Furthermore, the morpheme *bá-* in the Deeləmə examples (910) and (913) remains unexplained.

Gyyuma

- (914) *swá-w-á=ù á-há mwára-wà*
 house-W.3-REF=DEF 3-COP.PST big-3
 ‘the house was/used to be big’
- (915) *á-há sísí*
 3SG-COP.PST cold
 ‘it [e.g. the water/weather] was cold’
- (916) *má-m-á=ù Ø-⁺yùwǎ sísí*
 water-M.9-REF=DEF 9-COP.FUT cold
 ‘the water will be cold’
- (917) *ma-m-a=v a-yvǎ jvma-ma*
 water-M.9-REF=DEF 9-COP.FUT hot-9
 ‘the water is getting hot’ (Newman 1976: 54)

Gwaandama

- (918) *à-há:*³⁹⁰ *fírà-yà*
1-COP.PST friendly-1
's/he was friendly' [S-N2]
- (919) *à-há:* *gé* *cínà-yù=gá*
1-COP.PST NEG healthy-1=NEG
's/he has been ill' (lit. s/he has not been healthy') [S-N2]
- (920) *à-yùwá* *fùrà-yà*
1.FUT-COP.FUT friendly-1
's/he will be friendly' [S-N2]

7.3.2.2 Existentials

Existential statements assert “the existence of some entity, usually in some specified location” (Payne 1997: 112). In Nungurama, this is expressed using athetic construction, i.e. a “monomial” predication in which “no argument is picked out as a predication base: the entire situation, including all of its participants, is asserted as a unitary whole” (Sasse 1995: 4f.). The construction involves a noun phrase in Nungurama followed by the particle *hà* in clauses with a present reading in all three varieties. Deeləmə uses the particles *háyá* and *yùwá* for past and future readings, respectively. There are no instances of these particles in the data on Guyuma and Gwaandama.³⁹¹

Deeləmə

- (921) *yàhá-w-à* *Ø-hà*
ghost-W.3-REF 3-COP
'there is a ghost'
- (922) *sí-hà* *bá-hà*
fly-HA.4 4-COP
'there are flies at the riverbank'
- (923) *sí-hà* *bà-háyá*
fly-HA.4 4-COP.PST
'there were flies'
- (924) *sí-w-à* *á-yùwá*
fly-W.3-REF 3-COP.FUT
'there will be a fly'

³⁹⁰ The reason for the low tone on the subject agreement marker in this and the following example is unclear.

³⁹¹ The particles *hà*, *háyá* and *yùwá* are glossed as COP and are also listed in §3.3.2 with the other copulas although they do not function as copulas in existential clauses, because such constructions are not bipartite, i.e. the particles do not function as linkers, which is a defining feature for copulas. However, they do function as copulas in other contexts and are therefore also glossed as such here.

- (925) *sí-hà* *bà-yówá*
 fly-HA.4 4-COP.FUT
 ‘there will be flies’

Gyyuma

- (926) *má-m-á=ò* *Ø-hà*
 water-M.9-REF=DEF 9-COP
 ‘there is the water’

Gwaandama

- (927) *dwà-m-à* *Ø-hà*
 water-M-REF 9-COP
 ‘there is water’

In order to negate existentials, the clause-final negative clitic is added.

Deeləmə

- (928) *yàhá-w-á* *Ø-hà=gá*
 ghost-W.3-REF 3-COP=NEG
 ‘there is no ghost’

Gyyuma

- (929) *má-m-á=ò* *Ø-hà=gà*
 water-M.9-REF=DEF 9-COP=NEG
 ‘there is no water’

- (930) *ba-a* *Ø-ha=ga*
 money-A.6 6-COP=NEG
 ‘there isn’t any money’ (Newman 1976: 58)

Gwaandama

- (931) *dwà-m-à* *Ø-hà=gá*
 water-M.9-REF 9-COP=NEG
 ‘there is no water’

In the data on Gyyuma, a second possibility for negation occurs: the copula *hà* and the negative marker =*gá* prepose the noun and the second negative marker =*gà* follows it (compare (929) with (932) and (930) with (933)).

- (932) *hà=gá* *má-m-á=ò=gà*
 COP=NEG water-M-REF=DEF=NEG
 ‘there is no water’

- (933) *hà=gá* *ba-a=gà*
 COP=NEG money-A=NEG
 ‘there isn’t any money’ (Newman 1976: 58)

- (934) *hanja ha=ga singila-ha kargar-l-a-ya=v=ga di*
 although COP=NEG sheep-HA pen-L-REF-PP.inside=DEF=NEG if
 ‘[...] though there are no sheep in the pen [...]’ (Hab 3, 17) (Wycliffe Bible Translators n.d.)

