

A Grammar of Miya

Russell G. Schuh

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Preface

What is an optimal descriptive grammar? Ideally, it should state and illustrate every generalization and idiosyncrasy of every structure that exists in the language being described. This ideal has never been fully met in even the best grammars of the best-described languages, nor will it ever be—language is too vast and complex and life is too short. This should not deter the compiler of a descriptive grammar from trying to come as close to the ideal as available data and time permit. But even a grammar that attained the ideal in descriptive thoroughness would be of little value if the description could not be interpreted by all its potential users. The grammar should thus be organized in such a fashion and the description couched in such terminology that anyone with basic training in any tradition of linguistic theory and description could find the structures of interest and learn how they work without going beyond the description provided in the grammar itself. The grammar should be equally useful to the European structuralist working in the tradition of André Martinet or the American formal theorist working in the tradition of Noam Chomsky, to the semiotician concerned with the interrelations of signs or the typologist interested in cross-linguistic patterns, to the language area specialist or the general linguist. Finally, the grammar should be as comprehensible and valid in 100 years as it is today (which is not to say that the grammar might not be emended and expanded to incorporate facts unavailable to the compiler).

My immodest goal has been to write the most thorough descriptive grammar of Miya possible based on the data I was able to collect during several weeks of elicitation work in Nigeria during 1982-83. Throughout the process of writing this book, I have continually kept in mind the objectives stated in the previous paragraph—only you can say whether I have come close. I have had two paramount models, viz. R. C. Abraham's *The Language of the Hausa People* (1959) and Randolph Quirk et al.'s *Comprehensive Grammar of the English Language* (1985). Abraham's Hausa grammar is, by most of the criteria set forth above, hardly an archetype of good descriptive work. In particular, about 100 of the total 236 pages of the book are in a section called "Part II, More Advanced Grammar". This section is a random collection of snippets about Hausa vaguely related to sections in the more organized "Part I, Basic Grammar". Yet for those of us who have studied Hausa over a long period, "Part II" is the more interesting part of the grammar. Abraham had an incredible nose for interesting bits of data which he felt were worth putting down in writing somewhere, but he either did not know how to fit them coherently into a larger framework or did not have the time or energy to do so. In working on Miya, especially the natural texts, I have tried to let no tidbit that struck me as "interesting" get by without being incorporated somewhere in this grammar, in a context in which its inclusion makes sense. The result may be a grammar which seems rococo to the non-specialist, but the big picture should still be present, and as the ranks of Miya language specialists swell, they will thank me for not skipping over the details. Quirk et al.'s grammar has been a less direct influence on my thinking, but I view this as a model descriptive grammar, meeting essentially all the

criteria mentioned in the first paragraph above. Were the data, time, and grit available, I would like this Miya grammar, or any other grammar I might write, to look like that grammar of English.

The present grammar is the result of about 11 months study of Miya, comprising several multi-day sessions of informant work with data analysis in interim periods, during Academic Year 1982-83 when I was a visiting professor in the Department of Nigerian and African Languages at Ahmadu Bello University (ABU) in Zaria, Nigeria. During breaks in the university teaching calendar, I made four field trips to Miya town, and during one period, I had a Miya speaker stay with me in Zaria. I was also able to fill in a few gaps during a brief visit to Miya in 1996. Details of the fieldwork can be found in 1:§3. Field expenses were met by a grant from the Wenner-Gren Foundation for Anthropological Research.

The Miya language first came to my attention in 1973, through work by Neil Skinner, to whom this book is dedicated. Neil and Margaret "Meg" Skinner were staying in Ningi, where Meg was doing doctoral research on Pa'a, a language in the North Bauchi subgroup of Chadic, to which Miya also belongs. Neil was collecting word lists, pronoun paradigms, and texts from the nine North Bauchi languages which are still spoken. During this time, my wife, Maxine, and I were living in Gashua, where I was working as a senior research fellow attached to the Centre for the Study of Nigerian Languages, then a research unit of ABU (now part of Bayero University, Kano). Maxine and I visited the Skinners in Ningi, and in my own first visit to Miya country, we drove to Miya town, where Neil wanted to do some informant work. When I decided to return to Nigeria for a year as a visiting professor at ABU, I asked Neil which of the North Bauchi languages might present the most favorable fieldwork possibilities. He unhesitatingly recommended Miya, a recommendation which proved to be absolutely on the mark.

I collected and analyzed Miya data during 1982-83 while working at ABU, but because of teaching and other work, I was not able to write any connected prose about the language. On returning to UCLA in the fall of 1983, I again had teaching and departmental commitments which prevented any concentrated work on Miya. However, I continued to tinker with the data during vacation periods and spare moments. From March to December of 1987, I was on sabbatical leave "in residence" (which involves teaching one class, with no other commitments), and during this period I worked intensively on Miya. By the end of the leave period, I had written a nearly complete draft grammar, but it was far from being in publishable shape, and once I returned to full-time teaching, I was no longer able to devote much time to it. In January 1989, I became chair of the UCLA Linguistics Department, and for the next 5 years I did nothing but administration and teaching. In 1993, I retired from the chairship, and during the academic year 1994/95 I was on sabbatical leave, during which my top priority project was to complete the Miya grammar begun so many years before. I used the draft I wrote in 1987 as a basis for the present grammar, but this is a much expanded and revised version.

Although producing this grammar has been mainly a private project aside from the actual fieldwork, a number of people have influenced its creation in one way or another. I must first mention Paul Newman, who has been my mentor and colleague since 1969, when he first hired me as a research assistant to do field research on Ngizim as part of his NSF sponsored Comparative Chadic Syntax Project in northeastern Nigeria. I am not sure whether I learned from him what linguistic research should be about or whether I knew in

my heart what it should be about and the fact that we shared the same convictions gave me the audacity to stick to it. Whichever is the case, he and I share a passion for basic descriptive work, even though the field in general has made theory the jewel in the crown of linguistic research, and the phrase "descriptive work" invariably includes the modifier "just". A different type of acknowledgment goes to Neil Skinner. As I noted above, it was Neil who pointed me toward Miya, and in a sense, he is therefore the progenitor of this project, hence the dedication to him. I suspect that Neil would have preferred to see a Miya dictionary with his name on the dedication page, and I am working on one, but considering how long it has taken me to finish this grammar, he might not want to wait that long! Neil was extraordinarily generous in giving me all his field materials from his work on the North Bauchi languages. I regret that I have not yet been able to give these materials the attention they deserve. Finally, unrelated to the Miya project, Neil has been a kindred spirit in his interest in Hausa poetry, an area of research where he has exerted a strong influence on my thinking.

Obviously, production of a Miya grammar would have been impossible without the cooperation of the Miya people. Thanks to them, Miya is perhaps my favorite place in Nigeria. Yakubu Sarkin Miya, *Málvó Míy*, welcomed me and was continually helpful in facilitating my research. In addition to his willingness to let me work among his people, he narrated immensely valuable historical and ethnographic texts, which I intend eventually to publish. Very special thanks to *Vàziya Círòoma Tilde Miya*, my principal informant, who also became a good friend. He was the ideal person to work with in all respects—perceptive, patient, dependable, and indefatigable. Besides providing me with nearly all my elicited Miya data, Vaziya saw to all my arrangements in Miya town. Thanks also to Haladu Soja, in whose home I stayed during my visits to Miya, for his hospitality and friendship, and thanks to his family for putting up with a stranger in their midst (especially to Haladu's younger brother, whom I displaced from his room).

Thanks to the Wenner-Gren Foundation for Anthropological Research, whose grant covered field expenses. Thanks to Dr. Dauda Bagari, who was principal of the Bauchi Institute of Higher Education at the time I conducted the field research, and who made a car available to take me to Miya on my first visit as well as to Zaria after that visit. Thanks to Musa "Walta" Mohammed, who took me to Miya town in September 1996. And finally, thanks to my wife, Maxine, who has been a colleague in linguistic research and who has been a wonderful companion during our three extended trips to Nigeria.

Russell G. Schuh
Los Angeles
September, 1996

Cross-Referencing, Abbreviations, and Orthographic Conventions

Cross-Referencing

The grammar contains many cross-references to other relevant sections. A number in boldface followed by a colon refers to a chapter number. A number in regular type following a section mark (§) is the section within that chapter. A reference without a preceding boldfaced number refers to a section within the chapter where the reference appears.

11:§1.2 = “Chapter 11 (THE SYNTAX OF SIMPLEX CLAUSES), section 1.2 (Subjects)”

§1.2 = “section 1.2 of the current chapter”

Abbreviations

The following abbreviations are used in interlinear glossing and occasionally in the text:

- & Co. = the morpheme *níy`* meaning “and associates, and the others” (**10:§3.2.2**)
- AUX = any of several TAM-marking auxiliaries (**5:§§2.1-2**)
- Cf = verbal suffix marking the Counterfactual TAM (**5:§2.1.4**)
- CfC = conjunction *bà* marking counterfactual clauses (**14:§2.4**)
- Cn1 = conjunction *kwáa* marking temporal sequence clauses (**5:§2.2.6, 14:§2.1.1**)
- Ct = Continuative TAM marked by *àa-táa* (**5:§2.2.3.2**)
- dà* = auxiliary/subject marker used in several TAM’s (**5:§2.2.9**)
- DO = direct object
- Fip = *jíy* marking the Focused Subject Imperfective (**5:2.2.4**)
- Foc = *jíy* marking focused subject in a non-verbal clause (**12:§2.3**)
- FPf = *dá* or *da* auxiliaries in Focused Subject Perfective (**5:§2.2.2**)
- fs = feminine singular
- Ft = auxiliary marking the Conditional Future (**5:§2.2.5**)
- g(án)* = *g-/gán* “concessive” operator (**5:§2.2.3.3, 14:§§2.2-3**)
- Hrt = *ta* auxiliary marking Hortative (**5:§2.1.2**)
- ICP = Intransitive Copy Pronoun clitic reflecting subjects of most intr. verbs (**5:§4.1**)
- id = ideophone
- Imp = Imperative (**5:§2.1.1**)
- IO = indirect object
- Ipf = *àa* auxiliary used with most Imperfective verb forms (**5:§2.2.3**)
- MONOVERB = verb with only one root consonant (**4:§§1.2.3.4-5**)

- ms = masculine singular
 NEG = both members of the paired negative markers *má ... úw, tá ... úw* (5:§§3.1-4)
 Pf = Perfective (5:§2.1.3)
 pl = plural
 pln = pleonastic *aa* (11:§1.1.3)
 plurac = pluractional verb form (7:§3)
 POLYVERB = verb with two or more root consonants (4:§§1.2.3.1-3)
 PRM = *ká/kèn* Previous Reference Markers (9:§2, 10:§2.1)
 Prt = "Particle", various particles of uncertain function, esp. *bíy* (5:§2.2.8)
 PS = postposed subject marker (*àà'*) (11:§1.2.1)
 Q = question marker *à* affixed to the end of all questions (12:§§1, 2.1.1)
 Qt = *díw/áanduw* marker or direct or indirect quotations (13:§6)
 sg = singular
 Sjn = *dà* as auxiliary marking Subjunctive clauses (5:§2.2.1)
 sp. = "species" in glosses of words where a specific English word is not known
 TAM = "Tense, Aspect, Mood", i.e. any one of the verbal parameters in Chapter 5
 Top = *ká* and other markers used to set off topicalized phrases (9:§2.1.2, 12:§5)
 Tot = either member of the discontinuous Totality construction *súw ... -áy* (7:§2)

Orthographic Conventions

Consonants

The consonant symbols used to transcribe Miya in this grammar are those that might be used in a practical orthography. Digraphs and symbols not in the Roman alphabet have precedents in the orthographies of one or more Nigerian languages. See the table in 2:§1.1 for a complete list of consonants. Note especially the following:

- l* = [ɬ], i.e. voiceless lateral fricative
dl = [ɮ], i.e. voiced lateral fricative
c = [ç], i.e. voiceless alveopalatal affricate
j = [j], i.e. voiced alveopalatal affricate
sh = [ʃ], i.e. voiceless alveopalatal fricative
zh = [ʒ], i.e. voiced alveopalatal fricative
gh = [ɣ], i.e. voiced velar fricative or voiced laryngeal (see 2:§1.1.2)
 ' = [ʔ], i.e. glottal stop
mb, nd, ndz, ng, ngw, nz = prenasalized unit phonemes (other NC are sequences)
kw, gw, ngw = labialized unit phonemes

Vowels

Orthographic vowels, especially the short high vowels, are in a subphonemic transcription meant to give a fair representation of pronunciation while still permitting an understanding of the phonemic structure. There are only two contrastive short vowels, /a/ and /ə/ (2:§2.1). However, /ə/ in particular has variable pronunciation depending on context (2:§2.2.1). The following conventions apply to vowels:

- VV = long vowel
 orthographic *i, u, ə* = /ə/
 orthographic *ə* = [i], i.e. high, central, unrounded vowel
e = palatalized /a/ (2:§§2.2, 4)
ɣɣ = mid, back, unrounded vowel < /aghəm/ (2:§1.2.2)

Tones

There are only two tones, H (´) and L (˘). A tone mark over a vowel represents the first syllable pronounced at a particular pitch, i.e. any unmarked syllables following a syllable with a tone mark are pronounced on the same pitch. A H (´) following a tone marked domain is pronounced as a downstepped H. The following examples illustrate the convention. See 3:§1.2 for further discussion.

<i>átlakwam</i>	'spear'
[- - -]	
<i>tàbabaw</i>	'bark'
[- - -]	
<i>kàkənsá</i>	'puff adder'
[- - -]	
<i>dèrwéti</i>	'leopard'
[- - -]	
<i>tyúwlaalín</i>	'cattle egret'
[- - -]	
<i>shínákə</i>	'tongue'
[- - -]	
<i>tàtsiya mbáda kəvən</i>	'the tendon of the thigh of the buffalo'
[- - - - -]	
<i>tákən mbáda mádə nuwun</i>	'this thigh of my goat'
[- - - - -]	

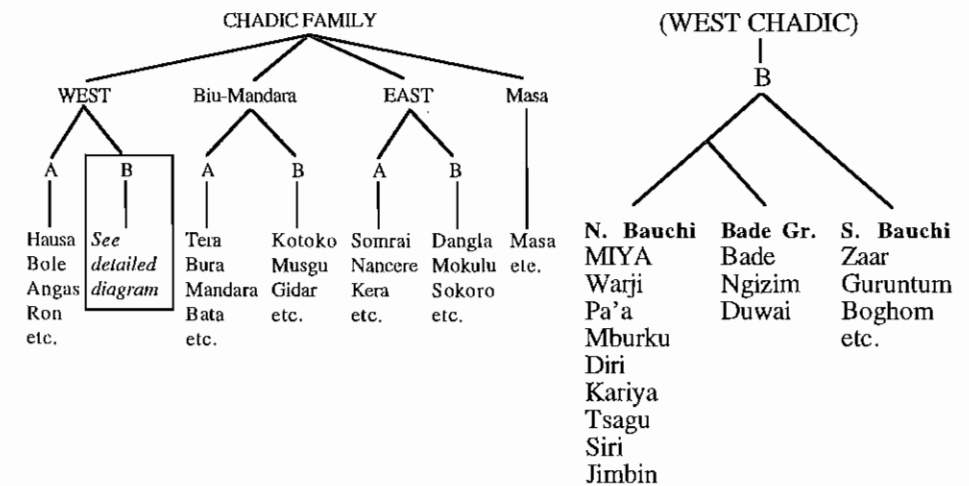
Chapter 1

THE MIYA PEOPLE AND LANGUAGE

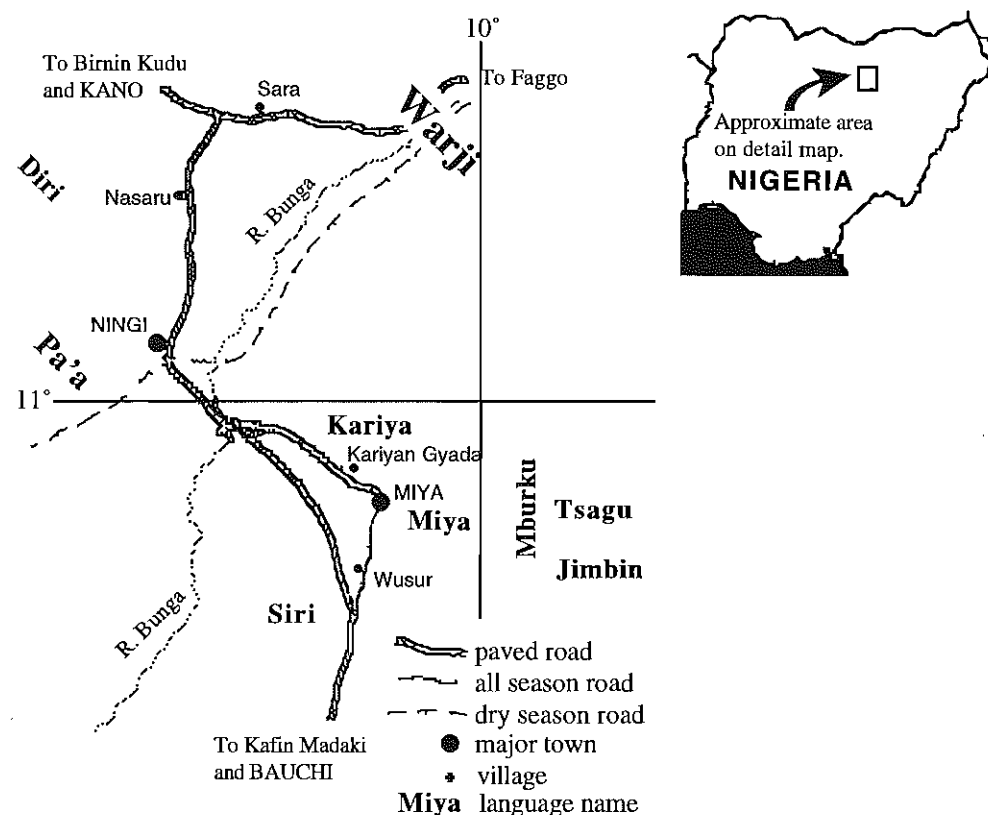
1. Classification, Location, and Cultural Notes

Miya is a member of the Chadic language family. More precisely, in the classification of Newman (1977), it belongs to the "North Bauchi" Group of the B-Subbranch of West Chadic; in the classification of Jungraithmayr and Ibrizimow (1994) it is in the Northern Bauchi Group of the Bauehi-Bade Sub-branch of the West Chadic Branch. Within the North Bauchi Group, there are eight known languages in addition to Miya. These are most fully documented and described in Skinner (1977). Neither I nor anyone else, to my knowledge, has made a careful study of subgrouping among the North Bauchi languages. Skinner (1977:6) suggests a particularly close relationship between Warji and Kariya (44% cognation in his word lists). My impression, based on Warji data in Newman (n.d.) and a small amount of fieldwork that I did on Kariya, is that Miya is quite closely related to these languages, and only more distantly related to Pa'a, for which Skinner (1979) provides grammatical data.

Position of Miya within Chadic (after Newman 1977)



Miya is spoken in the town of Miya (*Miya*) and in a few nearby farming hamlets in Bauchi State, Nigeria, approximately 70 miles (110 km) north of Bauchi.



The people refer to their language as *vəna miy* ‘‘mouth of miy’’.¹ A Miya man is *miy dzəhə*, a Miya woman is *miy dzaku*, and Miya people are *mèemeeniy*. According to Skinner (1977:2), there are approximately 5,000 speakers of Miya. The only other population figure for the Miya that I am aware of is Temple (1965:276), who says, ‘‘The Miawa inhabit Bauchi Emirate with a population of 1,610.’’ This figure is from colonial records in 1919 and is certainly lower than the present population. Skinner does not give the source for his population estimate, and I have no recent census data myself, but observations from my visits to Miya town suggest that Skinner’s figure is realistic.