Existentials, such as ‘there once was X and Y’ or ‘long ago, there were X and Y’, are often used to introduce the main characters of a story. However, in Nvngvrama, the characters are simply mentioned without a copula, as in the Gvyvma examples below:

Gvyvma

- (935) *ci wanki-w-a a-ze ne*
 other time-W.3-REF 3-do COM

Ayu di Larawa di Nungeyewe
 Rabbit and Elephant and Hippo
 ‘a long time ago, there were Rabbit, Elephant and Hippo’ (J. Newman 1978: 91f.)

- (936) *ci mwã-y-a gi-ya ma³⁹² zwa-b na-b-sir*
 certain woman-Y.1-REF ?-1 DEM2 child-B.2 NUM-2-two
 ‘there was a certain woman with two children’ (Newman 1976: 67)

7.3.2.3 Locational predicates

Locational predicates are existentialthetic constructions with a locative complement. The spatial preposition *á* is optional, except when it precedes a proper noun (such as a city, country or year, cf. examples (945) and (946)).

Deeləmə

- (937) *mìyá-há bà-hà á páká-l-dà*
 goat-HA.4.DEF 4-COP SPAT field-L-PP.on
 ‘there are goats on the field’

 (938) *sí-hà bá-hà á fí-kà mí-l-ə̀*
 fly-HA.4 4-COP SPAT river-KA body-L-REF
 ‘there are flies at the riverbank’

 (939) *Ø-hà fə̀*
 3SG-COP home
 ‘s/he is at home’

³⁹² Newman glosses *giya-ma* as ‘here-this’, which does not apply to the analysis in this thesis. The clause could alternatively be represented as follows. Either way, the translation of *gi* remains unsolved.

ci mwã-ya gi ya-ma zwa-b na-b-sir
 certain woman-Y.1 ? 1-DEM3 child-B.2 NUM-2-two
 ‘there was a certain woman with two children’ (Newman 1976: 67)

Guyoma

- (940) *ciré-w-é=ù* *Ø-hà* *filú-yé=ù*
 knife-W.3-REF=DEF 3-COP field-PP.inside=DEF
 ‘the knife is in/on the field’
- (941) *nín* *ná-hà=gá* *yã=gá*
 1SG.SBJ 1SG-COP.PST=NEG here=NEG
 ‘me, I wasn’t here’ (B. Newman 1978: 33)
- (942) *Ø-ha* *ye*
 3SG-COP there
 ‘s/he is there’ (J. Newman 1978: 92)
- (943) *ba-ha* *da-ka-ra*
 3PL-COP road-KA-PP.on
 ‘they are on the road’ (Newman 1976: 46)
- (944) *dél* *bà-hár* *mwá-w* *mí-l-é=ù*³⁹³
 when 3PL-COP.PST.NOM³⁹⁴ farm-W body-L-REF=DEF
 ‘when they were at the farm’ (Newman/Newman 1977b: 70)

Gwaandama

- (945) *pàtì-he* *siyàsà* *nà-há-bì* *bà-há*
 party-HA.4 political NUM-4-how.many 4-COP.PST

á *Nìjéríyà* *á* *1982=nà*
 SPAT Nigeria SPAT 1982=CF
 ‘how many political parties were in Nigeria in 1982?’ (Hiraki 1986: 179), [S-N1]
- (946) *dzwá-b* *nà-b-kwì* *kawvndá-bá* *ba-yè*
 child-B.2 NUM-2-three first-2 2- 3SG.POSS

bà-hà *á* *Jòs*
 2-COP SPAT Jos
 ‘her first three children were/lived in Jos’ (Hiraki 1986: 208)
- (947) *nì* *dà* *Ø-hà* *tébùr-w-è-rà*³⁹⁵
 thing.6 eat 6-COP table-W-REF-PP.on
 ‘the food is on the table’ (Hiraki 1986: 84)
- (948) *nà-há:* *tán-l-á=ni*
 1SG-COP.PST room-L-REF=PP.inside
 ‘I was in a room’ (Sabe 1995: 144)

³⁹³ *mìlèù* in Newman/Newman (1977b: 5).

³⁹⁴ It is unclear why the copula used for nominal predicates is employed here.

³⁹⁵ Actually *tébùrwùrà*.

- (949) *Ø-hà* *tswá=jí=ù*
 3SG-COP house=PP.inside=DEF
 ‘s/he is in the house’ [S-N2]

7.3.2.4 Possessive predicates

Predicative possession is defined by Stassen (2009: 15) as comprising two entities, the possessor and the possessee, which are in a “relatively enduring locational relation”. The “possessor exerts control over the possessee” (Stassen 2009: 15), who is usually human.

Stassen (2009: 48, 54, 57, 62) identifies four basic types of possessive predicates: *Locational Possessive*, *With-Possessive*, *Topic-Possessive* and *Have-Possessive*. Nɔ̀ngvɔ̀rama has three different constructions that can be attributed to *Locational Possessives*, *Topic-Possessives* and *With-Possessives*. They all have in common that they can be regarded as “SYNTACTICALLY INTRANSITIVE” and are “encoded in the basic form of a LOCATIVE or EXISTENTIAL SENTENCE” (Stassen 2009: 49). Locational possessives involve the possessee (Y) as the subject of the clause and the possessor (X) in oblique or adverbial position (Stassen 2009: 50). The examples below can thus literally be translated as ‘there is Y with X’.

In a *Locational Possessive* in Nɔ̀ngvɔ̀rama, the possessor is marked with the comitative (cf. §3.8.2) in oblique position. The pronouns used for the possessor are similar to the subject, object and possessive pronouns as described in §3.6, but not identical. The copula and the subject agreement markers are optional (indicated by brackets in the examples).

Deelomɔ̀

- (950) *gwán-w-à* (*Ø-hà*) *jí=nè*
 horse/car-W.3-REF (3-COP) 1SG=COM
 ‘I have a car’

Gvɔ̀vɔ̀ma

- (951) *bá* *bré* (*Ø-hà*) *jí=nè*
 money.6 much.6 (6-COP) 1SG=COM
 ‘I have a lot of money’

- (952) *kwara-w-a=v* (*Ø-ha*) *jí=ne*
 calabash-W.3-REF=DEF (3-COP) 1PL.EXCL=COM
 ‘we have the calabash’ (Newman 1976: 47)

Gwaandama

- (953) *béǎ-há* (*bà-há*) *yì=nà*
 cow-HA.4 (4-COP) 3SG=COM
 ‘s/he has cows’ [B-N1]

In Gwaandama, a morpheme *-r* is sometimes suffixed to the copula in possessive predicate constructions. It is possible that *-r* is the relational verb extension *-rǎ*, although in Gwaandama it is generally not shortened. Therefore, *hà-rí* would be expected instead of *hà-r* if it was indeed the relational verb extension (cf. §3.3.3.3).

- (954) *mátv-w-á* *wa-yì* *Ø-hà-r* *wá-mv=na*
 car-W.3-REF 3-which 3-COP-? 3-2SG.POSS=CF
 ‘which car is yours?’ (Hiraki 1986: 132)
- (955) *nà* *bwàb-à* *í-bù* *Ø-hà-r* *kàlí-à*
 mouth.6 tie-6 6-3PL.POSS 6-COP-? one-6
 ‘their promises were all the same’ (lit. their tied mouths are one) (Hiraki 1986: 213)

When the possessor is not a pronoun but a noun (phrase), it must be topicalised through left-dislocation. This parallels Stassen’s (2009: 57f.) *Topic-Possessive*. As the possessor is not only topicalised but also represented in oblique object position, it also resembles the locational possessive. Examples in Nvngvrama only occur in the Guyuma and Gwaandama data and can be translated as ‘regarding X, there is Y with X’.

Guyuma

- (956) *tara-b* *silá-ta* (*Ø-ha*) *bi=na* *wi*
 Tara-B.2 cotton-TA.8 (8-COP) 3PL=COM INT
 ‘do the Tara people have cotton (with them)?’ (Newman 1976: 56)

Gwaandama

- (957) *wé* *nú* *mìyá-w-á* (*Ø-hà*) *gá* *yì=ná=gá*
 father.Y.1 1SG.POSS goat-W.3-REF (3-COP) NEG 3SG=COM=NEG
 ‘my father, he has no goat’

Predicative possession can also be expressed using a *With-Possessive* construction in Nvngvrama. This construction differs from the other two possible constructions in that the possessor, not the possessee, is in subject position. Consequently, the possessee occurs as an oblique object (Stassen 2009: 54). It is noteworthy that Deeləmə and Gwaandama, but not Guyuma, display a clitic =n and =ní/=nà, respectively, which may be the same as the nasal occurring with adjectival predicates in Deeləmə (cf. §3.3.2 and §7.3.2.1). It cliticises onto the copula or, if the clause is negated, to the negation particle.

Deeləmə

- (958) *kùrí-w-à* *ná* (*Ø-hà=n*)
 father-W.3-REF 1SG.POSS (3-COP=N)
- mìyá-há* *yì=nà* *kô*
 goat-HA.DEF 3SG=COM ten
 ‘my father has ten goats’
- (959) *yír-à* *Ø-hà=n* *fúwá-w-à* *yì=nà*
 woman-F.1 1-COP=N house-W-REF 3SG=COM
 ‘a woman has a house’
- (960) *Ø-hà* *gá=n* *gwán-w-à* *ní=nà=gà*
 1SG-COP NEG=N horse/car-W-REF 1SG=COM
 ‘I don’t have a car’