Miya town is located some distance from the main paved road which now connects Bauchi to Ningi and other points north, but the town is bisected by what was at one time the main road. This road rather sharply demarcates an ethnic division in the town. On the east side of the road lies what one might refer to as ‘‘Old Miya’’. Old Miya is dominated by two granite inselbergs called Mangila and Gituwa, named after the two traditional founders of Miya. In precolonial times, when agrarian minority peoples were subject to slave-raiding, the Miya people lived atop these inselbergs in order to stave off raiders, but today

¹The independent pronoun meaning ‘we, us’ is *miy*, suggesting the source of the Miyas’ autonym. If this suggestion is correct, the connection is only historical. *Vəna miy* could not be literally translated ‘our language’ because the 1st plural possessive clitic is *-ma*. ‘Our language’ would be *vənaa-ma*. Likewise the plural for Miya people, *mèemeeniy*, is not related in any obvious way to *miy* ‘us’.

the village is nestled between the two. On the west side of the road is ‘‘New Miya’’, the area of town inhabited by non-Miya people, primarily Hausas.

The inhabitants of the two parts of town live in apparent harmony, but they are culturally quite distinct. Even the appearance of the architecture differentiates the two parts of town. In New Miya, the buildings are mainly square, mud brick houses within high brick compound walls of the type that dominate any Muslim town of the West African savanna. In Old Miya, the primary dwelling type is a round hut with thatched roof. The compound walls tend to be built of stones and/or potsherds and mortar and often are not high enough to prevent a tallish person from seeing in. The most impressive structures are the granaries. These are cylindrical mud structures, some probably as much as ten or twelve feet high and six to eight feet in diameter. Many have bas-reliefs depicting masks or human-like figures, a certain indicator that one is not in a typical northern Nigerian Muslim village. The Miyas are known in the area to be expert farmers and are able to store enough grain in these large granaries both for their own use and for sale.

While the non-Miya people of New Miya are mainly Muslims, the Miya inhabitants of Old Miya continue aggressively to practice their traditional religion and hold to their traditional festivals and other practices. I did meet some Miya men who had converted to Islam (Haladu Soja, my host during my stays in Miya, for example, had been in the Nigerian army and had converted, probably in part as a result of living away from Miya), but I also heard Miya men complain about the fact that Miya girls were marrying Hausa men and becoming Muslims.

The language of New Miya is Hausa. Although all Miyas that I met spoke fluent Hausa, the Miya language was without question the primary means of communication among ethnic Miyas. Nonetheless, Hausa is having a strong influence, as evidenced by the large number of Hausa borrowings in Miya, and Hausa is the lingua franca, not only between native Hausa speakers and Miyas, but between Miyas and speakers of other local languages. I encountered an interesting example of the latter during a visit to Miya town, when I was fortunate enough to be present at a traditional festival. This festival included *dlèrambə* ‘masquerader(s)’, Hausa *dòdoo*,² and although their exact identities were not known, part of the traditional practice is that *dòdoo* for Miya festivals come from non-Miya villages in the area, such as the Siri-speaking village, Wusur. On one occasion, a *dòdoo* danced and declaimed praises at the entrance of the court of *Málvə Míy* (Chief of Miya). The praises were all in Hausa, which would have been the native language of neither the *Málvə Míy* nor the *dòdoo*. Similarly, I recorded a group of women singing traditional songs. Of the 13 songs I recorded, 4 were in Hausa. Still, in 1982-83, when I conducted the field research reported here, there was no evidence that Miya was a moribund language, despite the relatively small number of speakers and the overwhelming dominance of Hausa outside the confines of Miya town.

I did no systematic research into Miya history and culture, but I did collect historical and cultural texts, and I made four visits to Miya town, three of which lasted for about a

²*Dòdoo* is the Hausa term used to translate Miya *dlèrambə*. I prefer to use the Hausa term rather than ‘masquerader’ as a translation for *dlèrambə* because, to me, ‘masquerader’ suggests someone dressing up in a costume for an event such as Hallowe’en or Mardi Gras. The Miya concept of the *dlèrambə* is more than this. Though a *dlèrambə* is known, rationally, to be a human being in costume, the *dlèrambə* himself is not human and is endowed with powers, behaviors, and rights not available to humans. I use *dòdoo* throughout this grammar to translate Miya *dlèrambə*.

week each. During one of those visits, the town was fully involved in the multi-day traditional masquerade festival mentioned above, called *Zàbaka Dleramba* 'Dancing of the *Dòodoò*'. I was informed that this festival took place only every four years or so. The Miyas were very receptive to my presence at these events, even encouraging me to take pictures and make audio recordings of every aspect of the festivities.

One of the historical texts I collected is an extended oral narrative by the Chief of Miya, *Yàakubù Sarkin Miyà* (in Hausa), *Málvá Ròoya* (in Miya). At the time I was there, he had reigned for over 43 years. In this history he relates a tradition according to which the present location of Miya was settled by two men, Mangila and Gituwa, after whom the two inselbergs which frame present-day Miya town are named. After these men and their followers had lived at their respective settlements for some time, the need to recognize an authority to resolve disputes and the like arose. Mangila and Gituwa each argued that he had been the first to arrive at the location and hence should be selected. It was decided that the argument could be resolved by the size of the respective communal trash heaps. It turned out that Gituwa's was the larger because his followers had the habit of dumping their trash at a single location whereas Mangila's followers tended to dump theirs wherever was convenient. Gituwa was therefore named to the title *Sarkin Duutsèe* (< Hausa 'Chief of the Rock'). *Sarkin Duutsèe* was not a village or area chief per se but rather an authority to whom the people could appeal for resolution of disputes, decisions on auspicious times for various rites, etc. *Sarkin Duutsèe* remains a traditional title in Miya to this day. The first real chief, with lines of authority to organize village activity, etc., was not chosen until the period of Usman ibn Hodiyo's jihad just after the beginning of the 19th century, when depredation by raiders from outside became a problem. The chief list from that time until 1983 is as follows:

Másangá
Táshay
Bègaw
Táshay (bis)
Bègaw (bis)
Kàrsha
Jòojim
Lùuga
Ròoya

I do not have dates for the time of the founding of Miya or for any of these chiefs other than Rooya, who would have been turbaned in September 1939, calculating back 43 years and 8 months from the time he narrated this history (April 8, 1983).³ I hope eventually to make the full text and translation of this history, as well as the other texts, available.

³I visited Miya town briefly in September 1996 (see §3) and was pleased to find that *Málvá Ròoya* was still the reigning Miya ruler.

2. Previous Work

The following summary, in the form of an annotated bibliography, is a complete list of all previous work that I am aware of on the Miya language or people aside from inclusion in lists in various comparative linguistic or ethnographic works.

Temple (1965): O. Temple, *Notes on the Tribes, Provinces, Emirates and States of the Northern Provinces of Nigeria*, 2nd ed. London: Frank Cass.

Temple's entry on the Miya (p. 276) consists of the brief and rather uninformative remark quoted in §1 above, viz. "The Miawa inhabit Bauchi Emirate with a population of 1,610."

Kraft (1981): Charles H. Kraft, *Chadic Word Lists, Volume 1*. Marburger Studien zur Afrika- und Asienkunde, Serie A: Afrika Band 23. Ed. H. Jungraithmayr. Berlin: Dietrich Reimer.

Kraft's data comprise a word list of about 400 Miya words (the elicitation list has 435 items, but around 30 are blank in the Miya list). This list has had considerable value as a tool for comparative work and was the only data available on Miya until the appearance of Skinner (1977). However, it is of limited use as a descriptive work on Miya. The transcription of the vowels in particular does not permit an understanding of the vowel system, and absence of any morphological analysis, esp. in verbal entries, obscures certain facts. For example, all the verbs were elicited with the Hausa equivalent of 'he X-ed'. For nearly all intransitive verbs, the Miya renderings have the third masculine singular Intransitive Pronoun (ICP) clitic, *-ta*. This generalization would emerge if one were to look systematically at all the intransitive verbs, but looking at items individually, one would arrive at both wrong descriptive and wrong comparative conclusions. For example, the entry for 'he died' is transcribed as *a miytá*, which looks as if it shares the reconstructable Chadic root consonants **m-t-* (cf. Hausa *ya mutu*). However, the *-t-* here is the consonant of the ICP just mentioned. The root for 'die' is *miy*, with the *y* having come from a **t* by a sound change which regularly affected non-initial coronal stops in a number of the North Bauchi languages (cf. Kariya *miya* 'die').

Skinner (1977): A. Neil Skinner, "North Bauchi Chadic languages: Common roots." *Afroasiatic Linguistics* 4(1):1-49.

With 650 entries, this work remains the largest and most reliable source of lexical data on Miya and all other North Bauchi languages other than Pa'a (cf. Skinner, 1979). In fact, it is the only source of lexical data for any North Bauchi languages other than these two. As a descriptive document on Miya, Skinner's transcriptions are quite reliable, with the proviso that the vowel system is somewhat underanalyzed and tone is not marked. Skinner has isolated the verb roots and has made other relevant morphological segmentations. This publication has immense value as a comparative work, of course, and it will probably remain unsurpassed because it is unlikely that anyone will ever again be able to do fieldwork as extensive as Skinner's in this area.

Schuh (1989a): Russell G. Schuh, "Gender and number in Miya." In *Current Progress in Chadic Linguistics*, ed. Zygmunt Frajzyngier, 171-181. Amsterdam: John Benjamins.

This paper describes Miya gender and number morphology and agreement patterns. This includes affixal morphology on nouns and their attributive modifiers as well as pronominal agreement. Of particular interest is the fact that with [-animate] nouns, agreement is always with (singular) lexical gender regardless of morphological number marking on the noun itself. The descriptive facts presented in the paper can be found in 8:§§2.2-3, esp. §2.3.3, of this grammar.

Schuh (1989b): Russell G. Schuh, "Long vowels and diphthongs in Miya and Hausa." In *Current Approaches to African Linguistics (Vol. 5)*, ed. Paul Newman and Robert Botne, 35-43. Dordrecht: Foris Publications.

This paper argues that the second mora of Miya long high vowels [i:] and [u:] as well as the offglides of the diphthongs [ai] and [au] should all be analyzed as the semivowels /y/ and /w/ respectively rather than as vocalic length or vocalic glides. The basis for the argument is that these moras always act as if they were syllable final consonants in relevant environments rather than as part of the vocalic nucleus of the syllable. The Miya facts contrast with Hausa, where the corresponding moras act as part of the vocalic nucleus. The Miya data used in this paper can be found in 2:§§2.2.2-3 of this grammar.

Schuh (1996): Russell G. Schuh, "Miya as a West Chadic language with V...S word order." In *Von Aegypten zum Tschadsee. Eine linguistische Reise durch Afrika. Festschrift fuer Herrmann Jungraithmayr zum 65. Geburtstag*, ed. D. Ibrizimow, R. Leger, and U. Siebert. Frankfurt.

This paper shows that although Miya independent clauses typically have SVX order, VXS order is possible and may well be the most "neutral" order. Moreover, VXS order is the only possible order in large classes of clauses. The conclusion is that Miya is to be counted among the rare languages in the world with basic VXS order (VSX being the only relatively common order for languages with postverbal subjects). The paper speculates about the evolution of word order in West Chadic and the reconstructed basic order for proto-Chadic. The Miya facts are laid out in 11:§§1.1.1, 1.2 of this grammar.

Townsend (1976): Leslie Townsend, "Miyanci narrative." *Ba Shiru* 7(1):47-52.

The narrative mentioned in the title is a folktale told on tape to Neil Skinner in 1974 by the late Banapo, a Miya farmer and son of Sarkin Miya. Banapo transcribed the recording and provided a Hausa translation. Townsend presents Banapo's transcription and Hausa translation along with a translation in English. There are no comments or notes. The text does not mark tone or vowel length. I used the recording and Banapo's transcription to retranscribe the text, following the transcription conventions in this grammar. This text is listed at the end of the next section as *Mámmàn 'anda Lábe*.

With only six published linguistic documents, two of which are purely lexical and one a text without commentary, Miya is obviously virgin research territory. This alone justifies the publication of an extended descriptive work on the language. Such a work has additional importance because of the lack of information on Miya's close linguistic relatives. Aside from the word lists in Skinner (1977) the only extended work on any of the North Bauchi languages is Meg Skinner's Pa'a grammar (Skinner 1979), and the only other descriptive works of any kind known to me are Jungraithmayr (1966/67), with short word lists and paradigms for Pa'a and Warji, and Newman (n.d.), with morphological information for Warji.

3. The Present Study

The present study is based almost entirely on 5-6 weeks of direct informant work spread over about 11 months, beginning in September 1982 and ending in July 1983. My first visit to Miya town was on September 8, 1982, during which I introduced myself to *Málvá Míy*, explained my purpose, and requested the help of one or more people considered "good" speakers of Miya. *Málvá Míy* enlisted *Váziya Círòoma Tilde Miya*, who be-

came my principal informant throughout my work on Miya. Vaziya was 35 years old at the time and a native of Miya town. Like most Miyas, his primary livelihood was farming, but he also served as a representative of *Málvá Míy* in various local capacities. He had completed several years of primary school and spoke English reasonably well, but our main means of communication was Hausa. Fortunately, he was literate in Hausa, which allowed him to write Miya in a comprehensible way, though he had never had any formal training in writing his language. This ability proved of immense value, as will be noted below.

I spent only one day in Miya during this first visit, but it was both productive and eventful. I was shown around the town, which allowed me to see the cultural and physical differences of the two parts of town mentioned in §1. I worked with Vaziya for several hours in the morning and afternoon, during which I managed to collect several hundred vocabulary items, do preliminary analysis of verb morphology, and collect data on simple noun phrases and sentences. The "eventful" aspect of the day came about when the car in which I had come to Miya (kindly loaned to me by Dr. Dauda Bagari, Principal of the Bauchi Institute of Higher Education) became completely embedded in mud on its return from the farm where the driver had gone to find Vaziya. Despite the best efforts of about a dozen powerfully built Miya farmers, the car refused to budge and finally had to be extracted by a large skip loader from a nearby construction project.

My next visit to Miya was in early December 1982, when I spent a few days in Miya town. I had an excellent work environment in the home of Haladu Soja, a close friend of Vaziya's who had been in the Nigerian army and owned a local pharmacy. At Haladu's home, I had a quiet room to myself where Vaziya and I worked together in the mornings and afternoons. In the evenings I would go over the data collected during the day to prepare questions for the next day's fieldwork. I would then go off to the local bar to enjoy a warm Star beer and muse about the day's discoveries.

The next period of fieldwork covered a week and a half or two weeks in late December 1982 and early January 1983 when Vaziya came to Zaria, where I was teaching at Ahmadu Bello University. Vaziya stayed at my house, and because this was the University vacation period, we were able to work together for several hours every day. We spent part of this time in elicitation and part with Vaziya writing texts as I worked over the data that I had elicited in order to formulate further questions. Vaziya read all the texts back on tape so that I could have a record of exact pronunciation—Hausa orthography, on which Vaziya based his writing of Miya, does not mark tone or vowel length, and there are a number of sounds in Miya which do not exist in Hausa and which Vaziya therefore had no standard way of writing. Once the texts were written and recorded, we went through all of them word by word, with Vaziya explaining the meanings of structures I did not understand and giving meanings for words that I had not previously collected.

The third period of fieldwork was another stay of about a week in Miya in April 1983. I was again a guest in the home of Haladu Soja. This trip was the high point of my work on Miya. It was during the first few days of this stay that I was able to observe the *Zàbaka Dlerambò* festival mentioned in §1. This festival presented an exceptional opportunity to see firsthand many of the features of Miya culture which came up in texts, including the preparation and consumption of vast quantities of guinea corn beer, the regalia and dancing of many kinds of *dòdoo*, and music making and rites unique to the Miyas. Moreover, I was able to "have my beer and drink it too", because I was still able to do linguistic fieldwork each day during the festival and for several days after it was over. In addition to

elicitation work and linguistic analysis, I spent time during this trip recording texts, both as linguistic documents and as a way to learn something about Miya town and its people. The first recording session was with several Miya women, who sang traditional songs and told folktales. The second was with *Málvǎ Míy* himself, who narrated a long history of Miya town in Miya and with whom I recorded a discussion of Miya customs in Hausa. The only unpleasant feature of this trip was a severe attack of malaria which struck me on the day after my return to Zaria. This was one of the few times in my life when I thought I was going to die, or at least wished I would.

My final visit to Miya during this sojourn in Nigeria was in July 1983, again for about a week. I used this trip mainly to answer questions which I had formulated based on previously collected data, clean up loose ends in syntax elicitation, and transcribe recorded texts from the April visit. This was early in the rainy season, which provided me with the chance to see Miyas at work on their farms. My other two multi-day visits had been during the dry season when there was little work going in the fields. During this last visit to Miya I obtained a locally recorded 60-minute tape of a young man singing and accompanying himself on the *bàzakwáy*, a small five-string harp which has cognate names in other North Bauchi languages and which seems to be unique to this region. Vaziya transcribed a few of the songs from this tape (see list of texts below), but I had to leave before we could transcribe the entire tape.

As I note in the Preface, I had written the complete grammar by mid-1995 and submitted it to the University of California Press. The manuscript was accepted for publication and I had incorporated reviewers' remarks by summer 1996. In August-September 1996, I spent three weeks in Kano, Nigeria, on a Hausa videotaping project, during which I took a day off and traveled to Miya. I had made a list of some of the most troubling gaps in my data in hopes that I might be able to fill those in before submitting the final version of the grammar. To my delight, virtually the first person I encountered in Miya was Vaziya Ciroma, with whom I had worked 13 years earlier. After talking over our lives during this separation, I managed to work 2-3 hours with Vaziya, answering a number of questions which I had previously had to leave open.

From this description of my fieldwork, one can see that the present grammar is based on less than six weeks actual contact with the language. Nonetheless, I believe that the data I was able to assemble has been sufficient in quantity and quality to serve as the basis for a fairly complete and accurate description of the Miya language. Far more important than the amount of time spent doing field research is the way that time is used. I was fortunate to have had 5 prior years of experience in Africa (2 years in Niger as a Peace Corps volunteer, 1 year in Potiskum, Nigeria, as I did research for my doctoral dissertation,⁴ and 2 years in Gashua, Nigeria, as a senior research fellow associated with Ahmadu Bello University). I spent much of that time doing linguistic research, including work on a dozen or more Chadic languages. I had also worked for nearly two years during the late 1970's in Los Angeles with speakers of several Chadic languages who were students at a film and television production school in Hollywood. I therefore approached Miya as an experienced fieldworker with broad knowledge of Chadic languages. Miya has its own unique properties, of course, but it also shares many typological commonalities with its Chadic

⁴I was employed as a research assistant to do field research on the Ngizim language as part of a Comparative Chadic Syntax Project, funded by the National Science Foundation Grant, #GS-2270, Paul Newman, Principal Investigator.

cousins, a fact which provided me with some ideas about interesting areas to explore and which allowed me to readily spot patterns which resembled those in other Chadic languages. Over the years I had developed word lists and a syntax questionnaire which formed a productive framework for initial elicitation of most basic structures. Absolutely crucial, however, was time spent between elicitation sessions analyzing the data already collected in order to work out the patterns and the remaining holes in those patterns which could be plugged through further elicitation. I did this field analysis both during periods when I was in contact with informants in Zaria or Miya and during interim periods. It is for this reason that I say that I worked on Miya for about 11 months, even though much of that time was not spent doing "fieldwork" in the sense of work with native speakers.

Even with notebooks, a questionnaire, word lists, and Burroughs Unisort cards full of elicited data, it would have been impossible to write this grammar without texts. It was here that Vaziya's ability to write Miya was invaluable. Anyone who has ever tried to transcribe recorded texts knows the tedium and frustration involved, even from languages s/he knows fairly well much less a language which s/he does not speak. But with Vaziya's written version available, it simplified the task immensely because the basic flow of the text was already there, and only specific words and constructions needed clarification. As noted above, I also recorded orally delivered texts, but aside from various hesitation markers and perhaps a bit more Hausa slipping into the oral texts than occurred in the written texts, I found nothing to differentiate the texts presented in the two modes. This should not be surprising inasmuch as Miya has no "literary" form. The only style of Miya which a Miya person could write is spoken Miya.