- (961) *Ø-hà* *gá=n* *bá-‘á* *ní=nà=gà*
 1SG-COP NEG=N money-A.DEF 1SG=COM=NEG
 ‘I don’t have money’
- Gyuma**
- (962) *Ø-hà=gá* *bá* *ní=nè=gè*
 1SG-COP=NEG money 1SG=COM=NEG
 ‘I don’t have money’
- (963) *kùrù* *nú* *Ø-hà=gá* *jíjé-hé* *yì=ná=gà*
 father.1 1SG.POSS 1-COP=NEG goat-HA 3SG=COM=NEG
 ‘my father has no goats’
- (964) *bá* *Ø-hà=gá* *kwàrà-há* *yì=ná=gà*
 COMPL 3SG-COP=NEG calabash-HA 3SG=COM=NEG
 ‘s/he says that s/he doesn’t have calabashes’
- Gwaandama**
- (965) *ná-⁺hà=nì* *bá-á* *bìrà=è*
 1SG.IMP-COP=N money-A.6 much.6=DEF
 ‘I have much money’ (Hiraki 1986: 191), [S-N1]
- (966) *ná-⁺hà=nì* *dzwí-y* *kàlì-yà*
 1SG.IMP-COP=N child-Y.1 one-1
 ‘I have one child’ (Hiraki 1986: 58), [S-N1]
- (967) *kà=hà* *gá=nà* *bwá-l* *kó* *flí=gá*
 1PL.INCL=COP NEG=N salt-L even small=NEG
 ‘we don’t have salt at all’ (Hiraki 1986: 186), [S-N1]

7.4 Complex clauses

7.4.1 General remarks

Complex clauses contain two or more simple clauses. These can be either coordinated and are therefore syntactically equal, or subordinated, meaning one clause is dependent on the other. Subclauses are embedded in the main clause and therefore cannot stand alone. They can be relative clauses, complement clauses and clauses reporting direct or indirect speech or adverbial clauses. Relative clauses are discussed in §5.4.2 as they function as attributes of a noun phrase and agree with the head noun. Other coordinated and subordinated clauses are introduced in the following subchapters.

7.4.2 Clause coordination

In many languages, coordination of “two or more units of the same type” (Haspelmath 2007: 1) occur, particularly with the conjunction ‘and’. Often, or even exclusively, this conjunction combines nouns and noun phrases (for noun phrase coordination in Nvngvrama, cf. §5.3). In other languages, such as Nvngvrama, verbs and verb phrases are

also combined (Schachter/Shopen 2007: 47). To coordinate two verbal clauses in Nungvrama, two different strategies can be used.

The first strategy, referred to by Haspelmath as (2007: 6f.) “asyndetic coordination”, involves the simple juxtaposition of clauses without any overt conjunction. This strategy is illustrated in the following examples, in which the clauses are enclosed in square brackets.

Deeləmə

- (968) *[á-fwà]* *[ná=á-tàm]*
 [3SG-sit] [PROG=3SG-weep]
 ‘s/he sat [and] he was weeping’

- (969) *[ná-mókà]* *[nə-zú]* *fwá-w-à]*
 [1SG-run] [1SG-go.VEN] house-W-REF]
 ‘I ran around the house’

Guyuma

- (970) *[ná-cín=gó]* *iyà=gà]*
 [1SG-meet=NEG] 3SG.OBJ=NEG]

[yíná] *núràm* *ká-cín-é]*
 [3SG.SBJ] now 1PL.EXCL-meet-FV]
 ‘I never met him/her [but] now we are meeting’ (lit. I never met him/her, it is now, we are meeting)

- (971) *[á-sú]* *á* *cámbe-l-é-rà]*
 [3SG-sit.VEN.FV] SPAT chair-L-REF-PP.on]

[á-cě] *tákádà-w-à]*
 [3SG-read.FV] book-W-REF]
 ‘s/he is sitting on a chair [and] s/he is reading a book’

Gwaandama

- (972) *[Kwàyàwì* *ā* *yìnà* *gú* *bíłí-w-ə* *yù]*
 [Kwayawi] ? 3SG.SBJ follow cow-W-REF 3SG.POSS]

[à-tsáw-r=ó=nà]
 [3SG-descend-RLT=VEN=CF]
 ‘Kwayawi followed his cow and descended here’ [B-N1]

- (973) *[há]* *gə* *ná=nə-jìr* *wá-mà=gá]*
 [COP] NEG PROG=1SG-like 3-DEM3=NEG]

[ná-jìr-á] *wá-bí]*
 [1SG-like-FV] 3-DEM1]
 ‘I don’t like this, [but] I like that’ (Hiraki 1986: 204), [S-N1]

- (974) *[gù-y dzù]*
 [thief-Y go.VEN]
- [bá-wám dí-tá ta-ɲu dzì-tá=ù]*
 [3PL-pack cloth-TA.8 8-1SG.POSS all-8=DEF]
 ‘a thief came [and] he packed all my clothes/dresses’ (lit. ...and all my clothes were packed/they packed all my clothes) (Hiraki 1986: 105)

In the second strategy, which is known as ‘monosyndetic coordination’, the clauses are linked using coordinators such as ‘but’, ‘or’ and ‘then’. Nungurama generally uses the *[A co-B]* pattern, also known as ‘medial prepositive’, where *A* and *B* represent the two clauses and *co* represents the coordinator (Haspelmath 2007: 6, 8). The coordinators are highlighted in bold in the examples below.