I have approximately 80 "Big Exercise Book" notebook pages of transcribed texts with facing Hausa translation. The specific texts are the following:

Cultural Texts

(all first written by Vaziya Ciroma, who then read the texts for recording)

Wàr Bá Kavár 'The Kavura Festival' (2.5 pages): Description of preparation for and celebration of the principal annual Miya festival.

Wàr Bá Wíya Dəbə 'The Wrestling Festival' (2 pages): Description of wrestling matches, which are a sort of rite of passage for young men.

Vàhiya Zúw 'Pouring the Sorghum' (3 pages): Description of celebration during which a successful farmer displays largesse of beer, grain, and meat.

Záma na Səbə niya Àashiyí 'The Life of People in Olden Times' (2 pages): Description of communal farm labor, the way rivals would use fetishes to damage each other's farms, the way dead were buried, and a list of some traditional clothes.

Làabáariy Yaakíy t-Aashiyí 'The Story of War in Olden Times' (5 pages): The way Miyas defended against slave raiding, traditional methods for dealing with locusts, the principal crops raised by Miyas.

Yáddeení Miy d-àa Dáma 'Awree n-Aashiyí 'The Way We Used to Do Marriages' (4 pages): Traditional courting practices, the way one man would entice another man's wife away, and traditional rites preceding a birth.

Yáddeenée Miy d-àa Dóma Awree Naama 'The Way We Perform Our Marriages' (2.5 pages): Courting practices and obligations on the two families.

Yáddeenée Miy d-àa Sára Wútlómíy 'The Way We Circumcise Boys' (1.5 pages): Preparation of boys for circumcision and celebration at the time of circumcision.

Yáddeení Miy d-àa Dómaa Tál Naama 'The Way We Make Our Beer' (1.5 pages): Description of the making of guinea corn beer.

Tales

Anguna 'ənaa Bariydawa 'Anguna and Baridawa' (3 pages): Folktale narrated on tape by *Wàndásà*, a young woman.

Atukusən ndaa 'anaa Wiy 'A Hedgehog and a Certain Man' (3 pages): Folktale narrated on tape by *Sarkin Maataa Warmbà*, a middle-aged woman.

Wiya 'ənaa Lakumiy 'A Certain Girl and a Camel' (3.5 pages): Folktale narrated on tape by *Sarkin Maataa Warmbà*, a middle-aged woman.

Mámmàn 'ənáa Làbe 'Mamman and La'be' (8.5 pages): Folktale narrated on tape by *Banapo*, the late son of *Málvá Míy* (Banapo was killed in a tragic motorcycle accident sometime between 1973 and 1982). The tale was recorded in 1973 or 1974 by Neil Skinner and was transcribed, along with a Hausa translation, by Banapo, who was Skinner's main informant for the Miya list in Skinner (1977). The tale with Hausa and English translations has been published in Townseud (1976).

History

Táariyhìy na Míyà 'History of Miya' (19 pages): History of the founding of Miya and the modern history of Miya, narrated on tape by *Málvá Míy*, who had reigned for over 43 years at the time.

Táariyhìy na Míyà 'History of Miya' (5.5 pages): Text written, then recorded by *Vaziya Ciroma*, recounting the main events found in the more detailed narrative by *Málvá Míy*. Following the historical section, the text lists the quarters of Miya and discusses tax collection, travel to farms, and funeral practices.

Songs

Women's songs: 9 recorded and transcribed songs in Miya sung by *Tàkandá*, *Gòodíya*, and *Àsabé*. In addition to the songs in Miya, the women also performed several songs in Hausa.

Bàzakwáy songs: 7 recorded and transcribed songs sung by a young man accompanying himself on the five-stringed *bàzakwáy* harp. Name of musician not taken down.

The songs, while of ethnological interest, proved not to be too useful as linguistic documents. The meanings of the texts were often obscure, and there seemed to be many elliptical or otherwise unanalyzable constructions.

Throughout this grammar I have cited extensively from these texts. However, at this writing, the texts are available only in hand-transcribed versions in my notebooks and hence could not be consulted by interested scholars. I have therefore not given references

to the specific texts from which examples are drawn. I hope, in future to make the texts available, either in printed or electronic form, as well as the recordings from which the texts were transcribed. I am also currently working on a dictionary of Miya, which I hope will be of use both to the people of Miya and to scholars interested in this fascinating language.

Chapter 2

SEGMENTAL PHONOLOGY

1. Consonants

1.1. Consonant inventory

			labial	alveolar	(alveo- palatal)	lateral	velar	labialized velar	laryngeal
obst	stop	vl	p	t			k	kw	'
		vd	b	d			g	gw	
		glot	β	ɗ					
	afir	vl		ts	c				
		vd		dz	j				
	fric	vl	f	s	sh	tl			h
vd		v	z	zh	dl			gh	
son	nas	nas	m	n					
		stop	mb	nd			ng	ngw	
		afir		ndz					
		fric		nz					
	son	liq		r		l			
		glide			y			w	

1.1.1. Labial fricatives. The voiceless labial fricative /f/ is phonetically a "loose" bilabial fricative [ɸ] but frequently pronounced [h^w]. Its range of phonetic realizations makes its status sometimes ambiguous between classification as a labial or as a labialized laryngeal (see §1.1.2), and historically, it represents a merger of proto-Chadic *k^w and *f for some words, e.g. 'áfuw 'goat' (cf. Ngizim áakù) but gwàlfə 'chieftainship' (cf. Ngizim gárvà). The voiced counterpart /v/ seems always to be pronounced as a real labial fricative [β], but it shares with /f/ the property of conditioning word final /ə/ → [u] (§2.2.1).

1.1.2. Laryngeals. Glottal stop is phonemic, contrasting with other consonants initially and intervocally. Initially, it also contrasts with *absence* of a consonant before a vowel (see examples below). Phonetically, /h/ is a voiceless laryngeal fricative whereas /gh/ is usually a voiced velar fricative [ɣ], albeit with very light friction. On a purely phonetic basis, then, one might argue that these three sounds not be classed together. However, there are arguments that they function as a class, though the evidence for velar vs. laryngeal classification is ambiguous. On the side of velar classification is the fact that these sounds, along with the velars, condition assimilation of preceding nasals to [ŋ] (§1.2.1). On the side of laryngeal classification is a tone rule, LOW RAISING, which raises L after L in certain constructions just in case the raised syllable does not begin in a voiced obstruent (3:§3.4). Here, /gh/, though phonetically a "voiced velar", does not pattern with the voiced obstruents, e.g. ghəruw 'cow' but wùna ghəruw 'calf' (son of cow), with the syllable ghə- raised after low. This suggests that the "voicing" gesture or the type of occlusion or both for /gh/ are different from voicing/occlusion of voiced obstruents, which are associated with tone lowering or blocking of tone raising processes in many languages (Hyman and Schuh 1974). If /gh/ were excluded from the *oral* obstruent class, the result for LOW RAISING would fall out naturally.

1.1.3. Prenasalized obstruents. A number of arguments require an analysis of prenasalized obstruents ("nasal stops, affricates, and fricatives" in the table in §1.1) as phonological units rather than sequences. Distributionally, prenasalized obstruents can appear word initial, where they would be the only consonant clusters if they were not analyzed as units. Morphological tests also show them to be units. The most common noun plural type (8:§2.3.1) reduplicates the last root consonant, and there the entire prenasal is reduplicated, not just the obstruent portion (gàndə, pl. gāndandāw 'hide (of animal)' vs. dlántə, pl. dlāntātāw 'lion', where nt is a sequence, not a unit). In one tone class of verbs, verbs with a light first syllable have a gerund of the tone pattern HH whereas verbs with a heavy first syllable have LH gerunds (4:§2.2.1). When the second syllable begins in a prenasal, the first syllable is treated as light rather than as CVN (rámbákə 'upsetting' vs. dərbákə 'pressing'). The only piece of evidence which I know of which might be an argument that prenasals are sequences is the fact that whereas /r/ can occur freely in most rC sequences, it cannot abut a prenasal consonant within a word (though it can abut prenasals across word boundaries, e.g. zār mbərgù 'call a ram!').

The evidence favoring an analysis of prenasalized consonants as phonological units is clear. The classification of these consonants as [+sonorant], as in the table in §1.1, is more equivocal. The main argument for this classification is the rule LOW RAISING which raises L after L just in case the raised syllable does *not* begin in a voiced obstruent (3:§3.4). The prenasalized consonants, though they have a voiced obstruent component, do not block LOW RAISING (mbərgu 'ram', mbàda mbərgù 'thigh of a ram'). On the other hand, if the last consonant in a word is an obstruent, it must be followed by /ə/, whereas if the last consonant is a sonorant nasal, it cannot (§2.2.1). Here, prenasalized consonants pattern with obstruents (gùmbə 'gourd' vs. gwágùm 'dove'). It thus seems that the processes which involve an interface with the *beginning* of prenasalized consonants treat them as sonorants whereas processes which involve an interface with the *end* of these consonants treat them as obstruents.

1.1.4. Palatal obstruents. The status of the palatal obstruents /*c, j, sh, zh*/ as independent phonemes is not immediately obvious. They are related morphophonemically to /*ts, dz, s, z*/ respectively as in such pairs as *ázházhə* 'flaying', *zəza* 'flay!', but these alternations are conditioned by a prosodic process of morphological palatalization (§4) rather than the local phonetic environment. Since the environments for morphological palatalization cannot be unconditionally predicted and since it varies in its effects from token to token, one could argue that whenever a word contains one of the palatal obstruents, this is sufficient evidence for the word as a whole to be palatalized, and hence, any word with the structure [... [C, +pal] ...] is underlyingly /... [C, +alv] .../[PAL]. There are, however, arguments that the palatal consonants have independent phonemic status in addition to being alternants of the alveolars. First, there are a few words which mix palatal and alveolar obstruents, e.g. *càsə* 'much, many', *cámázə* 'night'. While the phonetic effects of morphological palatalization do vary from token to token, I know of no cases of unambiguously palatalized words where any tokens of /*ts, dz, s, z*/ remain unpalatalized. Thus, if the examples here were palatalized, we would expect **cashə* and **camazhə* (with or without fronting of the vowels). Second, borrowings from Hausa which contain palatal consonants are always borrowed as such, e.g. *shúwdíy* 'blue', and as far as I know, these are never made to alternate with alveolars. Thus, palatal obstruents appear to be independent phonemes, but there are many words which contain palatal obstruents where no independent evidence exists to decide between conditioning by overall morphological palatalization or presence of a palatal phoneme in a non-palatalized word, e.g. *càatə* 'red pepper', *jàngər* 'kite', *shəm* 'penis', *zhəkə* 'much'.¹

The alveolar strident consonants have the (alveo)palatal counterparts just discussed. All other consonants have palatalized counterparts, e.g. /*m, t, g*/ with corresponding [mʲ, tʲ, gʲ] and so on for other consonants. These appear only in words which are unambiguously morphologically palatalized (§4).

1.1.5. Examples of Miya consonants in context. In the table below, words in parentheses illustrate the environment in question but with a following /ə/ required by syllable structure constraints (§3.1). Question marks indicate probable accidental gaps in my data for which nothing suggests there is a systematic exclusion. A series of dashes indicate apparent systematic gaps (see §1.1.2 for comments on the status of *gh*, which shows several such gaps).

¹Vaziya's written Miya provides additional evidence that the alveolar/palatal relationship is morphophonemic, not purely lexical or historical. He had no experience writing Miya, a language for which no practical orthography has been developed and which Miya speakers do not use for written communication. However, he was a good speaker and writer of Hausa. Hausa has the symbol *c*, corresponding to the Miya sound symbolized *c* here, and also the symbol *ts*, which is a glottalized alveolar affricate in Hausa (though Vaziya pronounced it as an unglottalized affricate in his pronunciation of Hausa). In writing Miya, Vaziya consistently substituted "ts" for /*c*/, e.g. "tsu" for *cuw* 'goats', "tsamazi" for *camazə* 'night', "kwitsiya" for *kuciya* 'nine', even though Hausa and Miya share the sound [ɕ] and Hausa has the orthographic symbol *c* for it. Aside from this, however, Vaziya generally used the Hausa symbol representing the sound closest to that in Miya, e.g. *sh* for Miya *sh* (*washasham* 'year'), *j* for *j* (*jiyeyi* 'there is'), and *z* for both *dz* and *zh*, these latter two being absent in Hausa ("jahu nitlin" for *dzafu niytlən* 'their men', *ziki* for *zhəkə* 'much'). As expected, he used Hausa *s* and *z* for the corresponding Miya sounds.

/___#	/V___a	/V___C	/___#
pàkə 'wing'	ápar 'horn'	(ápasándə) 'gecko'	(dàpə) 'termite'
tàl 'beer'	kwàtay 'dust'	(tátəfáy) 'strainer'	(pátə) 'all'
kàbə 'gown'	ràkəkə 'chasing'	(dàkəman) 'gourd'	(pàkə) 'wing'
kwákwiyy 'granary'	ndàkway 'vulture'	(átukúfə) 'toad'	(təmáku) 'sheep'
'ám 'woman'	ágá'y 'left'	(?)	(nà'ə) 'duiker'
báahə 'father'	lábədə 'shoulder'	(dzàbərəku) 'guinea fowl'	(kàbə) 'gown'
dáangu 'hare'	màdashí 'okra'	(?)	(ghàdə) 'fish'
gàhuw 'stalks'	gəgəfə 'zana-mat'	(vəgədə) 'pants'	(?)
gwàlfə 'kingship'	dəgəwəfə 'elay'	(dəguriy) 'virgin sheep'	(mbərgu) 'ram'
bàdam 'bamboo'	ràbəkə 'moisture'	(gwəbasam) 'thick'	(dəgəwəfə) 'clay'
dáy 'mountain'	ám-bí-dahàn 'frog'	(átsəfəfə) 'broom'	(bədfə) 'navel'
tsàkəm 'bush'	tá-rátsániy 'gizzard'	(átsəfəfə) 'broom'	(bàtsə) 'spit'
cámázə 'night'	hácaawú 'morning'	(kúciya) 'nine'	(?)
dzám 'beans'	mədzay 'earth'	(ádzəmakə) 'groaning'	(mádzə) 'river'
jàngər 'kite'	rínjakə 'fishing'	(?)	('ji) 'mortar'
fəpə 'froth'	káfəkə 'message'	(áfídyadu) 'whistling'	(káfə) 'scar'
səl 'mongoose'	ápasándə 'gecko'	(màsəfə) 'hemp'	(áwásə) 'grass'
shəm 'penis'	ámisháangay 'worm'	(áshinà) 'farmhouse'	(vúwshi) 'trash heap'
tlákákə 'scratching'	gətlakə 'belch'	(wútləmty) 'children'	(tətlə) 'cotton'
há'ar 'fat'	ám-bí-dahàn 'frog'	(d'əshənəkə) 'tying'	(wáhə) 'sand'
vəray 'seed'	rāvazhə 'fatness'	(kəvəkə) 'monitor'	(rəvə) 'chaff'
zə'ə 'bow'	bàzakwáy 'harp'	(ázúkú) 'unele'	(ángúzá) 'beard'
zháw 'rope'	ázhəm 'hornbill'	(zhàzhəkə) 'porcupine'	(vəzhə) 'sickness'
dìr 'hunting'	gədlaniy 'tray'	(dlədlərakə) 'trembling'	(?)
ghàm 'head'	-----	-----	-----
máadzə 'river'	cámázə 'night'	?	dzám 'beans'
nà'ə 'duiker'	sənəkə 'knowing'	ádzəndar 'bedbugs'	vən 'mouth'
mbàtlə 'near'	kwàmbal 'stick'	(fəmbəzəm) 'spirits'	(ádambə) 'hairdo sp.'
ndàkway 'vulture'	ándázhi 'hippo'	(ándələakay) grass sp.	(gəndə) 'hide'
ngávərəkə 'hee sp.'	màngana 'scorpion'	(dàngəsə) 'warthog'	(gəangu) 'stork sp.'
ngwàrtiy 'snoring'	gwàangwan 'gate'	(ángunám) fly sp.	(eəngu) 'billy goat'
ndzàhiy 'poverty'	?	(bàndzəhə) 'young man'	(?)
nzəl 'flute sp.'	gədfanzakway 'hyena'	(?)	(?)
rāvazhə 'fat'	vəray 'seed'	tìrəfə 'forest'	átar 'squirrel'
láhə 'jackal'	ngəlatə 'sickle'	təlpə 'hoe'	təl 'beer'
yəwun 'elephant'	píyátə 'sweet'	(see §§2.2.2, 3)	kúmáy 'car'
wàkə 'lie'	zúway 'peanuts'	(see §§2.2.2, 3)	sónáw 'sleeping'

1.2. Rules affecting consonants

1.2.1. Nasals in syllable codas. Nasal sonorants (as distinct from prenasalized consonants) may appear, as do other non-nasal sonorants, in syllable codas (§3.1). If the syllable coda is word final, the following rule is applicable:

PRE-PAUSE NASALS: $\left[\begin{array}{l} +\text{nasal} \\ +\text{sonorant} \end{array} \right] \rightarrow [m] \text{ or } [n] / _ \# \text{ (}\# = \text{pause)}$

Both nasal sonorant phonemes /*m, n*/ have alternants [m] and [n] in free variation before pause. The underlying nasal appears unambiguously before vowels, as in noun plurals:

[átín]	or	[átíu]	'nose'	but plural [átímamàw] only
[sə̀rəm]	or	[sə̀rəu]	'knife'	but plural [sə̀rəmámàw] only
[pə̀pám]	or	[pə̀páu]	'cave'	but plural [pə̀pánanàw] only
[ngəm]	or	[ngèn]	'name'	but plural [ngə̀nanàw] only

The [m/n] alternation has created a shift from the etymological consonant of some words. Thus, the word 'nose' is reconstructed with final *n, though it now has underlying m in Miya (cf. Newman's (1977) proto-Chadic reconstruction *atən). The alternation has also created anomalies in modern Miya, where the final nasal is conditioned by morphological environment, e.g. [t̪iyim] = [t̪iyin] 'tooth' in isolation, plural t̪iyimámàw with m, but t̪iyin-aama 'our tooth' with n.

In syllable coda position preceding another consonant, the following rule applies:

NASAL ASSIMILATION: $\left[\begin{array}{l} +\text{nasal} \\ +\text{sonorant} \end{array} \right] \rightarrow \left[\begin{array}{l} \alpha\text{place} \\ \left\langle \begin{array}{l} -\text{nasal} \\ +\text{vocalic} \end{array} \right\rangle \end{array} \right] / \text{---} \left[\begin{array}{l} -\text{syllabic} \\ \alpha\text{place} \\ \left\langle +\text{vocalic} \right\rangle \end{array} \right]$

That is, a sonorant nasal assimilates to place of articulation of a following consonant, and if that consonant is a liquid (l, r = [+vocalic, +consonantal] in traditional feature terminology), the nasal assimilates to it completely. This rule is an unexceptional condition on lexical structure. Across morpheme boundaries lower than word boundaries, it applies obligatorily to /n/ but optionally to /m/:

Word internal	Assimilated across morpheme boundary
ghəntsə 'laugh!' (cf. ghəmtsə 'laughter')	/m/ kàm (pl. kàmamáw) 'compound'
yinfə 'plum tree'	kàm-ma 'our compound'
[yũŋfə] ²	kàm-fə 'your (m) compound'
dɪntɔ́ 'lion'	kàn-ná 'your (pl) compound'
shíndə 'cold'	kàn-tlón 'their compound'
ghənsə 'god'	kàn-ghən = kàm-ghən 'your (f) compound'
kúnkúl 'cap'	kàn-wan 'my compound'
cáŋhə 'heart'	shím (pl. shímamáw) 'farm'
shínyákə 'sucking'	shín-ka 'the farm'
	/n/ sən (v.n. sənəkə) 'to know'
	à səm máw 'he doesn't know'
	à sən sáy 'he knows'
	pópáŋ ka 'the cave'

I have no examples of /m/ being assimilated to liquids. Following are examples of /n/:

n → r / _ r		n → l / _ l
már rinja sáy 'I finished'	cf. mən-áa zàraw 'it's me who called'	mól làa sáy 'I got well'
mà ra-r ráw 'you are better than me' ('you exceed me')	cf. à tsa-n súw m̄ir-áy 'he gave me money'	gèra-l lóm 'show me the hut'

²I did not carefully investigate assimilation of nasals to /ff/. In examples of /m/ before /ff/, my notes indicate [m, n, n], where "[n]" is probably [ŋ]. This variable pronunciation is accounted for by both the variation in assimilation across boundaries and the variation in the pronunciation of /ff/ (cf. §1.1.1).