Deelɔmɔ

- (975) *[sǝ-w-á ná=á-zá]*
 [dog-W.3-REF PROG=3SG-act]
- yúnà à-bó tí-ká-yà]*
 as.if 3SG-climb tree-KA-PP.inside]
- [ámmá³⁹⁶ á-hàn=gà]*
 [but 3SG-COP.PST=NEG]
 ‘the dog was acting as if he would climb the tree but it didn’t happen’

Gvyɔma

- (976) *[dí nán=sá-r=i á dúm-ká-rà=ù]*
 [then PROG.3SG=run-RLT=3SG.OBJ SPAT horn-KA-PP.on=DEF]
- [dí jíyá-w-á=ù bà-sá]*
 [then dog-W-REF=DEF 3PL-run]
 ‘then he was running with him on the horn and then the dog ran’

Gwaandama

- (977) *[bà-dzà=u] [yíká bə-kùr bàlà]*
 [3PL-go=VEN] [then 3PL-return again]
 ‘they came and (then) went again’ [S-N2]
- (978) *[nú̀sù-b-à=ù³⁹⁷ mùrù ná=bə-bà̀mà]*
 [forefather-B.2-REF=DEF 1PL.INCL.POSS PROG-3PL-sell.CPL]
- yì-b ní] [kó ná³⁹⁸=bə-ɲwà yì-bà]*
 person-B INT] [DISJ PROG-3PL-buy person-B]
 ‘were our forefathers selling people or were they buying people?’ [B-N1]

³⁹⁶ Hausa loanword; see e.g. Jaggar (2001: 599f.).

³⁹⁷ In [WL-N1], nasalisation occurs on the first and second vowel or only on the second vowel (*nú̀sù̀bà̀* or *nú̀sù̀bà̀̀*) and is translated as ‘royal council’.

³⁹⁸ The progressive copies the tone of the following TBU. The divergence from this general rule in this example cannot be explained.

The coordinator ‘then’ indicates temporal sequencing rather than simultaneous actions. For an alternative way to express temporal sequencing and anteriority, cf. §6.2.3 and §6.2.4.

7.4.3 Complement clauses and reported speech

A complement clause is a predication that “can be viewed as an argument of a predication if it functions as the subject or object of that predicate” (Noonan 2007: 52). There are various ways to form a complement clause and different complementisers to determine it and to signal its beginning or end (Dryer 2007c: 93, Noonan 2007: 55).

In Nvngvrama, only complement clauses functioning as objects occur in the data. These clauses can be inserted into the main clause in different ways: In some cases, a complement clause has no complementiser but simply follows the predicate like an object. The internal structure of the complement clause resembles that of a declarative clause. Since both verbs in the main clause and complement clause are fully inflected and no complementiser is present, this can also be called a ‘paratactic complement clause’ (Noonan 2007: 61, 65, 87, 116). These constructions do not differ from clause coordination syntactically, but semantically, the two clauses are more closely related. In the following examples, the complement clause is indicated by square brackets.

Deeləmə

- (979) *ná-tú-ám*
1SG-tell-FV.2SG.OBJ

[nə-zámó mʰ=nà yàtədə]
[1SG.FUT-come.FV 2SG.OBJ=CF tomorrow]
‘I tell you I will come to you tomorrow’

- (980) *nə-dáw má-m-à [à-ɲəm]*
1SG-put water-M.9-REF [9-boil]
‘I made the water boil’

Gvɣvma

- (981) *ná-dáw=i [à-tám]*
1SG-put=3SG.OBJ [3SG-cry]
‘I made him/her cry’

- (982) *ná-dáw má-m-á=è [à-cwàtín]*
1SG-put water-M.9-REF=DEF [9-boil]
‘I made the water boil’

Gwaandama

- (983) *ná-ɲirá [bə-wàkà]*
1SG-want.FV [3PL-wash]
‘I want that they wash’ [S-N2]

- (984) *ná-jirá* [*ná-jwá* *làmtà-w-à*]
 1SG.IMP-want.FV [1SG.IMP-buy.FV bag-W-REF]
 ‘I want to buy a bag’ (Hiraki 1986: 119), [S-N1]

Complement clauses are frequently introduced with the complementiser *bá*, which can be translated as ‘that’, ‘in order to’ or ‘with the intention to’, following a verb such as ‘to want’, ‘to think’ or ‘to say’. The complement clause itself maintains the structure of a declarative clause.

Deeləmə

- (985) *í* *à-fəm-dá*
 when 3SG-know-RLT

[*bá* *sír-l-á* *bá*³⁹⁹-*hà-n* *támà-l=nà*]
 [COMPL honey-L-REF 3PL-COP-N sweet-L=CF]
 ‘when he knew that honey is sweet...’

Gyyoma

- (986) *n-sím-á*
 3SG.SR-know-FV

[*bá* *má-m* *sír-má=è* *Ø-hà* *támà-mà*]
 [COMPL water-M.9 bee-9-DEF Ø-COP sweet-9]
 ‘after knowing that the honey is sweet...’

- (987) *a-daw=ɪ* [*bá* *n-za* *kasv-ra*]
 3SG-put=3SG.OBJ [COMPL 3SG.SR-go market-PP.on]
 ‘s/he made him/her go to the market’ (Newman 1976: 53)

Gwaandama

- (988) *à-jirá* [*bà* *nà-búrsà*]
 3SG-want [COMPL 1SG-cultivate]
 ‘s/he wants that I cultivate’ [S-N2]

- (989) *à-jirá* [*bà* *kà-búrsà*]
 3SG-want [COMPL 1PL.INCL-cultivate]
 ‘s/he wants that we cultivate’ [S-N2]

In Gwaandama, another complementiser, namely *à*, is sometimes inserted. Its occurrence tends to be determined by the pronoun used in the complement clause: While *à* appears before 3SG and 3PL agreement markers (examples (990) to (992)), *bá* occurs in all other cases (examples (988) and (989)).

Gwaandama

- (990) *ná-tsím=àmá* [*à* *bà-ná=ɲí* *làmtà-w-à*]
 1SG-know=CPL COMPL 3PL-give.FV=1SG.OBJ bag-W-REF
 ‘I have known that they will give me a bag’ (Sabe 1995: 186)

³⁹⁹ A zero morpheme is expected here (cf. §7.3.2.1).

(991) *ná-jìrá* [*à*] *bà-bùrsà*
 1SG-want COMPL 3PL-cultivate
 ‘I want that they cultivate’ [S-N2]

(992) *ná-jìrá* [*à*] *n-bùrsà*
 1SG-want COMPL 3SG-cultivate
 ‘I want that s/he cultivates’ [S-N2]

Reported speech and thought, whether direct or indirect, are always introduced with the complementiser *bá*⁴⁰⁰. It follows a verb or verbal phrase (often with verbs like ‘to say’, ‘to tell’, ‘to ask’, ‘to answer’, etc.) (examples (993), (995) and (996)), a subject noun or pronoun (examples (997) and (998)) or stands on its own (example (994)).

Deeləmə

(993) *kwà-y* *má-w-á* *ná=á-tù* *bá*
 owner-Y farm-W-REF PROG=1SG-say 3PL.OBJ

bá *hà* *gá=n* *fil-há*
 COMPL COP NEG=COM calabash-HA.DEF

yé *né=gà*
 3SG.POSS COM=NEG
 ‘the owner of the farm was telling them that he doesn’t have calabashes with him’

(994) *bá* *í* *mà-zó* *fil-y-à=nà*
 COMPL when 2SG-do.FV some-Y-REF=CF

mà-zó *fákú-l* *là-mò*
 2SG-do.FV head-L 2SG.POSS
 ‘[they] say: “anything you do to someone you do to yourself”’

Guyuma

(995) *júá-w-á=ò* *á-zìr* *náltáká-l-á=ò*
 dog-W-REF-DEF 3SG-refuse prayer-L-REF=DEF

á-tù=i *bá*
 3SG-say=3SG.OBJ COMPL

nì-á=ò *á-mwóm-dír=ì=ga*
 thing-A=DEF 3SG-concern-RLT=3SG.OBJ=NEG
 ‘the dog refused to pray, saying that it did not concern him’

⁴⁰⁰ Güldemann’s (2008) detailed study on quotative indexes includes a comparison of complement clauses with reported speech clauses (cf. Idiatov (2011)). The marker that introduces reported speech in Nungvuma is identical in form to that of the complementiser in complement clauses, but since it is not the focus of this thesis, it is subsumed in this chapter and not analysed any further.

- (996) *a-zwe=ĩ* *bi* *nà-zã* *yi*
 3SG-ask=3SG.OBJ COMPL 2SG-go.FV where
 ‘s/he asked him/her: “where are you going?”’ (B. Newman 1978: 60)

Gwaandama

- (997) *á* *bá*
 ʔ⁴⁰¹ COMPL
- òhòh* *nà-bí-bì* *mà-kùrú=nà*
 ohoh NUM-2-how.many 2SG-return=CF
 ‘s/he asked: “ohoh, when did you return?”’ [B-N1]

- (998) *bã-l-ə* *bə* *a-m=na* *ha* *karkar*
 leopard-L-REF COMPL 6-DEM=CF COP good
 ‘the leopard said: “this is good”’ (Sabe 2014: 51)