Across word boundaries, /n/ optionally assimilates. For example, the prenominal demonstratives nàkən (m), tákən (f) 'this' rarely assimilate—cf. [tákən mɔ́dɔ́] 'this goat', [nákən kùsam] 'this mouse'. The word bàhən 'tens' optionally assimilates to a following "units" number, e.g. [bàhən vaatlə] 'fifteen' ("teen"-five), but [díbi tsər bahən vaatlə] 'twenty-five' (ten-two-"teen"-five). The same holds for the preposition wán 'like', e.g. [wán mɔ́n] 'like me', but [wám mɔ́dɔ́] 'like a goat'. In §1.1.2, the glottal stop (ʔ) was grouped as a laryngeal along with /h, gh/ partly on the basis of assimilation of a preceding nasal as [ŋ] before this class of sounds. I found no words with internal ...N'... sequences. As for other sequences across word boundaries, nasal assimilation to /ʔ/ is optional, e.g. [wán 'afúw] 'like a goat' but [tákən 'afúw] 'this goat', [mɔ́n 'əsá-wán sáy] 'I am sated'.

1.2.2. The realization of /gh/. Historically, /gh/ has come from *g in cases where there is a known etymology, e.g. ghàr 'grow old' < *garə³, ghəntsə 'laugh' < *gamsə, ghàn 'build' (cf. Hausa gina), ghərwán 'aardvark' (cf. Hausa dabgi, with metathesis of consonants in one or both languages). This historical sound change must have been conditioned by factors now lost to us inasmuch as [g] is common in Miya, both initially and medially (cf. gār-na 'big, important', which is a doublet with ghàr 'grow old'). The table in §1.1.5 shows that /gh/ is found only word initial. It may be that the sound change did not affect medial *g or that changes parallel to the rules to be given in this section have eliminated phonetic medial *[gh].

There is a single morpheme in Miya where /gh/ may show up medially. This is the second feminine singular clitic pronoun /ghəm/. This clitic has initial [gh] in the environments /C_ (C ≠ y) and /ə_ə (see §1.1.2 for remarks on the phonetics of /gh/):

à zar-ghən sáy	'he called you'
à tɔ́s-ghən sáy	'he shot you'
ákyar-ghən	'your back'
/kóm-ghóm/ → [kəŋYón]	'your hand'
/mbàdádáw-ghəm/ → [mbàdádóoghən]	'your thighs'

In the other environments where /ghəm/ may appear, it alternates according to the following rules:

/gh/ PALATALIZATION: gh → y / y_ ⁴

i.e. /gh/ assimilates to a preceding /y/. The /ə/ vowel of the clitic then assimilates to this derived [y] by regular rule (§2.2.1):

/à tiy-ghəm sáy/ → [à tiyyin sáy]	'he beat you' (cf. à tiy-tla sáy 'he beat her')
/níy-ghəm/ → [níyyin, níyyim]	'yours' (cf. níy-zà 'hers')

The string -iyyi- may be further contracted to [iyi] or even [iy], e.g. níyim or níym 'yours'.

³Reconstructed items are from Newman (1977).

⁴The verb ghàr 'grow old' has a deverbal noun áyerèti, with a prefix á- and a suffix -ti. This deverbal noun is morphologically palatalized (§4). Under the morphological palatalization, intervocalic /gh/ has changed to [y], suggesting that the rule of /gh/ PALATALIZATION may apply to any (medial?) /gh/.

The first set of examples above shows that [gh] remains in the environment /ə__ə. The only other possible intervocalic environment is /a__ə, where the following processes take place:

/gh/ DELETION: gh → Ø / a__ə

/aa/ COALESCENCE: aa → [ɾɾ]

These rules produce a (long) mid, back unrounded vowel [ɾɾ] which does not exist as an independent vocalic phoneme of Miya. It turns out to be a rather frequently occurring sound, however, because it arises every time a second feminine singular pronoun is cliticized as an indirect object to any verb (5:§4.3), as a direct object or Intransitive Copy Pronoun to any verb in a “nominal” TAM, as a direct object to any *a*-verb in a “verbal” TAM (5:§4), and as a possessive pronoun to any noun in a genitive construction with a “linking vowel” /a/ (10:§3.1.1).

/à bəs-a-ghəm suw kàb-áy/	→ ... bə́sɾɾn suw ...	‘he washed the gown for you’ (IO)
/tə s-áa zàra-ghəm-áy/	→ ... zàrɾmáɾ ...	‘he will call you’ (DO)
/màa g-aa za-ghəm/	→ ... zɾɾn	‘you will enter’ (ICP)
/à bəta-ghəm say/	→ ... bə́tɾɾn say	‘he untied you’ (DO, “verbal” TAM)
/mbàd-a-ghəm/	→ mbàdɾɾn	‘your thigh’ (genitive)
/ná-ghəm/	→ nɾɾn	‘yours (ms possessed N)’ (genitive)

The derived vowel may be assimilated to the [round] and/or [back] features of a preceding glide:

/vùw-a-ghəm/	→ vùwɾɾn	→ [vùwɔɔn]	‘your stomach’
/kúmáɾ-à-ghəm/	→ kúmáɾɾn	→ [kúmáɾɛɛn]	‘your ear’

The /gh/ DELETION and /aa/ COALESCENCE rules optionally extend to /h/ to account for variants of the word /dáhə/ ‘in(side)’ optionally → [dɾɾ], e.g. zàɾ dáhə = zàɾ dɾɾ ‘put (it) in!’, tɛ́n dɾɾ-zà ‘they (are) in her’. This extension to /h/ is morpheme specific. No other words with intervocalic /h/ undergo this reduction, e.g. bə́hən ‘tens’ (in numbers) never → *bɾɾn, wáhə ‘sand’ never → *wɾɾ, láahə ‘jackal’ never → *lɾɾ.

2. Vowels

2.1. Vowel inventory. Miya vocalic segments can (almost) be accounted for with just three underlying vowels:

ə, a, aa

These vowels have phonetic counterparts written using these symbols ([ə] = IPA ɛ following the standard practice in Chadic linguistics). However, spoken Miya does not give the impression of having a limited vowel inventory because of the variety of phonetic variants for each of the underlying vowels. The phonetic vowels and their underlying forms are as follows:

[i]	= /ə/ assimilated to /y/ (§2.2.1) or palatalized (§4)
[u]	= /ə/ assimilated to [+round] segment (§2.2.1)
[i:]	= /əy/ (§2.2.2)
[u:]	= /əw/ (§2.2.2)
[e]	= /a/ palatalized (§4); written “e” here
[æ:]	= /aa/ palatalized (§4)
[e:]	= /ay/ monophthongized (§2.2.3.2)
[o:]	= /aw/ monophthongized (§2.2.3.2)
[ɾ:]	= /a + ə/ after elision of intervening /gh/ (§1.2.2)
[ɛ:]	= palatalization/fronting of [ɾ:] (§1.2.2)
[ɔ:]	= labialization of [ɾ:] (§1.2.2)

The parenthesized “(almost)” at the beginning of this section is a caveat for a small number of mid vowels for which there is no synchronic justification for derivation from /ay/ or /aw/—see §2.2.3.2.

2.2. Vowel distribution and alternation

2.2.1. The vowel /ə/. Both syllabic position and phonetic realization of /ə/ are predictable. See §3.1.2 for position of /ə/. For purposes of a practical orthography, I use three short high vowel symbols to approximate the phonetic values of /ə/, i.e. *i*, *a* (= [ɛ] or [u]), and *u*, but in reality the actual range of pronunciation covers the entire high vowel spectrum. The following rules account for the three qualities implied by the symbols *i*, *a*, *u* (“%” means “on either side of”, σ = “syllable”):

/ə/ FRONTING: ə → i $\left\{ \begin{array}{l} \% \text{ y} \\ / \dots \text{ — } \dots /_{[\text{palatalized}]} \end{array} \right\}$

(The second line is optional if the word is marked by at least one other sign of palatalization—see §4.)

/ə/ ROUNDING: ə → u $\left\{ \begin{array}{l} \% \text{ [+round]} \\ \% \dots \text{ u } \dots \text{ in contiguous } \sigma \text{ (opt)} \\ / \left[\begin{array}{l} \text{+labial} \\ \text{+cont} \end{array} \right] \text{ — } \text{ (opt)} \end{array} \right\}$

Examples of FRONTING:

kìyim /kə̀yəm/	‘crocodile’
tsíyakə /tsə̀yakə/	‘question’
tízhə = tə̀zhə	‘guinea worm’
átívi /átə̀və/_{[\text{palatalized}]}	‘traveling’

In the first example, there is no way of being sure whether the two [i]’s result from the contiguous /y/ or from morphological palatalization. The second word is clearly *not* palatalized. If it were, the initial segment would be [c]. The third word is morphologically palatalized, as shown by both the internal [i] in the left-hand token and [zh] rather than [z]. In both tokens, the final vowel is [ə] since [zh] is sufficient to show palatalization. The last

word is likewise morphologically palatalized, as shown by both the verb form from which it is derived (*təva* 'walk, travel', always pronounced with internal [ə]) and the final short [i]—/ə/ is (optionally) realized word final as [i] only in palatalized words.

Examples of ROUNDING:

yàwun /yàwən/	'elephant'
kùtə /k ^w ətə/	'thing'
tsùway /tsəway/	'morning'
sùkwam /sək ^w am/	'honey'
wùrum /wərəm/	'knee'
tsiyaku /tsiyak ^w ə/	'ridgerow' (cf. pl. <i>tsiyakwák^wwàw</i> —cf. <i>tsiyákə</i> 'question')
dáangu /dáang ^w ə/	'hare' (cf. pl. <i>dáangwangwàw</i> vs. <i>dáangə/dáangangàw</i> 'water pot(s)')
mùku /mək ^w ə/	'sun'
rùfu = rəfə	'sauce'
málvú = málvá	'chief'

The contrast between labialized and plain velars accounts for what looks, at first, like a word final contrast between /u/ and /ə/, e.g. the words for 'ridgerow' vs. 'question' and 'hare' vs. 'water pot'. That the contrast is in the consonant is clear from the plurals, where the labialization or lack of it shows up before /a/.

When the mirror image environments of the FRONTING and ROUNDING rules are in conflict, the following environment usually wins:

gwíyím <i>but</i> ??[gúyím]	'yam'
wíy <i>but</i> *[wúy] ⁵	'a certain one (m)'
yúkwa <i>but</i> ??[yíkwa] = 'yíkwa ⁶	'where?'
yùw <i>but</i> *[yiw] (cf. fn. 5)	'madness'
yùnfu = yùnfə	'plum tree'

In the last word, /f/, though generally pronounced as a fairly rounded bilabial [ɸ], does not have as strong a rounding influence as /w/ or the labialized velars. The second pronunciation [yùnfə] is thus possible, with the first /ə/ fronted by the preceding consonant and the final /ə/ unrounded.

2.2.2. Vowel length and the status of [i:] and [u:]. A contrast between short /a/ and long /aa/ is clear. The only minimal pair in my data (which irrelevantly also contrasts in tone) is *càngu* 'billy goat' vs. *cáangú* 'Abdim's stork', but there are numerous other pairs which differ in ways that have nothing to do with the length contrast, e.g. *tàbasə* 'wound' vs. *táabə* 'tobacco', *wàsən* 'year' vs. *wàasay* 'salt'.

Since there is a length contrast for the low vowels, should we also appeal to a vowel length contrast to describe the vocalic differences in the first syllables of pairs such as [dì:tsə] 'grain' vs. [tí:zhə] 'guinea worm' or [dzù:kə] 'kapok' vs. [sùkwam] 'honey'? The

⁵Miya does not tolerate diphthongs with high vowel nuclei.

⁶The lexical representation of the root here poses an interesting problem. It is a "locative pronominal" which appears in a number of locative constructions—cf. 8:§6.3. It would seem to have alternate representations /yəl/ and /əyl/. Assimilation of /ə/ follows the general patterns in either case.

answer is, "No." Rather, several types of arguments show that [i:] and [u:] are VC rimes with the underlyingly forms /əyl/ and /əwl/ respectively. I present arguments for this analysis under three headings: *distribution* of vocalic nuclei vs. VC rimes; evidence that these rimes have *consonantal codas*; and evidence that these rimes have a *vocalic nucleus* followed by a consonant rather than being purely vocalic rimes.⁷

Distribution: In §2.2.1, I show that the short high vowels (written *i, ə, u*) are in complementary distribution. If [i:] and [u:] were underlying monophthongal long vowels, we would have the anomalous situation of intuitively "marked" long vowels without less marked short counterparts. A second distributional fact concerns root final vowels. Aside from several prepositions, there are no word final long /aa/'s at all, and among native, underived common nouns there are no final long /aa/'s or short /a/'s. The only word final vocalic nuclei in such nouns are /ə/, [i:], and [u:], e.g. *pàkə* 'wing', [dlárkí:] 'chicken', [ghàdu:] 'wood'. If the latter end in /əyl/ and /əwl/ respectively, then they are examples of nouns ending in sonorant consonants, hence requiring no final /ə/ (cf. §3.1.2). If, on the other hand, they end in /i:/ and /u:/, we have the anomalous situation that the only non-obligatory contrastive vowels which may terminate common nouns are the long high vowels, and only these long vowels can be word final even in word classes that can end in short /a/.

Consonantal coda: The regular method for forming noun plurals (8:§2.3.1) is to add *-aCaw*, where C = a copy of the last root consonant, e.g. *átar* 'squirrel' pl. *átararàw*, *máadzə* 'river' pl. *máadzadzàw*. Nouns ending in [i:] and [u:] form their plurals as follows: [kwákwi:] 'granary' pl. *kwákwiayàw*, [múdu:] 'python' pl. *múduwawàw*. If the final syllables of the singular have codas /y/ and /w/ respectively, plural formation applies regularly to such nouns. Similarly, gerunds (4:§2.1.1) add a suffix *-akə* to a verbal root, e.g. *már* 'get' gerund *márákə*, [kí:] 'bite' gerund *kíyákə*, [zù:] 'leave' gerund *zùwakə*. The underlying consonants /y/ and /w/ show up before the suffix without any subsidiary rules of "glide formation", which would be required if the nuclei were underlyingly monophthongal.

Vocalic nucleus: Pluractional verbs (7:§3) have three forms, conditioned by root structure:

Root structure	Verb	Pluractional
CV ROOTS:	sa	'drink' səsə
	pa	'collect' pəpə
CəC ROOTS:	pər	'cut' papəra
	tsəga	'sit down' tsatsəga
	tiy [ti:]	'hit' tatiya
CəCC ROOTS:	vərkə	'give birth' varka
	təkən	'beat drum' takəna
	ziyrə [zi:rə]	'pass' /zayra/ → [zeera]
	buwyə [bu:yə]	'break (stick)' /bawya/ → [booya]

⁷The arguments here apply specifically to Miya. One cannot know, without investigating facts such as those outlined here, what the analysis of phonetic long vowels should be. In Sehu (1989b) I demonstrate that in Hausa, in contrast to Miya, [i:] and [u:] are long monophthongs which contrast with their short counterparts.

CV roots add a reduplicant syllable *Cə*, whereas *CəC* roots add a reduplicant syllable *Ca*. Here, the verb [*ti:*] 'hit', patterns with *CəC* roots rather than CV. *CəCC* roots do not reduplicate a syllable, but rather change the internal and final vowels to *a*. In verbs with internal [*i:*] or [*u:*], the vocalic nuclei are treated as [*əy*] and [*əw*], changing to *layl* and *lawl* respectively in pluractionals, which are then monophthongized to [*ee*] and [*oo*] (§2.2.3.2). Another verbal pattern which would be worth investigating is a class of deverbal nouns (4:§2.3.1) derived from CVCC roots, e.g. *ghəmətsə* 'laughter' from *ghəntsə* 'laugh'. This class of deverbal noun intercalates the vowel pattern ...*a*...*a*... between the first two consonants. Thus, for example, from a [*Cu:C*] root, we would expect a *CawaC* verbal noun. I found no verbal nouns of this type among candidate verb roots such as *zìyrə* 'pass' or *būwya* 'break', but the prediction which the analysis here would make is clear.

2.2.3. Diphthongs and monophthongization

2.2.3.1. Diphthongs as underlying *layl* and *lawl*. Miya has two low-rising diphthongs, as in *sây* 'liver' and *sâw* 'tail'. Following arguments parallel to those in the preceding section for *ləy* and *ləw*, I consider the low-rising diphthongs to be VC syllable rimes rather than vocalic nuclei *lai* and *law* respectively. That the glides serve as *consonantal codas* is evident in nominal plurals, e.g. *sâyayâw* 'livers', *sâwawâw* 'tails', where the final root consonant appears in the reduplicative plural formative (cf. discussion on *consonantal coda* in the preceding section). Evidence that these diphthongs consist of a *vocalic nucleus* followed by a *consonantal coda* can be found in pluractional forms, parallel to verbs with internal *ləy* and *ləw* seen in the previous section. Verbs with root structure *CaC* form their pluractionals by lengthening the internal root vowel *a*. This includes verbs whose final root C is a glide:

Root structure	Verb	Pluractional	
CaC ROOTS:	kàfə	'send'	kàafa
	làw	'pluck (fruit, etc.)'	làawa

A further piece of evidence of the *a* of *lawl* forming a vocalic nucleus separate from the *w* coda can be seen in the verb *tsòd'á* 'carve' < *tsàw'd'á* (see §2.2.3.2 for monophthongization of *lawl* → *loo*). This verb is a pluractional form of a root **tsəw'd'al*, unattested in my data.⁸ *Tsòd'á* has a deverbal noun *tsàwad'ə* of the type mentioned at the end of the preceding section. As noted there, such verbal nouns are formed by intercalating ...*a*...*a*... between the first two consonants of the verb root. The deverbal noun for *tsàw'd'á* shows that the *-w-* is the second of these root consonants.

2.2.3.2. Monophthongization. The following rule accounts for almost all occurrences of [*oo*] and [*ee*]:

⁸Miya, like many other Chadic languages, has a number of lexicalized pluractionals where the original roots are no longer in use. Parallel to Miya *tsòd'á* 'carve' is the Hausa verb of the same meaning, *sassàkaa*. This is a pluractional, historically related to *saakàa* 'weave', but no longer directly connected to it semantically or morphologically (note the short vowel in 'carve' but the long vowel in 'weave').

MONOPHTHONGIZATION: *aw* → *oo* / ___ C (obligatory)
ay → *ee* / ___ C (variable across boundaries)

à boo-ta sáy	'he went out'	cf. <i>bàwakə</i> 'going out'
món ləo mángwàraraw	'I plucked mangoes'	cf. <i>làwakə</i> 'plucking'
à koo sáy	'he fried (it)'	cf. <i>njə s-áa kàwa koosáy-ay</i> 'she will fry bean cakes'
tsòd'á	'carve'	cf. <i>tsàwad'ə</i> 'carving'
kàmamóo-tlèn	'their houses'	cf. <i>kàmamáw</i> 'houses'
dlárkóo niywan	'my chickens'	cf. <i>dlárkáw</i> 'chickens'
sónóo dóm	'dozing' (sleeping [of] tree)	cf. <i>sánáw</i> 'sleeping'
née kàn-wan kən	'here's my house here'	cf. <i>náyákə</i> 'seeing'
vàree zúw	'corn seed' (seed [of] corn)	cf. <i>vàray</i> 'seed'
món lèe sáy	'he painted (it) red'	cf. <i>làyakə</i> 'painting red'
món piyéé ndùwul	'I put back the pot'	cf. <i>piyayakə</i> 'putting back'

MONOPHTHONGIZATION applies more categorically to *lawl* than to *layl*. Some cases of *lawl* monophthongize where *layl* does not in identical environments, e.g. *à koo sáy* 'he fried (+ Totality—7:§2.1)' with verbal noun *kàwakə*, but *à kay sáy* 'he fanned'. Tokens of the same word ending in *layl* sometimes are monophthongized, sometimes not, e.g. compare 'I put back the pot' above with *à piyáy say* 'he put (it) baek (+ Totality)'. When I checked the [*ay*] ~ [*ee*] alternation, Vaziya sometimes rejected the [*ee*] alternative, e.g. *à fay sáy* → **à fee sáy* 'he blew (+ Totality)'.⁹

As noted at the beginning of §2.1, Miya vocalic nuclei can almost all be accounted for with only three underlying vowels, *ə, a, aal*. The caveat "almost" is needed to account for a small number of items containing mid vowels where there is no independent justification for a synchronic source from *layl* or *lawl*. I will here consider all words in my data which contain non-alternating mid vowels and show that in almost all cases, they are either in complementary distribution with corresponding diphthongs or can somehow be related to diphthongs.

Medial in underived (presumably) native Miya words, there are virtually no mid vowels or diphthongs. The only word internal mid vowel I found in lexical elicitation is in *tsòd'á* 'carve' < *tsàw'd'al*, discussed in §2.2.3.1, and the only word internal diphthong is in *ákáytə* 'difficulty' (probably derived from *káy* 'fighting').⁹ The following "words" all have non-alternating mid vowels, but all are morphemically complex, at least historically, and the mid vowels are *root* final, even though not *word* final. Were these the only non-alternating mid vowels in Miya, they could justifiably be derived through MONOPHTHONGIZATION.

⁹Virtual absence of word internal mid vowels and rising diphthongs seems like an anomalous gap. These rimes are fairly common root final, and other VC sequences are not unusual word internal. It is possible that word internal **ay* and **ay* have raised to become the rimes *ləy* = [*i:*] and *ləw* = [*u:*], which are quite common. There are a few items related in this way, viz. the locative formative *éé = fy* (8:§6.3), the "sequential conjunction" *j-éé = jfy* (14:§3.2.2), and *mèlmiy* 'Miya', seen with the mid vowel in *mèmee-niy* 'Miyas, Miya people' but with *iy* in *miy dzəhaldzaku* 'Miya man/woman' and *vəna míy* 'Miya language'.

pyòo-na (m), pyòo-ya (f), pyòo-niy (pl)	'white'	cf. 8:§3 for suffixes
dàbakoo-dzəhə (m), dàbakoo-dzaku (f)	'blind person'	cf. 8:§2.2 for affixes
còonákə̀ = cónákən	'now'	< ? + <i>nákən</i> 'this'
sàaree-na (m), sàaree-ya (f), sàaree-nyi (pl)	'distant'	< <i>sàar</i> 'distance'
mèemee-niy	'Miya people'	reduplicated root
lèelfibi	'small hut'	< <i>lày</i> 'child, small ... + ?'
hèevəná	'last year'	cf. PC * <i>bəna</i> 'year'

There are a few words which seem always to be pronounced with a mid vowel in word final, prepausal position as well as utterance medial:

ámamóo	'side (of body)'	(no known alternates with [aw])
ámóo	'tiger nuts'	(no known alternates with [aw])
ároo	'begging'	cf. <i>ràw</i> 'beg, beseech'
ávoo	' <i>Loranthus pentagon</i> '	(no known alternates with [aw])
áwóo	'courtyard'	(no known alternates with [aw])
shóoshóo	'rooster'	cf. pl. <i>shóoshúwwawàw</i>
hòo	'yes'	(no known alternates with [aw])
ngèe	'forked pole'	(no known alternates with [ay])
máamée	' <i>Cassia tora</i> '	(no known alternates with [ay])

Most of these are monosyllabic roots—the initial *á-* on several of them is a prefix (8:§2.4.1), 'rooster' is a reduplicant. 'Side' looks as if it may be a compound from *ámar* + *nóo*, though neither of these occur independently as far as I know (but cf. Hausa *máaràa* 'pubic area'). '*Cassia tora*' may be *má* (f) 'possessor of' (10:§5, esp. §5.1.4) + *mày* 'hunger'—this is a plant which grows wild (Hausa *tafasa*) and which is sometimes used for sauce stock. The only monosyllabic roots which I consistently transcribed with [aw] are *sàw* 'tail' and *zhàw* 'rope'. There are a number of verbs with the root shape *Caw*. The only environment where a verb can appear in its simple root shape is the singular imperative, and imperatives of /*Caw*/ verbs are consistently pronounced [Coo], e.g. *lòo* 'pluck (it)!', *kòo tliwiy* 'fry meat!', *sòo sòo* 'rest!' (with cognate complement—7:§5). In contrast to the predominance of [oo] over [aw] as the syllable rime in monosyllabic roots,¹⁰ there are many roots that are consistently pronounced with [ay], e.g. *áfay* 'zorilla', *áway* 'jujube', *d'ày* 'mountain', *káy* 'fighting', etc. In short, there would be unexplained exceptions if all mid vowels in the words discussed here were derived from /*ay*/ and /*aw*/, but mid vowels as independent vocalic nuclei are quite marginal as contrastive units.

Most Miya people are fluent speakers of Hausa and borrow freely from Hausa. Hausa has mid vowels in contrast with diphthongs, and Miya speakers usually borrow words with the original Hausa vocalic nuclei:

dòoyá	'cassava'	(<i>dóoyàa</i> 'yam' in Hausa)
góoròo	'kola nut'	(= Hausa, though final -ò is short in Hausa)
ároo	'loan'	(= Hausa)
bàakoo dzəhə/dzaku	'stranger (m/f)'	(<i>bàakóo</i> in Hausa)

¹⁰Monosyllabicity is crucial here. The diphthong [aw] is common in prepausal polysyllabic words, e.g. nearly all noun plurals (8:§2.3.1) and all "participles" of verbs (4:§2.1.1) end in [-aw] before pause.

áKandò	'Kano'	(<i>Kàndò</i> in Hausa)
áwree	'marriage'	(<i>áurée</i> in Hausa)
món goodèe súw	'I thank (you)'	(<i>góodèe</i> in Hausa)
árèwá	'north'	(= Hausa)
shéegèe	'bastard'	(= Hausa)
péepáy	'woven pot cover'	(<i>fáifái</i> in Hausa)

Even though Miya usually borrows words with the Hausa vocalic nuclei, these nuclei are affected by the Miya rule-governed relationships between mid vowels and diphthongs. Note that in the last item above, *péepáy*, the internal Hausa diphthong has been monophthongized. Miya does not tolerate contiguous vowels (see §2.2.4), and in the case of Hausa loans ending in mid vowels, vowel hiatus is resolved by treating the mid vowel as a VG sequence, as in the following examples (compare the italicized words to their citation counterparts above):

dò bəla gooráw-ay	'they untie the (package of) kola nuts' (<i>góoròo</i>)
Sjn untie kola-Tot	
njə s-áa bàa-z(a) áaKánaw-ày	'she will go to Kano' (<i>áKandò</i>)
she Tot-Ipl go-ICP Kano-Tot	
súw àwray-áy	'just marriage' (<i>áwree</i>)
góodàyakó	'thanking' (<i>góodèe</i> 'to thank')

2.2.4. Vowel elision. Vowels may not abut to form contiguous syllable pulses. In an underlying $V_1 + V_2$ sequence, V_2 can only be *a(a)*, i.e. no morphemes begin in *a* or a mid vowel. If V_1 is a mid vowel, it is resolved as an *aG* sequence before another vowel, as in the examples of Hausa borrowings immediately above. Other vowel sequences are resolved by the following rule:

VOWEL ELISION: $V \rightarrow \emptyset / _ V$

i.e., the first of two abutting vowels is elided. In cases where the vowels are both /*a(a)*/, the direction of elision is indeterminate, but because /*a*/ always elides in /... *a*(*a*) .../, it is easiest to formulate the rule as always operating on V_1 .¹¹

/à rakə átar/	→ ... rakaatar	'he chased a squirrel'
/à mbəshi ákuw/	→ ... mbəsháakuw	'he extinguished the fire'
/bəsə ay/	→ bəsay	'wash (it)! + Tot
/sóm bá tsiyúwsə aa Kasham/	→ ... tsiyúwsaa ...	'the man that Kasham asked'
/lè aa bíy zàra átar/	→ taa bíy zàraatar	'he will call the squirrel'
/bətá' ay/	→ bətáy	'untie (it)! + Tot
/lèn s-áa tya ándázhə ay/	→ ... tyaandázhay	'they will kill a hippo' + Tot
/ám má tsiyaza aa Kásham/	→ ... tsiyazaa ...	'the woman that Kasham asked'
/aa áGàruw/	→ áaGàruw	'in Bauchi'

¹¹I mark tones in the examples below but do not attempt to account for them here. The surface tone patterns fall out from general tonal rules, laid out in Chapter 3.

In all the examples where V_2 is initial a - of a noun, the resulting vowel is long $-aa$ -, making it look as if the two vowels coalesce as a long vowel rather than V_1 eliding. However, lengthening here is a property of the \acute{a} - prefix found on many nouns (8:§2.4.1) rather than a general outcome of vowel hiatus, as can be seen by the fact that this vowel is lengthened phrase medial even when preceded by a consonant, e.g. $[\acute{a} \text{ zar } \acute{a} \text{ tar}] \rightarrow [\dots \text{ z}\acute{a} \text{ raatar}]$ 'he called a squirrel', $[\acute{w}\acute{a} \text{ n } \acute{a} \text{ nd}\acute{a} \text{ zh}\acute{a}] \rightarrow [\acute{w}\acute{a} \text{ naand}\acute{a} \text{ zh}\acute{a}]$ 'like a hippo'. The hiatus of a vowel with the Totality clitic $-áy$ (7:§2.1), for example, does not result in a long $-aa$ -.

See 3:§6.4, esp. fn. 29, for discussion of issues of phonological phrasing, tones, and vowel elision.

2.2.5. Neutralization of phrase final vowel length. The distinction between long and short vowel nuclei is neutralized before pause. All final vowels are pronounced *without* the glottal closure characteristic of prepausal short final vowels in West Chadic languages such as Hausa (Carnochan 1952) or Bolanci (Schuh n.d.b). Length neutralization includes not only the $/aa/$ vs. $/a/$ distinction but also the iy vs. i (< palatalized $/\acute{a}/$) and uw vs. u (< labialized $/\acute{a}/$) distinctions. Thus, there is no audible difference between the final segments of words like $dl\acute{a}rk\acute{y}$ 'chicken' and $ky\acute{a}d\acute{i}$ < $k\acute{a}d\acute{a}/$ [palatalized] 'giant rat'. Most words which end in $/a/$ have short $[a]$ in all environments. The only Miya words which invariably end in long $-aa$ utterance medially are prepositions, e.g. $\acute{a}n\acute{a}$ 'with (accompaniment)', $\acute{a}a$ 'with (instrument)'. By definition, these words cannot appear in prepausal environments. This leaves only a few verbs where final long $/aa/$ alternates with final short $/a/$ medially. For reasons of analytical simplicity discussed in 4:§1.1.3 and because of well-founded arguments for minimum word length (§3.2 below), I take these verbs to end in $-aa/$ before pause, but they do not contrast phonetically with final $/a/$'s which are invariably short, i.e. the final $/aa/$ in a word such as $n\acute{j}\acute{a}a$ 'rebel!' does not contrast phonetically with the final $/a/$ in a word such as $b\acute{a}n\acute{a}$ 'yesterday'.

3. Syllable and Word Structure

3.1. Syllable structure. Setting aside the few marginal cases where apparent underlying mid vowels form syllable nuclei (§2.2.3.2), Miya permits only the following syllable types:

CV, Caa, C_1VC_2 in any environment
 a, aa in initial position in nouns and grammatical formatives

There are constraints on C_2 in closed syllables and on appearance of $/\acute{a}/$ in any syllable type. These constraints are discussed in §3.1.1 and §3.1.2 respectively.

3.1.1. Constraints on syllable codas. The syllable final consonant in CVC syllables is limited to the sonorant consonants $/m, n, r, l, y, w/$, with the following further restrictions:

- geminate sequences do not occur within a root, though geminates are possible across morpheme boundaries, e.g. $gw\acute{a}b\acute{a}san-na$ 'thick' (m)—cf. $gw\acute{a}b\acute{a}san-ya$ 'thick' (f)
- liquids cannot be C_2 in a sequence with a sonorant consonant (nasal or liquid) as C_1

- nasals must agree in point of articulation with a following consonant; moreover, $/m/$ and $/n/$ are both in free variation as $[m, n]$ before pause (§1.2.1)
- nasals do not form separate syllable codas preceding voiced stops and voiced affricates, i.e. the written sequence [+nasal][+voice, -continuant] is always a phonological unit (§1.1.3)
- though prenasalized consonants are phonological units, they may not form the onset of a word internal postconsonantal syllable, e.g. though $/mb/$ is an acceptable syllable onset and both $\dots rm \dots$ and $\dots rb \dots$ are acceptable intervocalic sequences, $\dots rmb \dots$ is not an acceptable sequence¹²
- $/y, w/$ appear preconsonantly within a root only as part of the underlying sequences $/\acute{a}y, \acute{a}w/$ ($\rightarrow [i:, u:]$), i.e. the diphthongs $/\acute{a}y, \acute{a}w/$ appear only in final position in roots (§2.2.3.2)

Aside from these restrictions, no obvious principles limit what the consonants may be in a sequence $[C, +sonorant] + C$. The table below provides examples of all the word internal CC sequences found in my materials. Shaded boxes represent sequences which would be ruled out by the restrictions above. Most, if not all the blank boxes are probably accidental gaps, representing otherwise acceptable sequences. The one strangely systematic gap is the absence of m + $[C, +labial]$ sequences (mp, mb , etc.). Such sequences do occur across morpheme boundaries (§1.2.1).

	CVm__	CVn__	CVr__	CVl__	CVy__	CVw__
p			t\acute{a}rpak\acute{s}	t\acute{a}lp\acute{a}		
			'embracing'	'hoe'		
t		dl\acute{a}nt\acute{s}	s\acute{a}rt\acute{a}h\acute{a}		\acute{a}k\acute{a}yt\acute{a}	
		'lion'	'lie'		'difficulty'	
k		[k\acute{u}ŋk\acute{u}l]	v\acute{a}rk\acute{a}		'\acute{y}k\acute{a}n	dz\acute{u}wk\acute{a}
		'cap'	'child'		'here'	'kapok tree'
'						
b			b\acute{a}rb\acute{a}tl\acute{a}			
			'tortoise'			
d			ts\acute{e}rd\acute{y}			\acute{a}d\acute{u}wd\acute{u}w
			'gap'			'sugar ants'
g			m\acute{b}\acute{e}rgu	p\acute{a}lgway		
			'ram'	'Sodom apple'		

¹²C + NC may be possible across word boundaries. I have transcribed many examples of this sequence, e.g. $m\acute{a}n \text{ mb}\acute{a}a \text{ s-}\acute{a}acan\text{-}\acute{a}y$ 'I finished the work', but all my examples involve a nasal as the first C. This may simply be absorbed into the nasal component of the prenasalized C. Crucial cases would be $\dots r + NC$ or other sequences where the first C is not a nasal.

¹³I cite this word in §2.2.3.2 as the only example I found of a word internal rising diphthong ($[\acute{a}y]$ or $[\acute{a}w]$). The $\acute{a}y$ is actually root final, $-t\acute{a}$ being a suffix (8:§2.4.2). Moreover, this is the only example I found of a word internal sequence $y\acute{t}$ (there are no words containing $\dots iy\acute{t} \dots$), suggesting that $y\acute{t}$ is a systematically excluded sequence.

cont.	CVm__	CVn__	CVr__	CVl__	CVy__	CVw__
b			ángárbàcə 'black ants'			
d'		ádžànd'ar 'bedbugs'	kərdə 'thirst'		díydáy 'hyrax'	lùwɔfə 'occiput'
ts		rəntsákə 'stomach ache'			díytsə 'grain'	
c						cùwcuw 'warm'
dz						
j			ndəɾjim 'monster'		ríyjà 'well'	
f		[yìŋfə] ¹⁴ 'plum tree'	tlərfə 'forest'	gwəlfə 'chieftancy'		
s		ghənsə 'God'	ghərsə 'cane rat'			
sh						vùwshi 'trash heap'
tl					ndìbiytlə 'shallow'	
h		[cáŋhə] 'heart'	shìrhə 'jealousy'		áníyhə 'medicine'	
v					málvə 'chief'	
z			gwə̀rzakə 'growing up'			
zh						
dl		ádlándlám 'wasp'				
m			átikwìrma 'partridge'	tálmáy 'worm'		
n			ámarnóo 'side (body)'			rùwnakə 'cooling off'
r					zìyrakə 'passing'	kùwrakə 'reaping'
l						

¹⁴Cf. fn. 2 for the [ŋ] here.

cont.	CVm__	CVn__	CVr__	CVl__	CVy__	CVw__
y		shìnyákə ¹⁵ 'sucking'	tsəryákə ¹⁵ 'stepping'			βúwyákə 'breaking'
w			ghə̀rwan 'aardvark'			

3.1.2. Position of /ə/ in syllables. The way consonants and the vowels /a, aa/ are combined within morphemes is subject only to general constraints on syllable structure given at the beginning of §3. Lexical position of /ə/, on the other hand, can be 100% predicted on the basis of the following two constraints:

- (1)
$$\begin{array}{c} *σ \\ \wedge \\ \dots C \\ \text{[-son]} \end{array}$$
- (2)
$$\begin{array}{c} *σ \\ \wedge \\ \dots CC \dots \end{array}$$

Condition (1) disallows obstruents in syllable coda position, i.e. only sonorant consonants (nasal sonorants, liquids, glides) may close syllables (§3.1.1). Condition (2) disallows syllables with consonant clusters in any position, i.e. *\$CC, *CC\$, *CCC (\$ = syllable boundary). Referring to these constraints, we may formulate a condition which predicts the positioning of /ə/:

- (3)
$$\begin{array}{c} σ \\ \wedge \\ C_1 \quad ə \end{array}$$
 where C₁ is the first consonant in an offending sequence as defined by constraints (1) and (2)

By condition (3), /ə/ occurs only in environments where absence of a vowel would lead to impermissible syllable structure. Constraints (1) and (2) are hierarchically ordered. The constraint against syllables ending in an obstruent must first be satisfied. If, after satisfying that constraint, there are consonant sequences disallowed by constraint (2), these consonant sequences are separated by /ə/, working left to right. Cf. the following examples:

- kə̀vəkə 'monitor' only obstruents and no "full vowels"; all consonants followed by /ə/
 tá̀tə̀fáy 'beer strainer' /ə/ required after *t* even though ...*tf*... is preceded and followed by "full vowels" and would therefore not be part of a CCC cluster
 vəkə 'child' initial *v* and final *k* require vowels; permissible *rk* sequence left intact
 dlántə 'lion' same analysis as for *vəkə*; permissible *nt* sequence left intact
 bə̀rbə̀tlə 'tortoise' vowel required after initial and medial *b*; permissible *rb* sequence left intact
 rə̀fə 'sauce' vowel after final *f* required, but vowel also required in #C__C, even though ...*rf*... is a permissible sequence

¹⁵Cy is a frequent realization of consonants in morphologically palatalized words (§4). However, we can tell that the *y*'s in *shìnyákə* and *tsəryákə* are "real" *y*'s by the tones. These are gerunds of verbs from a class which has the tone pattern [- -] for verbs with a light first syllable but [_ -] for verbs with a heavy first syllable (4:§2.2.1). The tones show that the first syllables of the verbs here are CVC.