The complementiser *bá* is also used to introduce proper names, particularly after the verb *àr* ‘to call someone’:

Deeləmə

- (999) *bá-àr-à=ú* *bá* *Ànúhù*
 3PL-call.FV=1SG.OBJ COMPL Anuhu
 ‘my name is Anuhu’ (lit. they call me Anuhu)

Gvyoma

- (1000) *zín-dé* *ní-l* *bá* *Frama*
 name-L.5 1SG.POSS-5 COMPL Frama
 ‘my name is Frama’

Gwaandama

- (1001) *Piságìn* *nán-àr=ì* *bá* *mwári-y*
 Pisagin PROG.1SG-call=3SG.OBJ COMPL older.brother-Y
 ‘Pisagin was calling him older brother’ [B-N1]
- (1002) *yàǎkí* *Lìn-w-ə* *nà=bà-àr=bà* *bá* *Dáswí-ká*
 now Lín-W-REF PROG=3PL-call=3PL.OBJ COMPL Dəswi-KA
 ‘Now Linwə (maternal kinship group) were calling them “Dəswikə”⁴⁰²’ [B-N1]
- (1003) *Dumeke* *àr* *dzwí-y-é* *bá* *Halima*
 Dumeke call child-Y-REF COMPL Halima
 ‘Dumeke named the child Halima’ (Sabe 1995: 183)

⁴⁰¹ It can be reasonably inferred that this refers to the third person singular. However, it does not exhibit the typical shape of a subject pronoun nor can it be seen as an agreement marker without a verb to which it can be attached. A few instances of such a construction can be observed in the data, which may indicate that *á bá* is a fixed expression.

⁴⁰² Its literal meaning is ‘black dress’.

- (1007) *[zəndəbi* *a-wvna* *bə*
 [because 3SG-think COMPL

ba-war *zwamwã-y-a* *di]*
 3PL-marry daughter-Y-REF if]
 ‘because he thought that if they married his daughter...’ (Newman 1976: 42)

Gwaandama

- (1008) *bá* *bá-tsúr* *ná*
 3PL.SUBJ? 3PL-stay here

[há *cíbkìn-w-ə=ù* *dzì-yú-r=ú]*
 [until separation-W-REF=DEF go-?-RLT=VEN]
 ‘they stay here until the separation came about’ [B-N1]
- (1009) *kwàntsá-b* *b-á* *bə-dà* *kwàntsá-tá*
 chief-B.2 2-REL 3PL-eat chieftaincy-TA

á *Gwà:ndà* *ná* *[tún* *cíngárá]*
 SPAT Gwaanda here [since beginning]
 ‘[can you list in their order of descentance] the chiefs that have ruled
 Gwaanda since the beginning’ [B-N1]
- (1010) *bá-yí-r=ú* *yà* *wándà*
 3PL-leave-RLT=VEN place.A Wanda

[yíká *bá-dzì-r=ú* *ná=nà]*
 [before 3PL-go-RLT=VEN here=CF]
 ‘they left Wanda before they came here’ [B-N1]

7.4.4.3 Conditional clauses

Conditional clauses are subordinate clauses that express “some condition, the truth of which is not asserted, under which another (main) clause [...] holds” (Nicolle 2017: 1). The subordinate clause is also known as ‘protasis or ‘if clause’, while the main clause is referred to as ‘apodosis’ or ‘then clause’ (Thompson et al. 2007: 255, Nicolle 2017: 1).

In Nvngvrama, conditional clauses typically precede the main clauses and are distinguished from all other adverbial clauses by their clause-final subordinating conjunction. In Deeləmə, the clitic =*dá* attaches to the last lexeme of the clause and changes its vowel based on the ATR vowel harmony of that lexeme. In Gvyyvma and Gwaandama, the conjunction *rì ~ dì* is used in free variation and is freestanding since it is not subject to vowel harmony. Newman and Newman (1974: 111) report “a sharp falling pitch on the final syllable of the clause”, which they describe as a “falling tone” in another article (Newman/Newman 1977b: 7). As falling tones in Nvngvrama only occur as intonational features or in portmanteau morphemes (cf. §2.2) and the conjunction *rì ~ dì* is a simple morpheme, it is marked with a low tone and not a contour tone. In addition

to the falling intonation, a small pause occurs between the two clauses, clearly separating them.

The subordinating clauses are enclosed in square brackets with the conjunction in bold in the following examples.