<i>bàrəm</i> 'remainder'	vowel required after <i>b</i> , but vowel also required in C__C#, i.e. /ə/ rectifies the first impermissible structure working left to right, even though * <i>bàrmə</i> , with /ə/ in final position has a permissible sequence ... <i>rm</i> ...
<i>tìyin</i> /tàyən/ 'tooth'	same comment as for <i>bàrəm</i> , i.e. * <i>tìynə</i> contains a permissible sequence ... <i>yn</i> ..., but C__C# sequence is rectified first, leaving permissible final - <i>n</i>
<i>bálənkày</i> 'baboon'	following initial CV, a sequence <i>lnk</i> is encountered; both ... <i>ln</i> ... and ... <i>nk</i> ... are permissible, but /ə/ appears after the first consonant of the offending sequence, working left to right

The inverse of the condition (3) is that /ə/ does *not* show up in environments where constraints (1) or (2) would not otherwise be violated. Thus, *dlàr* 'hunting' with a "full vowel" /a/ internally and word final *r* violates no constraints, excluding **dlarə* as a possible word. Likewise, there could be no words **vàrakə* or **dlənətə* parallel to the words for 'child' and 'lion' above since the intervocalic sequences *rk* and *nt* violate no constraints. The vowels /a, aa/, on the other hand, can appear in environments which would not violate syllable structure constraints, even were the vowels absent, e.g. *məna* 'how much?' (cf. *mən* 'me'), *ghəmətsə* 'laughter' (cf. *ghəntsə* 'to laugh'), *dùwakə* 'horse' (cf. *dzùwka* 'kapok'), *càratuwa* type of eye disease (cf. *sàrtəhə* 'lake').

Some verbs show an alternation with or without ə depending on whether they have vowel-initial suffixes or not. The relevant suffixes are -*akə* gerund suffix (4:§2.2.1), -*a(w)* participle suffix (4:§2.1.1), and -*a* indirect object suffix (4:§1.1.2); phrase final *sáy* in the left-hand column is the Totality marker—7:§2:

Without suffix		With suffix	
<i>mən</i> <i>kàrən sáy</i>	'I scooped up'	<i>kəm-akə</i>	'scooping up'
<i>à mbələn-ya sáy</i>	'she winked at him'	<i>də kəm-a gaangan</i>	'they gather the drums'
<i>à dawun-ya sáy</i>	'I looked for him'	<i>mbəl-m-akə</i>	'blinking, winking'
		<i>d-àa doon-a-tlən</i>	'he was seeking /dawn-/'
		<i>həm bá táw</i>	food for them'
<i>ábíy rùwun sáy</i> ¹⁶	'the water cooled off'	<i>rùwnakə</i>	'cooling off'

In contrast to these alternations in the verbal system, conditions on the position of /ə/ in the nominal system seem to apply to roots before affixation. There are both vocalic prefixes and suffixes on nouns, and in both cases, /ə/ falls in the positions it would occupy were those affixes not present. Below is an exhaustive list from my materials of nouns with an *á-* prefix where the first two consonants could form a permissible sequence (see 8:§2.4.1 for discussion of the prefix):

¹⁶There is some variation when C₁ of the (potential) sequence is a glide. Thus, alongside 'cool off', I found the roots *būwy-*, *kuwr-* 'cut (grass)', and *ziyr-* 'pass' where the CVGC structure remains intact, e.g. *mən būwýsə suw kwəmbal-áy* 'I broke a stick', *būwýakə* 'breaking', *mən kùwr sáy* (no final ə in my transcription?) 'I cut (grass)', *kùwrakə* 'cutting (grass)', *à ziyrə sáy* 'he passed', *ziyrakə* 'passing'. See comments below on nouns with parallel structure (cf. fn. 18).

<i>á-múkwa</i>	'dry season'	< <i>mùku</i> 'sun'
<i>á-məsəm</i>	'dream'	cf. Kariya <i>musən</i>
<i>á-rəhə</i>	'bowstring'	cf. Bolanci <i>rəwo</i>
<i>á-rədlə</i>	' <i>Anona senegalensis</i> '	cf. Kariya <i>ruwe</i>
<i>á-ləpən</i>	'sky'	
<i>á-ləbàasə</i> ¹⁷	'onion'	

There are two types of vocalic suffixes to nouns which do not cause resyllabification, viz. the -*a* suffix in feminine "direct genitive" constructions (10:§3.1.1) and the plural -*aCaw* suffix (8:§2.3.1).¹⁸

<i>ndùwul-a ghám</i>	'skull' (lit. 'pot-of head')	* <i>ndùwl-a</i> ...
<i>ndùwul-álàw</i>	'pots'	* <i>ndùwl-álàw</i>
<i>kìyim-ámàw</i>	'crocodiles'	* <i>kìym-ámàw</i>
<i>wùrum-ámàw</i>	'knees'	* <i>wùrm-ámàw</i>
<i>səram-ámàw</i>	'knives'	* <i>sərm-ámàw</i>

I have referred to the *lexical* presence of /ə/. There are two reasons for assuming that /ə/ is a lexical vowel rather than a vowel nucleus which is present only to preserve syllable structure. First is the fact illustrated immediately above, viz. that nominal root structure is preserved even when affixes are added which would permit resyllabification. However, facts from verb paradigms provide counterevidence. Second, and more important, is the fact that syllables with /ə/ as the nucleus can be independent tone bearing units, e.g. *rənəkə* 'being abundant' (H on last syllable) vs. *rənəkə* 'copulating' (L throughout), *càngú* /càngwə/ 'Abdim's stork' (downstepped H on second syllable) vs. *càngu* 'billy goat' (L throughout), *wútə* /wətə/ 'one' (H on first syllable, L on second), *áníyhə* /áníyhə/ 'medicine' (downstepped H on second syllable, L on last syllable), *támáku* /támákə/ 'sheep' (H on first syllable followed by downstepped H), etc. Unlike many Chadic languages, Miya has no T₁+T₂ contour tones on CVC syllables, for example as in Hausa *mùtùnm* [_ v] 'person'. It cannot therefore be the case that ə is "syllable preserver" which happens to "pick up" a lexical tone which would otherwise have fallen on a syllable coda.

3.2. Word structure. The minimal Miya word has two moras. A mora is a unit of metrical weight. A light syllable (V̄, C̄V) has one mora, a heavy syllable (VV, VC, CVV, CVC) has two moras. The number of moras per word is thus calculated by adding the moras in all the syllables of that word, e.g. *kám* 'hand' and *pəkə* 'arm' have two moras

¹⁷'Onion' is borrowed, possibly from Hausa *àlbasàa*, though the tones and vowel lengths do not jibe with those of Hausa. The initial *a-* was probably original in the donor language but has been reinterpreted as a prefix in Miya, leading to the presence of ə after what is interpreted in Miya as the root initial *l-*. I should point out that /l/ as C₁ in consonant sequences is somewhat ambivalent. Thus, I have transcribed *ndələkə* 'resin' with ə breaking up what should be a permissible *lk* sequence, and I have varied in transcribing *málwə* or *málwə* 'chieftainship' with and without a ə breaking up the *lv* sequence.

¹⁸As with verbs (cf. fn. 15), there is some variation when C₁ of the (potential) sequence is a glide. Although noun plurals always seem to retain the CəGC root structure, i.e. 'crocodiles' would never be pronounced **kìym-amaw*, the genitive construction allows ...əGC-a.... Thus, alongside *tìyin* 'tooth', I found *tìyn-aama* 'our tooth', *tìyn-a Kasham* 'Kasham's tooth'.

each; *láahə* 'jackal', *lùwdə* 'occiput', *kəvən* 'buffalo', and *málvə* 'chief' have three moras each; etc. The following are examples of minimal Miya words.

Min. word	Moras	
áa`	a-a	'from'
màa	a-a	'what?'
à <i>taa</i> sáy	a-a	'he ate (it)'
'íy	i-y	'dog'
kóm	ə-m	'hand'
à <i>már</i> say	a-r	'he received (it)'
càngə	a-ə	'billy goat' (<i>ng</i> is a phonological unit—§1.1.3)
tízhə	i-ə	'guinea worm'
à <i>bəta</i> sáy	ə-a	'he untied (it)'

All Miya formatives comprising a single mora are clitics, e.g. the à Perfective proclitic seen in the verbal examples above (5:§2.1.3), the verbal proclitic *də* (5:§2.2.9), the negative *má* (6:§3), most pronominal enclitics to verbs (5:§4), the genitive linkers *ná* (m) and *tá* (f) (10:§3.3.1), the Previous Reference Marker *ká* (9:§2.1), and several others.¹⁹ The only non-clitic items which can appear in a single moraic form are CV verbs, e.g. *tsà-ya* 'give (it) to him!' (singular imperative). These verbs appear in this form only when serving as host to a clitic, with the verb + clitic construction functioning as a minimally bimoraic word. Otherwise, these verbs have bimoraic form, e.g. *tsáa mbərgu* 'give a ram (away)!' (see 4:§1.1.3 for details of CV verb forms).

A number of phenomena in Miya take account of the moraic structure of words. One example is length of the vowel in CV verbs noted in the preceding paragraph. Another case from the verbal system is in pluractional verb formation (7:§3). For example, CV verbs have a pluractional form *CəCa*, e.g. à *pəpa* sáy 'he collected' (< *pa*). With the mora added by the reduplicated syllable, the verb final vowel remains short in the environments where it would have been long in the CV form. Within the nominal system, words of two moras are more restricted in their tonal patterns than words with more moras (3:§2.2).

There is no upper limit, in principle, on the number of moras/syllables in a word, but the longest words I found are nouns of 5 syllables and 6 moras, e.g. *ágə dangəlùw* 'millipede'. These are undoubtedly derived or compound forms, but their internal structure is not transparent in modern Miya, aside from a nominal prefix *á-* (8:§2.4.1). The longest native verb roots I found have three moras, e.g. *rəvəzə* 'be fat', *ghəntsə* 'laugh', *byàara* 'fart'. Interestingly, pluractional formation processes of verbs operate so as to retain the *maximum* of three moras. See 7:§3 for discussion.

¹⁹In this grammar, I write most clitics other than pronominal enclitics as separate words. My primary influence in adopting this practice is the standard Hausa orthography, which writes syllabic clitics (including pronominal enclitics) in this way. In Miya, some pronominal clitics merge phonologically with their hosts, making it impossible to write clitic and host as clearly separate words. For consistency, I have written all pronominal enclitics, whether phonetically merged with their hosts or not, as hyphenated additions to their hosts.

4. Morphological Palatalization

The consonant inventory of §1.1 lists only /c, j, sh, zh/ in the palatal series. The underlying vowel inventory in §2.1 lists only /ə, a, aa/. Yet in Miya, every consonant other than /ts, dz, s, z/ has a phonetically palatalized variant, e.g. [dʲ, kʲ, mʲ] (written *dʲy, ky, my*, etc. for typographical convenience). The phonetic vowel inventory includes [o, ε, æ] ([ε] is written as "e" below for typographical convenience).

A number of facts show that these phonetically palatalized or fronted segments are the effects of a word level prosodic feature [PALATALIZED] rather than being members of an expanded inventory of underlying segments. The phonetic manifestation of [PALATALIZED] is itself one of the reasons for viewing it as a word level feature rather than a feature of individual segments. [PALATALIZED] shows variation in its phonetic effects both for any particular word and from word to word. Following are the phonetic effects that may signal the presence of [PALATALIZED]:

Underlying	Under [PALATALIZED]
/ts, dz, s, z/	→ c, j, sh, zh
other C	→ Cʲ, e.g. <i>dʲy, ky, my</i> , etc.
/ə/	→ i
/a/	→ e (phonetically [ε])
/aa/	→ ææ

Below is a rather random list of [PALATALIZED] nouns, written as I originally transcribed them during elicitation. These show the range of effects of morphological palatalization.

<i>dʲámádʲyam</i>	'bitterness'	<i>tyúwlaalím</i>	'cattle egret'
<i>títelúw</i>	flute sp.	<i>émbyà'ala</i>	'skink'
<i>títýál</i>	'fruit bat'	<i>témbír</i>	'roan antelope'
<i>bíder</i>	'viper'	<i>tyámátʲyam</i>	'stench'
<i>ágídàaderuw</i>	'dung beetle'	<i>dèrwétli</i>	'leopard'
<i>ázhipiy</i>	'tears'	<i>ágyír</i>	'hole'
<i>éwíhi</i>	'load'	<i>líwér</i>	'fig tree'
<i>tliwiy</i>	'meat'	<i>mèmiy</i>	'ulcer'
<i>təmyar</i>	'forehead'	<i>éryúw</i>	'pus'
<i>ávyáadʲi</i>	'buttocks'	<i>mbyáædlí</i>	' <i>Cucumis melo</i> '
<i>lyæælyuw</i>	'clitoris'	<i>ndyææn</i>	'all'

These examples show a variety of consonantal segments both palatalized and unpalatalized (*t/ty, mb/mby llly*) and of all three vowels in both palatalized and unpalatalized form (*ə/i, a/e, aa/ææ*). Note also fronted [w] in several words. I transcribed numerous words in more than one way on different occasions:

<i>kyánúw = kénúw</i>	'smoke'
<i>ápetlám = ápyatlám</i>	'hip'
<i>'íji = 'íjə</i>	'mortar'
<i>rédʲyadʲi = ràdʲyadʲi</i>	'dampness, cold'

Morphological palatalization, to my knowledge, is unattested elsewhere in West Chadic. Among works on North Bauchi languages for which we have more material than word lists, Skinner (1979) does not mention it for Pa'a nor does Jungrathmayr (1966/67) or Newman (n.d.) for Warji, which is particularly closely related to Miya. No descriptions of West Chadic A languages or of West Chadic B languages outside North Bauchi mention it. It is, however, quite widespread in the Biu-Mandara group, particularly Biu-Mandara A. It has been described for Guḏe (Hoskison 1975), Zulgo (Haller 1980), and Podokwo (Jarvis 1981). I have also found it in Mofu (Schuh n.d.c), reformulating the analysis of Barreteau (1978) and in Kaḏa (= Gidar), a Biu-Mandara B language (Schuh 1982b). The most complete description of morphological palatalization for any of these languages is that of Hoskison (1975) for Guḏe. In Guḏe, morphological palatalization is a consistently applied process marking certain morphosyntactic functions, including formation of noun plurals, marking of completive aspect, and marking of the ventive extension (Hoskison 1983). Hoskison (1975:40-41) gives an elaborate description of the phonetic effect of palatalization, which, in summary, works along the following lines:

- Consonants are divided into groups from most palatalizable to least palatalizable, viz. (1) coronal sibilants, implosives, nasals > (2) other coronals > (3) other consonants aside from /y/ > (4) /y/. Consonants of type (1) *must* be palatalized in palatal environments and type (4) cannot be.
- A root in a palatalizing environment must palatalize at least one consonant, beginning with obligatory palatalization of the consonant in that root which is highest in the palatalizability scale.
- Vowels are obligatorily or optionally fronted in the environment of a palatal(ized) consonant, following a rather complex routine (p. 28). (The underlying vowel system of Guḏe is much like that of Miya.)

I have summarized Hoskison's description because the similarities and differences between Guḏe and Miya are instructive. First, as in Guḏe, the [+coronal] sibilants of Miya (though not the [+glottal] or [+nasal]) must be palatalized in a [PALATALIZED] word. In many such words, there are no further signs of [PALATALIZED], e.g. *ácám* 'work', *ghájà* 'when?', *shàm* 'penis', *ázham* 'ground hornbill'. Second, as in Guḏe, Miya permits considerable variation between fronted and non-fronted vowels under [PALATALIZED]. Hoskison describes the vowels as being conditioned by contiguous consonants and accounts for vocalic variation in terms of consonantal variation. This would be possible for Miya, but I see no advantage to an account using segmental conditioning as opposed to saying that [PALATALIZED] affects both consonants and vowels. The main difference between Miya and Guḏe is that Miya seems to be freer in allowing palatalization to affect several segments in the same word. In the spirit of Hoskison's description I state the palatalization process for Miya informally as follows:

PALATALIZATION: In a word marked as [PALATALIZED], obligatorily change [+coronal, +strident, -lateral] segments to [-anterior]; optionally in such words and obligatorily in any other word, palatalize one or more consonants and/or front one or more vowels.

An investigation of a large number of tokens of individual words and a careful study of exact phonetic realization of many [PALATALIZED] words would lead to a more exact description, e.g. there seems to be a strong preference for [i] rather than [ə] in word final position.

Unlike Guḏe and other Central Chadic languages, there are no lexical or morphological features that will predict which words will be [PALATALIZED] and which will not. There are even minimal pairs distinguished only by this feature:²⁰

non-[PALATALIZED]		[PALATALIZED]	
làbadə (m)	'shoulder'	lébedi (m)	basket sp.
mər (f)	'sesame'	mìr (m)	'money'
átóm (f)	'song'	átím (f)	'nose'

Lexically, aside from the fact that non-[PALATALIZED] words far outnumber [PALATALIZED] words, there are no correlations with other parameters. In a sample of 327 nouns, the following figures emerged:²¹

masculine non-[PALATALIZED]:	121 (37%)
masculine [PALATALIZED]:	51 (16%)
feminine non-[PALATALIZED]:	125 (38%)
feminine [PALATALIZED]:	30 (9%)

[PALATALIZED] verbs are even less common than [PALATALIZED] nouns. Out of a total of 295 verbs, I found only 18 [PALATALIZED] roots, distributed as follows (see 4:§1 for discussion of verb classes):²²

H L Ø:	7
H H Ø:	1
L Ø:	1
H L -a:	1
H H -a:	2
L -a:	6 (including two monoconsonantal roots)

Miya has a fairly large number of words which alternate between non-[PALATALIZED] and [PALATALIZED] forms of the same root. *Deverbal nouns* (4:§2.3) compose the major area of such alternation. There are two main types of deverbal nouns, one which adds a

²⁰The immediate response to seeing such lexical minimal pairs is that the vowels are in contrast, i.e. contrary to the analysis of vowels in §2, there are vowel phonemes /e/, /i/, etc. Such a claim would not account for the fact that the non-palatalized words never vary in pronunciation whereas the palatalized words do, e.g. for 'basket', at various times I transcribed *làbadi*, *lébedə*, and, for the plural, *lyábyadadàw*; for 'nose', alongside *átím*, I transcribed *étím bíy* 'spring' ('nose [of] water').

²¹I counted only singular nouns where the criteria for presence or absence of [PALATALIZED] were fairly clear. Thus, I did not include words such as 'iy' 'dog' or 'yàw' 'madness', where there were no criteria at all, words like *kiyim* 'erocodile' where apparent evidence of [PALATALIZED] could have another explanation (here, assimilation of the vowels to /y/), or words like *cámázə* 'night', where there were conflicting criteria (here, [+palatal] c vs. [-palatal] z in the same word).

²²This count excludes Hausa borrowings, many of which have palatal phonemes in Hausa, borrowed as such into Miya.

prefix /a-/ to the root, the other which takes the form CVCaC from the three root consonants or, if there are only two root consonants, the first two plus the second reduplicated. Most verbs do not have such deverbal nouns, but among those that do, about half of the /a-/ prefix type and about two-thirds of the CVCaC type are [PALATALIZED] (see 4:§2.3.1 for a complete list of both types):

/a-/ prefix: 13 [PALATALIZED], 12 non-[PALATALIZED]

ázhózhə 'flaying' < zəza
 átlyám 'shaving' < tləma
 but cf. átságə 'sitting', not *ácágə < tsəga

CVCaC: 15 [PALATALIZED], 8 non-[PALATALIZED]

rāvazhi 'fatness' < rəvəzə
 'ísháshi 'satiation' < 'śśś
 but cf. tàmasə 'itching', not *támashi < tśnsś

A second morphological area where the [PALATALIZED] alternation exists is in adjectives. For two adjectives, the masculine form is non-[PALATALIZED] but the feminine and plural are [PALATALIZED]. Among other adjectives, some are non-[PALATALIZED] in all forms and others are [PALATALIZED] in all forms. Transcriptions are as in my notes.

Masculine	Feminine	Plural	
gàbə-na	gyàbi-ya	gyàbóo-niy	'small'
gàr-na	gyàr-ya	gèruw-niy	'big, important'

but cf.

tsəntsən-na	tsəntsən-ya	tsəntsən-niy	'sour' (all non-[PALATALIZED])
byàtlyama-na	byàtlyama-ya	byàtlyama-niy	'unripe' (all [PALATALIZED])

Finally, I have found the following lexically related pairs:

[PALATALIZED]	non-[PALATALIZED]	
jifa-na (m)	dzàfə (pl)	'husband; male'
kyàrà-ti 'height'	kàrakara	'tall'

Chapter 3

TONAL PHONOLOGY

1. Miya Tones and Tone Marking

1.1. Miya tone basics. Miya has what Welmers (1973:82) refers to as a "terraced level" tone system. As in most such languages, when contiguous syllables bear different tones, there are two possible descending contrasts, from H(igh) to downstepped H or from H to L(ow), but there is only one ascending contrast, from L to (downstepped or downdrifted) H. Thus, over two tone utterances in isolation, only the tonal patterns in (i-v) are possible; the patterns in (vi) are excluded. The tone marking diacritics are explained in §1.2; ¹H = downstepped H after H:

- (i) láahə [— —] (H H) 'jackal'
 (ii) mbərgu [— —] (L L) 'ram'
 (iii) dləntś [— —] (H ¹H) 'lion'
 (iv) wútə [— —] (H L) 'one'
 (v) dūrđúr [— —] (L H) 'heron'
 (vi)¹ *[- —], *[- —], *[- —], *[- —]

As in other terraced level languages, there is no limit in principle on the number of H ¹H sequences which may appear in an utterance. Utterances of two or three H ¹H sequences are common in Miya, and it is possible to construct even longer sequences, such as the following, though the pitch changes tend to flatten out after a few downsteps, for obvious physiological reasons:

H	H	H	H	H	H	
						'the wife of the leopard is not in front of the house'
'án	ta	dérwétli	má	vóna	kámuw	
[-	-	-	-	-]

Tone plays important lexical and phrase-delimiting roles in Miya, and there are numerous minimal tone pairs, e.g.

¹The patterns starting at a mid level could, of course, appear medial in an utterance as H's which were downstepped after earlier H's. The examples here refer only to patterns that could occur utterance initially.

dlár	[-]	'bed'	dlâr	[_]	'hunting'
tsiyaku	[_ _ _]	'ridgerow'	tsiyákə	[- - -]	'question'
rənakə	[_ _ _]	'copulation'	rənakó	[_ _ -]	'abundance'
kìyakə	[_ _ _]	'taking'	kìyákə	[- - -]	'biting'
bàhiy	[_ _]	'removing'	báhíy	[- -]	'going'

In describing the tone system of Miya, I will refer to *moras*, *syllables*, and *tonal domains*. A "tonal domain" is a portion of an utterance bearing a single tone. A tonal domain is minimally one syllable, but it may extend over many syllables and across word boundaries. Most Miya tone processes affect tonal domains rather than individual syllables or individual morphemes or words.

In the lexicon, tonal domains have one of three tonal associations. The pitch realization of tonal domain depends on whether the domain is utterance initial or follows some other tonal domain. The following table summarizes the realizations of each type of associated domain:²

LEXICAL ASSOCIATION	CONTEXT	
	Utterance initial	Utterance medial
Toneless	High	copy of preceding tone
High	Low	downstepped High
Low	Low	Low (but 1st syllable may be raised after L by LOW RAISING— §3.3)

The following tables show how tonal domains in nouns of one, two, and three syllables fit the patterns above (there are no monosyllabic nouns with underlying L). Discussion below explains the reason for having two sets of examples for L items:

Utterance Initial

Tless	'iy	'dog'	láahə	'jackal'	lábadi	'basket'
	[-]		[-]		[- -]	
H	səm	'person'	mə́də	'castrated goat'	zhàzhəkə	'porcupine'
	[_]		[_ _]		[_ _ _]	

²I am indebted to Brian McHugh, who first suggested a lexical "Toneless" domain. In my original analysis I had three lexical tones: H (= Toneless in the current analysis), D[ownstepped H] (= H in the current analysis), and L (= L in the current analysis). Adopting the system with Toneless, H, and L domains has made the analysis both simpler and more intuitively satisfactory. The one anomaly is that lexical H is realized as L in utterance initial position. H following another tone is always *downstepped* H (= H, but at a pitch level lower than a preceding H would be). If we think of utterance initial as "following Ø tone", then it makes sense that H should be "ultimately downstepped", i.e. all the way to L. It is worth noting that underlying H and L are fully neutralized in utterance initial position. I made and recorded a list of lexically H and L words, randomly ordered, and had Vaziya repeat the list. There were no pitch differences between H and L.

L	-----	gùzəm	'Nile monitor'	dùwakə	'horse'
		[_ _]		[_ _]	
		mbàrgu	'ram'	kàvəkə	'gray monitor'
		[_ _]		[_ _]	

Following H: akyar 'back of ...'

Tless	ákyar 'iy	ákyar laahə	ákyar labadi
	[- - -]	[- - -]	[- - - -]
H	ákyar sóm	ákyar mǎ́də	ákyar zhàzhəkə
	[- - -]	[- - -]	[- - - -]
L	-----	ákyar gùzəm	ákyar dùwakə
		[- - _]	[- - _ _]
		ákyar mbàrgu	ákyar kàvəkə
		[- - _]	[- - _ _]

Following L: vəna 'mouth of ...'

Tless	vəna 'iy	vəna laahə	vəna labadi
	[_ _]	[_ _ _]	[_ _ _ _]
H	vəna sóm	vəna mǎ́də	vəna zhàzhəkə
	[_ _ -]	[_ _ -]	[_ _ - -]
L	-----	vəna guzəm	vəna duwakə
		[_ _ _]	[_ _ _ _]
		vəna mbàrgu	vəna kàvəkə
		[_ _ -]	[_ _ - _]

With one exception the entire underlying lexical tonal domain retains a single tone, regardless of context. The exception is seen in the second line of nouns with a L domain, where, following L, the *first syllable* of the underlying L domain is raised. This is a result of the rule of LOW RAISING, which raises the first syllable of a L domain after L if that domain begins in a consonant other than a voiced obstruent (§3.3). LOW RAISING is the only general Miya tone rule which applies to a single syllable rather than a full tonal domain.

1.2. Tone marking system. Rather than providing each syllable with a tone mark, as is the normal practice in Chadic linguistics and much other work in African languages, I use an adaptation of a system of tone marking which dates to at least Christaller (1875, 1933) (cf. Christaller 1875:15) and which has been used, particularly by German linguists, for other languages, e.g. Lukas (1937) for Kanuri. In the United States it has been used at least by Welmers and Welmers (1968a, 1968b) for Igbo. In this tone marking system, only the first tone of a tonal domain receives a diacritic, with the next diacritic indicating a *change* in tone. I use the following diacritics:³

³The only difference between the system here and Christaller's is that lack of a mark in utterance initial position indicated L for him—Twi has nothing corresponding to Miya's Toneless domain. Christaller used consecutive acute accents, as here, to mark (downstepped) H. He referred to the second (and later) acute-

Acute accent (´): H on the first syllable of an utterance, downstepped H thereafter

Grave accent (`): L

No mark: • utterance initial: the citation is not marked for tone

• following any tone mark: continuation of previous pitch

Cf. the tone marking of the following utterances with their respective tones:

ákyar zházhəkə	[´- - - -]	'back of a porcupine'
ákyar dùwakə	[´- _ _ _]	'back of a horse'
və̀na zházhakə	[_ _ - - -]	'mouth of a porcupine'
'án ta dér wétli	[´- - - -]	'wife of a leopard'

This tone marking system is especially appropriate for Miya, first, because the use of only two diacritics captures in a direct way that there are really only two distinctive tone levels in Miya,⁴ and second, because nearly all Miya tone processes hold over (potentially multi-syllabic) *domains* rather than single syllables. Tone marks thus delineate the beginnings of domains rather than the tones of particular syllables.

Unless otherwise indicated, I will mark the tones of citations as they would be pronounced rather than according to their lexical tones. For example, utterances marked with an initial H (´) such as those immediately above have lexical initial Toneless domains which are raised to H by a rule DEFAULT HIGH TONE (§3.1).

2. Lexical Tone Distribution⁵

2.1. Verbs. In the verbal system, CV verbs fall into two tone classes and all other verbs into three tone classes. Surface tones of verbs are governed by a rather complex interplay of TAM form and presence or absence of clitics. See Chapter 4, esp. 4:§1.2.

2.2. Nouns. Existing tone patterns on presumably native, non-derived nouns are considerably more restricted than would be predicted on the basis of the number of syllables in a word multiplied by the number of contrasting tones. I counted the tone patterns and their distributions in a sample of 348 Miya nouns which were not obvious recent borrowings and which were not transparently derived forms. The results are summarized in the table below.

Distribution of tonal patterns is sensitive to nominal structure. The relation of tone to structure is best captured in terms of *moras* per word rather than number of *syllables*. (See 2:§3.2 for a definition of "mora".) As noted in 2:§3.2, the minimal Miya word has two moras. Moreover, the minimal Miya noun has two consonants—there are no CVV nouns.

marked syllables as "mid", the distinction between true M(id) tone and downstepped H not being clearly understood at the time. The fact that he used the same mark for H and downstepped H shows that he had an intuitive notion of the distinction between true M tone (which neither Twi nor Miya has) and downstepped H long before that distinction was clearly formulated.

⁴The practice in African linguistics of marking downstepped ¹H with a raised exclamation mark preceding a H does permit use of a single diacritic to mark H, but I find this method of marking downstep to be clumsy and unsightly, and it would be impossible to use in a practical orthography.

⁵My thanks to Bruce Hayes for discussing aspects of this section with me, esp. helping me clarify the implications of moraic vs. syllabic assignment of tone.

As will be seen in discussion below, there is an important division between nominal roots with 2 moras and those with more than 2, but because 3-mora nouns are the most numerous and hence of potential interest as a group, I have given separate counts for nouns of 2, 3, and 4 or more moras. Many Miya nouns have a prefix *a-* of unclear function (8:§2.4.1). For nouns that have this prefix in their citation form, generalizations on tone distribution apply to the nominal root without the prefix. For each moraic structure, I have provided separate counts for nouns which have the prefix and those which do not.

Tone patterns on native, underived Miya nouns

Tone pattern	Number of examples for each nominal structure						TOTAL
	2 μ	<i>a-</i> + 2 μ	3 μ	<i>a-</i> + 3 μ	4(+) μ	<i>a-</i> + 4(+) μ	
Toneless	14	10	14	2	2	∅	42
H	63	29	17	3	∅	1	113
L	∅	∅	68	6	21	∅	95
Tless-H	∅	∅	27	4	10	3	44
Tless-L	∅	∅	∅	7	5	6	18
H-H	∅	∅	1	3	13	3	20
H-L	∅	∅	∅	2	∅	8	10
other	∅	1	∅	∅	1	4	6
TOTAL	77	40	127	27	52	25	348

μ = moras in the nominal root

a- = prefix *a-* (see discussion preceding table and 8:§2.4.1)

I write the illustrative nouns in the discussion below with the tones they have in citation form. Word initial Toneless syllables thus bear H, but word initial H and L both bear L (see table in §1.1). The reader will have to take my word for it that the latter two are underlyingly distinct. I checked every noun I elicited in non-initial environments to verify the underlying tones.

The table above shows a major division in nominal tonal patterns between 2-mora nominal roots and others. Two-mora nominal roots have only two possible tone patterns: Toneless and H, e.g.

Toneless

zháw	[-]	'rope'
'ji	[- -]	'mortar'
ápar	[- -]	'horn'
ádambə ⁶	[- - -]	type of hairdo

H

vən	[_]	'mouth'
mbádə	[_ _]	'thigh'
átín	[- -]	'nose'
ágózhə	[- - -]	'hair'

The underlying tone of the unprefix H words can be seen in non-initial context, e.g. *nákən vən* [- - -] 'this mouth', *tákən mbádə* [- - - -] 'this thigh'.

⁶The medial *-mb-* is a unit prenasalized phoneme (2:§1.1.3). The root thus has only two moras.

Nominal roots containing more than two moras may bear any of the three level tone patterns, e.g.

Toneless		H		L	
láahə	'jackal'	*CaaCə	(see below)	càatə	'peppers'
várkə	'boy' (v. fn. 7)	*CVCCə	(see below)	mbərgu	'ram'
kwákwiy	'granary'	yàwun		kùsam	'rat'
lábadi	'basket'	zhàzhəkə		dùwakə	'horse'
láawur	'potato'	màdashi		gə̀dʹanzakway	'hyena'
átlakwam	'spear'	ábótakə		ábàngu	'lizard'
		áfídyaduw		ávàviy	'mosquito'
				ámbyà'ala	'lizard (f)'

Interestingly, L is the single most common pattern in nouns of three or more root moras, yet this pattern is excluded from nouns with two root moras. One can speculate that the reason for lack of a H/L distinction among 2-mora nouns is the fact that H and L are neutralized in utterance initial position, which, of course, is also the citation form. To ease the memory burden, as it were, all 2-mora nouns cited with L have shifted to the H tone class. In longer nouns, the shift is toward the L class. In the sample here, there are no 4(+)-mora nouns with the H pattern (aside from one noun with the *a-* prefix, where the H/L distinction on the root shows up even in citation form). Among unprefixed 3-mora nouns, there are four times as many with the L pattern as the H. Moreover, H 3-mora nouns lack two possible configurations (CaaCə, CVCCə). It may be significant that these are the configurations which place the first two moras in the first syllable, a mora distribution which is well attested in both Toneless and L 3-mora nouns.⁷ In addition to nouns, L is the pattern for nearly all monotonal adjectives, which are not included in the counts here, but which have nominal properties (§2.3, 8:§3). I have no explanation for why 2-mora nouns should have shifted to underlying H while longer nouns appear to be shifting to L. On functional grounds, one would have predicted that *all* the nouns in question would have shifted to L, allowing a single tonal realization for both initial and non-initial contexts.

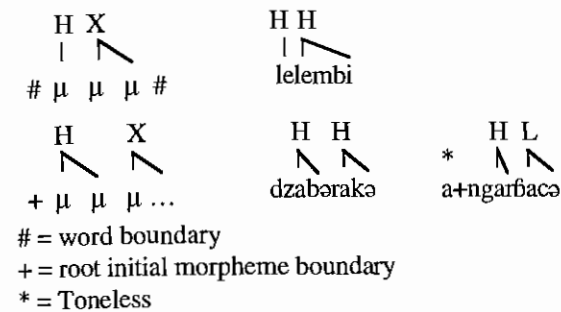
Only nominal roots of more than two moras may have an internal tonal change. There are only four well-attested multi-tone patterns: H-H, H-L, Toneless-H, and Toneless-L. Underlying, there are thus no intra-root patterns with more than two tones and no rising tone patterns.

H-H:	3 μ	lèlémbi	[_ - -]	'bull'
		átíyatí	[- - - -]	'kidney'
		átúkudʹ	[- - - -]	'toad'
	4(+)	tùwatúw	[_ - -]	'body'
		gwàngwán	[_ - -]	'stink ant'
		kàkənsó	[_ - -]	'puff adder'

⁷The only noun with a CVCCə configuration among Toneless 3-mora nouns is *várkə* 'boy'. In addition to being segmentally unique in its tone class, this noun is tonally unique among substantive lexical items. I discuss its tones in §5 below. The CVCCə configuration is not common in general. Aside from *várkə*, there are only 12 other tokens, all in the L class. The Toneless class has 8 tokens of the CaaCə nouns (vs. 3 in the L class).

		dùrdú	[_ -]	'heron'
		dèrwełí	[_ - -]	'leopard'
		dzàbəràku	[_ - - -]	'guinea fowl'
		ázhúwazhúw	[- - - -]	'musk shrew'
H-L:	3 μ	áníyhə	[- - _]	'medicine'
		ámírcí	[- - _]	'woven grass belt'
	4(+)	ábərbàr	[- - _]	'speckled pigeon'
		átúkusùm	[- - - _]	'hedgehog'
		ángárfàcə	[- - - _]	'black ants'

The tone association schemata and examples below summarize the way H-X patterns are associated with nominal roots:⁸



The first schema associates the initial H with the first mora of a 3-mora word and the second tone with the other moras. This schema accounts for one word, *lèlémbi* 'bull', which is the only example in my data of a non-prefixed 3-mora word with a H-X pattern. The second schema associates the initial H with the first two moras of a *root*, i.e. the prefix *a-* is not included in the tone association pattern. This accounts for all other H-X words, regardless of the number of moras.

One caveat to the tone association pattern described here can be stated as follows:

TONE LEVELING: If two tones are associated with the moras of a single syllable, the second tone is delinked, i.e. the syllable is pronounced on a single tone.

Miya has no contour tones. TONE LEVELING thus prevents pronunciations such as **kàkənsə* [_ ˨ -] or **ábərbər* [- ˨ _], which would otherwise be predicted by the association pattern given above.⁹

⁸Verbs of the "H H" and "H L" classes comprise two further large classes of words described as having H-X tone patterns (4:§§1.2.3.2-3). H H verb class gerunds (4:§2.2.1) have a tone pattern resembling that of H-H nouns, e.g. *bətakə* 'untying', *rəvəđakə* 'becoming thin', but for these gerunds, the first H is associated with any number of moras up to and including the penultimate. The difference in tonal association between "H H" verbs and H-H nouns is accounted for by the fact that the second H of the verbs is a *floating* H, which is associated only with a final clitic or suffix. "H L" class verbs present a number of descriptive problems calling for admittedly ad hoc devices and thus are probably not comparable to H-L nouns.

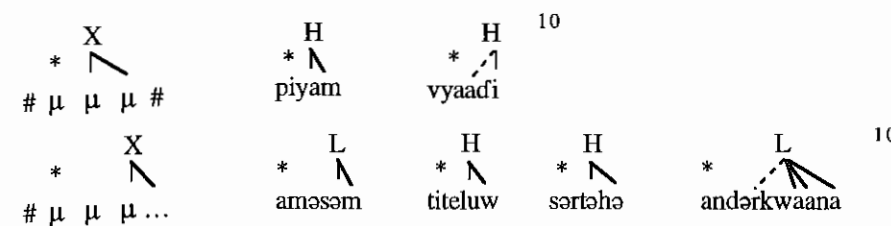
⁹The word *ndydam* 'all' is consistently pronounced with a falling contour tone. It is also exceptional in having a long vowel in a closed syllable. TONE LEVELING could be altered to accommodate this word by

The H-L pattern comprises the smallest number of nouns in any of the well-attested tone classes, and all the tokens of this class bear the prefix *a-*. These two facts about the H-L class are a result of H and L both being realized as L in initial position. If the word *ábàrbàr* lacked the *á-* prefix which permits the first tone to be heard as (downstepped) H, the word would be pronounced **bàrbàr* [_ _], which is tonally indistinguishable from nouns of the monotonal L class. There is a rule of LOW RAISING (§3.3) which raises the first syllable of a L domain to H after L if that syllable does not begin in a voiced obstruent. Thus, if *átíkúsùm* lacked the *á-* prefix, it would be pronounced **tíkúsùm* [_ _ -], with the last syllable raised by LOW RAISING. However, the word would then fall together tonally with H-H words (cf. examples such as *tùwatúw* 'body' above). Because of these neutralizations, any H-L words without the *a-* prefix have fallen together with the L or H-H classes.