Deelɔmɔ

- (1011) [m̀d̀-*d̀aw* g̀v̀b̀a-l á lámtà-l-à li-b̀á=**d̀à**]
[2SG-put stone-L SPAT bag-L.5-REF 5-DEM1=**if**]

á-ẁd̀h̀á

3SG-break.FV

‘if you put a stone into this bag, it will break’

- (1012) [z̀b̀ó-l-y-á á-f̀d̀ bá-’á=**d̀à**]
[boy-Y-REF.DEF 3SG-get money-A.DEF=**if**]

à-swá

3SG-buy.FV

finá-’à

gift-A

ningá

give.FV

zwáyír-y-à

girl-Y-REF

‘if the boy gets the money, he will buy a gift for the girl’

Gvyvma

- (1013) [à-zì=*wá* f̀ù k̀ùm̀è-y-é=*ù* r̀ì]
[3SG-go=VEN get doctor-Y-REF=DEF **if**]
‘if he comes to get the doctor...’ (Newman/Newman 1974: 111)

- (1014) [k̀ó⁴⁰⁴ ǹà-d̀aw g̀v̀b̀a-l b̀ùlì-ỳôw d̀ì]
[even 2SG-put stone-L bag-PP.inside.DEF **if**]

sil-à

break-FV

‘even if you put a stone into this bag, it will break’

Gwaandama

- (1015) [B̀h̀óyá-y-á d̀á dzì-ká r̀ì]
[Bonhoya-Y-REF eat.FV snake-KA **if**]

b̀à.ánì

what

dzì-á

happen-FV

ỳà=ǹà

3SG.OBJ=CF

‘if a Bonhoya (kinship group member) eats a snake, what happens to him?’

[B-N1]

⁴⁰⁴ Hausa loanword (*k̀ó*). For more information on its uses in concessive conditionals in Hausa, cf. Jaggar 2001: 613f.

- (1016) *[hóyá-w dǎn=i dǐ]*
 [snake-W eat=3SG.OBJ if]
- dǐn kǎ-tǔ-á yǎ=nǎ*
 1PL.EXCL.SBJ 1PL.EXCL-bury-FV 3SG.OBJ=CF
 ‘if he is bitten (lit. eaten) by a snake, we bury him’ [B-N1]
- (1017) *[jǔn-l-à jǔ=i rǐ]*
 [hunger-L-REF pain=3SG.OBJ if]
- wùndì ǔǎ nǐd-à dú-m-ǎ á-yǔ*
 AUX eat.FV food-A.6 sleep-M-REF 6-3SG.POSS
 ‘if he feels hungry, he will eat his dinner’ (lit. if hunger pains him, he will eat his sleep food) (Sabe 1995: 261)

Gwaandama distinguishes between ‘counterfactual’ conditionals and all other conditionals, as defined by Thompson et al. (2007: 256, cf. Nicolle 2017: 5ff., footnote 6). Counterfactual conditionals refer to situations that did not or could not happen. In these cases, they are always concluded with the clause final marker. No ‘if’ conjunction is present in such clauses. Instead, the conditional clauses are introduced using the morpheme *bǎ*, which is typically used as a complementiser in a complement clause and to introduce reported speech (e.g. ‘s/he said that...’) (cf. §7.4.3). Only the data on Gwaandama has a few instances of counterfactual conditionals, found in Sabe (1995: 168, 261) and [S-N2]. No examples occur in the data of Deeləmə and Gvyuma.

Gwaandama

- (1018) *bǎ ná ní dzwǐ gǐhǐ=nǎ*
 if ? 1SG.SBJ child woman=CF
- ná-wár-á dwǐ gǐnà-yà*
 1SG.IMP-marry-FV man.Y.1 rich-1
 ‘if I were a girl, I would marry a rich man’ (Sabe 1995: 261)
- (1019) *bǎ ná=mǎ-dzǔ=ámá dzilá=nǎ*
 if PROG=2SG-go.VEN=CPL yesterday=CF
- ná=nǎ-bǔrsǎmǎ*
 PROG=1SG-cultivate.CPL
 ‘if you had come yesterday, I would have cultivated’ [S-N2]

Negative conditionals only occur in the Gvyuma data. These conditionals are distinct from other conditionals in that they follow the main clause and are marked by the conjunction *dub* ‘unless’, in addition to the clause-final subordinating conjunction ‘if’ (cf. Thompson et al. 2007: 260f.).

Gvyvma

- (1020) *ha=ga* *na-e=m* *murě* *ya=ga*
 COP=NEG 1SG-leave=2SG.OBJ leave place=NEG
- [dub* *na-dawa-v* *siwũwe-l* *di]*
 [unless 2SG-put-VEN blessing-L if]
 ‘I will not let you go, unless you bless me’ (Gen 32, 26) (Wycliffe Bible Translators n.d.)
- (1021) *ha=ga* *yi-r* *ĩ* *dwã*
 COP=NEG man-R.1 1.REL see.IMP
- dara-w-a* *Yamba-wv=ga*
 kingdom-W.3-REF God-3.DEF=NEG
- [dub* *ĩ* *ba-madı* *ba-wii* *di]*
 [unless 1.REL 3PL-repeat 3PL-be.born if]
 ‘no man can see the kingdom of God, unless they are born again’ (Gen 32, 26) (Wycliffe Bible Translators n.d.)

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