Toneless-H:	3 μ	<i>vyáadí</i>	[- -]	'anus'	
		<i>málvó</i>	[- -]	'chief'	
		<i>gwágúm</i>	[- -]	'dove'	
		<i>píyám</i>	[- -]	'pumpkin'	
		<i>shínákə</i>	[- - -]	'tongue'	
		<i>átlakíy</i>	[- - -]	'crab'	
		<i>águnám</i>	[- - -]	fly sp.	
	4(+)	μ	<i>kúnkúl</i>	[- -]	'cap'
		<i>dírkíy</i>	[- -]	'chicken'	
		<i>títelúw</i>	[- - -]	'cornstalk flute'	
	<i>sártəhə</i>	[- - -]	'lake'		
	<i>gángədáhən</i>	[- - - -]	'praying mantis'		
	<i>ámarnóo</i>	[- - -]	'side of body'		
	<i>áshiwáyuw</i>	[- - - -]	'sweat'		
	<i>ámisháangay</i>	[- - - -]	'earthworm'		
Toneless-L:	3 μ	<i>áməsəm</i>	[- - _]	'dream'	
		<i>ákwarìy</i>	[- - _]	'bag'	
		<i>ángwazàr</i>	[- - _]	'trap'	
	4(+)	μ	<i>círandàn</i>	[- - _]	'boil on buttocks'
		<i>tómakwìy</i>	[- - _]	'sheep (pl)'	
		<i>bólənkày</i>	[- - _]	'baboon'	
		<i>átəràariy</i>	[- - - _]	'biting ant'	
		<i>ándərkwàana</i>	[- - - _]	'whirlwind'	
		<i>átikwírma</i>	[- - - _]	'stone partridge'	
		<i>ágidàaderuw</i>	[- - - - _]	'dung beetle'	

The tone association schemata and examples below summarize the way Toneless-X patterns are associated with nominal roots:

delinking only the tone associated with the second mora of a syllable. *Ndyám* has 3 moras, so the third mora would still be associated with L. Since this word is phonologically unique, I prefer simply to treat it as an exception to the more general properties of Miya phonology.



The first schema leaves the first mora of a 3-mora noun toneless and associates the second tone with the remaining moras. This pattern will be recognized as identical to that for unprefixated 3-mora words with the H-X pattern. (I return to discussion of this pattern below.) The second schema leaves the first two moras toneless and associates the second tone with the remaining moras.¹¹ This schema will be recognized as being nearly identical to the pattern for H-X nouns with more than three moras. The only difference is that the schema for Toneless-X nouns applies to the *word*, including the *a-* prefix if there is one, whereas the H-X schema applies to the root, excluding the prefix.

One can imagine a functional explanation for the difference in the ways tones are associated in H-X and Toneless-X words. The longer the domain of a single tone, the more easily that tone will be perceived. In H-X nouns, association of the initial H over two moras of the *root* is desirable for "safe" identification of the first tone of that root. This includes nouns with the *a-* prefix, because association of the initial H with only one root mora could create difficulty in distinguishing that H domain from the tone of the prefix and/or the following tone. The same consideration of a "safely large" domain would apply to non-prefixated Toneless-X words. In the case of *a-* prefixated Toneless-X words, a 2-mora Toneless domain will have been achieved after the first mora of the root, allowing the initial tone of the *word* and, by extension, the initial tone of the *root* to be identified.

This account fails to explain the assignment of tone to unprefixated 3-mora nouns. As already noted, in the data sample studied, there is only one token of such a H-H noun (*lèlèmbi* 'bull'). There are no tokens of parallel H-L nouns, a fact accounted for above by utterance initial neutralization of H and L. Interestingly, there are likewise no tokens of parallel Toneless-L words, a fact which I cannot independently account for. This pattern is found in words other than underived common nouns, e.g. *kyàràti* 'height' (< a root *kara-* 'tall'—8:§2.4.2), *Jáalà* (a proper name), *bónà* 'yesterday', *wútə* 'one', *ghájà* 'when?' (the latter three with only two moras), and Miya freely borrows nouns of this pattern, e.g. *kúdùw* 'south', *góoròo* 'kola nut', *móotà* 'car' (all from Hausa)

¹⁰In *vyáadí*, the second mora is *a* and is thus linked to underlying H, but because of TONE LEVELING, only the tone of the first mora of that syllable is heard. In *ándərkwàana*, the third mora is *-r-* and is thus underlyingly linked to L. Again, this L is not heard because of TONE LEVELING.

¹¹I have found one problematic word, *tyúwlaalín* [- - -] 'cattle egret'. The first two moras of this word are *u-w*, meaning that the second tone should be associated with the next mora, *a*, giving the tone pattern **tyúwlaalín*. In my notes on Miya, I originally wrote this word as *"tyúlaalín"*, i.e. with only one mora in the first syllable. This segmental form would yield the predicted tone pattern because the first and second moras would now be *u-a*. However, because phonetic short [u] only shows up as a conditioned variant of /ə/ (2:§2.2.1), there would be no way to account for [u] in the first syllable without *w* being present. This word must therefore be considered tonally or segmentally anomalous.

One might suggest that multi-tone patterns on nouns of only three moras are in a precarious situation because of the perceptual considerations underlying tone association patterns outlined above. However, the unprefixd Toneless-H group is one of the largest single groups of nouns in the sample, with 27 tokens. The virtual absence of multi-tone patterns other than Toneless-H on 3-mora unprefixd nouns will have to remain a distributional fact not fully understood at this time.

To conclude the discussion of nominal tones, I list the six nouns in the data sample given as having "other" tone patterns:

ázàkú	[- _ -]	a-L-H	'maternal uncle'
áposàndá	[- - _ -]	a-Toneless-L-H	'gecko'
ákitlíràti	[- - - _ -]	a-Toneless-H-L	'fear'
ámblímàtí	[- - _ -]	a-H-L-H	'musk shrew'
àgòdàngólùw	[_ - - -]	a-L-H-L	'millipede'
pàlakashúwà	[_ - - -]	L-H-L	'hawk'

These all share the characteristic of having an internal rising tone sequence (... L-H), a non-existent configuration in "canonical" nouns. It is likely that all these words other than *ázàkú* 'maternal uncle' are compounds of some kind, at least historically, though none have an internal structure which is transparent to me. 'Millipede'¹² and 'hawk' seem to support this suggestion in that they begin with a sequence of L, then rise, whereas there are no L-X patterns in canonical nouns. 'Gecko', 'fear', and 'musk shrew' conform to the schemata for tone association over their first two tones but add a third tone, a possibility also absent among canonical nouns. Ironically, the shortest word is the most unusual—I have no non-ad hoc account at all for 'maternal uncle'.

Discussion in this section has concentrated only on nouns without derivation or inflectional affixation (other than the prefix *a-*). Nouns inflected for plural have tone patterns not included here (see 8:§2.3), and there is at least one derivational suffix, *-(wa)ta*, which is found on some nouns which fall outside the patterns here (see 8:§2.4.2). As noted in fn. 8, gerunds, which are nominal forms regularly derived from verbs, do not conform to the patterns above (see 4:§2.2.1), but deverbal nouns, which are unpredictable nominal forms related to verbs, do follow these patterns (4:§2.3.1).

2.3. Other substantive word classes. Aside from verbs and nouns, the other substantive word classes of Miya are adjectives, quantifiers (esp. numbers), and adverbs.

Most adjectives fall into one of the patterns found with nouns. In 8:§3, I divide adjectives into two groups: *primary adjectives* and *adjectival nouns*. Primary adjectives, of which there are only five, always bear a gender/number-sensitive suffix. The roots of primary adjectives are all bimoraic. Of the five primary adjectives, four are in the H class, but the fifth is L, which is a pattern not found on bimoraic nouns. However, since these adjectives are never used without the mora(s) added by the gender/number suffix, they might be considered as 3-mora words. I give only two examples, each in the masculine singular form. See 8:§3 for details:

¹²I have transcribed this word in my notes as having a L initial *a-*. Assuming that this is the *a-* prefix, this transcription is surely incorrect.

H	gàr-na	'large'	cf. <i>mbèrgu gár-na</i>	[_ _ - -]	'large ram'
L	gàbà-na	'small'	cf. <i>mbèrgu gábà-na</i>	[_ - - -]	'small ram'

Adjectival nouns also add a gender/number suffix when used as attributive or predicative modifiers, but they can be used with no suffix as quality nouns. All native adjectival nouns bear one of two tone patterns: L or Toneless-H.¹³ Many adjectival nouns are reduplicated. These repeat the tone pattern on each reduplicant. See 8:§3 for a list of all the adjectival nouns in my corpus:

L	hàmay	[_ _]	'emptiness'
	tsèntsəm	[_ _]	'sourness'
Toneless-H	ámbán	[- -]	'goodness'
	kwáyákwayá	[- - -]	'hardness (to the touch)'

Both these tonal groups have counterparts among nouns. However, the Toneless-H pattern has a realization in adjectival nouns that would not be possible in common nouns. In all the Toneless-H reduplicated adjectival nouns, each reduplicant has only two moras requiring that a multi-tone pattern be associated with a bimoraic form, a type of association absent in nouns.

Quantifiers all have one of the following patterns. See 8:§4 for a complete list.¹⁴

Toneless	dárbítim	'ten'	cf. <i>sàbà dərbitim</i>	[_ - - -]	'10 people'
L	vàatlə	'five'	cf. <i>sàbà vaatlə</i>	[_ - -]	'5 people'
Toneless-H	fórfádə	'eight'	cf. <i>sàbà fərfađə</i>	[_ - - -]	'8 people'
Toneless-L	wútə	'one'	cf. <i>'ám wutə</i>	[- - _]	'1 woman'

Notably absent among quantifiers are any patterns with an initial H. As noted in sections above, H and L in initial position are neutralized to [L], and there is evidence that classes of nouns with citation forms beginning in [L] are moving toward uniform treatment. Quantifiers differ from nouns in that all words pronounced in isolation with [L] bear underlying L tone regardless of the number of moras. This includes words of two moras, which always have underlying H in nouns. Thus, *tsər* 'two', *fəđə* 'four', *məna* 'how much, how many?', *cəsə* 'much, many' all have two moras and underlying L tone.

Most words that can be used as temporal or locative adverbs either are nouns or are derived from nouns and seem by and large to conform to the tone patterns found among nouns. Complete lists can be found in 8:§5-6. The few apparent departures from canonical nominal tone patterns seem to be related to an adverbial derivational suffix *-a*, whose tonal properties are not obvious. For example, *rədzà* 'in the afternoon' is a bimoraic word with a Toneless-L pattern, a configuration not found among common nouns. This word, in turn, is derived from *rədzə* 'afternoon', with a Toneless-H pattern on a bimoraic word, also a non-existent configuration among common nouns.

¹³There are a few borrowed adjectival nouns which do not have these tone patterns, e.g. *sáboo* (Toneless) 'new[ness]', *shúwdíy* (Toneless-L) 'blue[ness]', both from Hausa.

¹⁴I am using "quantifier" in a narrow sense to refer to lexically underived numbers and words meaning 'much, many' or 'a little, few'. Universally quantified expressions use morphologically complex forms (9:§5). I did not study complex quantifiers such as 'not more than', 'half as many as', etc.

LOW RAISING must follow INITIAL H LOWERING for the reason just given and must precede HIGH REGISTER SETTING, which it feeds. LOW RAISING and DEFAULT H TONE probably have no necessary ordering relation, but like LOW RAISING, DEFAULT H TONE feeds HIGH REGISTER SETTING and must thus precede it.

Below I present a number of derivations showing the operations of the rules in phrases. For simplicity of exposition, I use only various types of noun phrases. As noted at the beginning of §3, the basic tone rules apply within any tonal phrase, regardless of morphology or syntax. See §6 for discussion of tonal phrases and non-phrases and illustrations of the tone rules applied in contexts other than noun phrases.

The first sets of examples involve monotonal words. These are followed by a few examples of multi-tonal words.

Phrase initial Toneless domain (*təkən* and *nəkən* are feminine and masculine demonstratives respectively)

	Tless-H-H	Tless-H-L	Tless-H-Tless
Lexical	* H H takən mbaɖa məɖə	* H L takən mbaɖa kəvən	* H * takən mbaɖa laahə
TONE SPREAD	NA	NA	* H takən mbaɖa laahə
INITIAL H LOWERING	NA	NA	NA
LOW RAISING	NA	NA	NA
DEFAULT HIGH ASSIGNMENT	H H H takən mbaɖa məɖə	H H L takən mbaɖa kəvən	H H takən mbaɖa laahə
REGISTER LOWERING	[- - - -]	[- - - -]	[- - - -]
	'this thigh of a goat'	'this thigh of a buffalo'	'this thigh of a jackal'

	Tless-L-H	Tless-L-L	Tless-L-Tless
Lexical	* L H takən tatsiya məɖə	* L L takən tatsiya kəvən	* L * takən tatsiya laahə
TONE SPREAD	NA	NA	* L takən tatsiya laahə
INITIAL H LOWERING	NA	NA	NA
LOW RAISING	NA	* L HL takən tatsiya kəvən	NA

DEFAULT HIGH ASSIGNMENT	H L H takən tatsiya məɖə	H L HL takən tatsiya kəvən	H L takən tatsiya laahə
REGISTER LOWERING	[- - - -]	[- - - -]	[- - - -]
	'this tendon of a goat'	'this tendon of a buffalo'	'this tendon of a jackal'

	Tless-Tless-H	Tless-Tless-L	Tless-Tless-Tless
Lexical	* * H nakən akyar məɖə	* * L nakən akyar kəvən	* * * takən akyar laahə
TONE SPREAD	* H nakən akyar məɖə	* L nakən akyar kəvən	* takən akyar laahə
INITIAL H LOWERING	NA	NA	NA
LOW RAISING	NA	NA	NA
DEFAULT HIGH ASSIGNMENT	H H nakən akyar məɖə	H L nakən akyar kəvən	H nakən akyar laahə
REGISTER LOWERING	[- - - -]	[- - - -]	[- - - -]
	'this back of a goat'	'this back of a buffalo'	'this back of a jackal'

Phrase initial H domain

	H-H	H-L	H-Toneless
Lexical	H H mbaɖa məɖə	H L mbaɖa kəvən	H * mbaɖa laahə
TONE SPREAD	NA	NA	H mbaɖa laahə
INITIAL H LOWERING	L H mbaɖa məɖə	L L mbaɖa kəvən	L mbaɖa laahə
LOW RAISING	NA	L H L mbaɖa kəvən	NA
DEFAULT HIGH ASSIGNMENT	NA	NA	NA
REGISTER LOWERING	[- - -]	[- - -]	[- - -]
	'thigh of a goat'	'thigh of a buffalo'	'thigh of a jackal'

Phrase initial L domain

	L-H	L-L	L-Toneless
Lexical	L H tatsiya mədə	L L tatsiya kəvən	L * tatsiya laahə
tone spread	NA	NA	L tatsiya laahə
INITIAL H LOWERING	NA	NA	NA
LOW RAISING	NA	L HL tatsiya kəvən	NA
DEFAULT HIGH ASSIGNMENT	NA	NA	NA
REGISTER LOWERING	[- - - -]	[- - - -]	[- - - -]
	'tendon of a goat'	'tendon of a buffalo'	'tendon of a jackal'

Following are a few further examples with multi-tone nouns. I first give the derivations for the tonal realization of the nouns in isolation, then some derivations of the nouns in various phrasal configurations with each other.

Lexical	H * shinakə	H L * aniyhə	H * dlərkiy	H H durdur
tone spread	NA	NA	NA	NA
INITIAL H LOWERING	NA	NA	NA	L H durdur
DEFAULT HIGH ASSIGNMENT	HH shinakə	HH L aniyhə	HH dlərkiy	NA
REGISTER LOWERING	[- - -]	[- - -]	[- -]	[- - -]
	'tongue'	'medicine'	'chicken'	'heron'

Lexical	H H * * shinakə dlərkiy	H L H * * aniyhə dlərkiy	H H H * shinakə durdur	H L H H * aniyhə durdur
tone spread	H H * shinakə dlərkiy	H L H * * aniyhə dlərkiy	NA	NA
INITIAL H LOWERING	NA	NA	NA	NA

DEFAULT HIGH ASSIGNMENT	H H H shinakə dlərkiy	HH L H aniyhə dlərkiy	H H H H shinakə durdur	HH L H H aniyhə durdur
REGISTER LOWERING	[- - - -]	[- - - -]	[- - - -]	[- - - -]
	'tongue of a chicken'	'medicine for a chicken'	'tongue of a heron'	'medicine for a heron'

3.3. Further remarks on LOW RAISING. The rule of LOW RAISING deserves additional commentary. As stated in §3.1, this rule raises the first syllable of a L domain following a L if that syllable begins in a consonant other than a voiced obstruent. Voiced obstruents for the purposes of this rule comprise the non-prenasalized voiced stops, affricates, and fricatives (*b, d, g, gw, dz, j, v, z, zh, dl*). The rule does apply to syllables beginning in voiceless obstruents, glottalized obstruents,¹⁷ and sonorant consonants (nasals and liquids)—see 2:§1.1 for a list of all consonants. It also applies to syllables beginning in the prenasalized consonants (*mb, nd, ng, ngw, ndz, nz*) and the fricative *gh*. In 2:§1.1.2, *gh* is categorized as [+laryngeal], partly on phonetic grounds, partly on its behavior with respect to LOW RAISING. In the light of the list of specific consonants which block LOW RAISING, a more precise statement of the rule would have to say that the rule applies to syllables *other than those* beginning in a segment of the following class:¹⁸

-sonorant
+voice
-nasal
-laryngeal

Following are examples of application and non-application of LOW RAISING depending on the initial consonant type. Some of the phrases in the left-hand column have undergone TONE SPREAD and/or INITIAL H LOWERING. The hyphenated *-ya* in two examples is a toneless feminine agreement suffix (8:§3), but because it has been associated with the first L by TONE SPREAD, it is part of the conditioning environment. The words *səbə* 'people' and *wún* 'child' are underlyingly H (cf. *níykin səbə* 'these people'); *təvam* 'women', *təkən* 'chair', and *zəkíy* 'stone' are underlyingly L (cf. *níykin təvam* 'these women'). However, because of INITIAL H LOWERING, they all are associated with L in initial position and hence all condition LOW RAISING.

L L təvam tsə	→	L H təvam tsə	[- - -]	'two women' ('women two')
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¹⁷I have no examples of glottal-initial L words in a /L__ environment. I am assuming that they pattern with the voiceless obstruents and sonorants on analogy with interactions of consonant types and tones in a number of other Chadic languages where the glottalized consonants pattern with the voiceless obstruents. This is the case, for example, in Bade, Ngizim (Schuh 1971), and Bolanci (Lukas 1969).

¹⁸I am assuming that the glottalized consonants *β* and *d'* are categorized as [-voice]. Although these consonants do have some laryngeal vibration, the gesture is different from that characteristic of voiced consonants made with a pulmonic air stream, which is the relevant type of voicing for the classificatory feature [voice] (cf. fn. 17).

L L ↙ ↘ təkən ləbələbə-ya	→	L HL ↙ ↘ təkən ləbələbə-ya	[_ _ - _ _ _]	'soft chair' ('chair soft')
L L ↙ ↘ səbə maatsər	→	L HL ↙ səbə maatsər	[_ _ - _]	'seven people' ('people seven')
L L ↙ ↘ zəkiy ndandan-ya	→	L HL ↙ ↘ zəkiy ndandan-ya	[_ _ - _ _]	'heavy stone' ('stone heavy')
L L ↙ ↘ wuna ghəruw	→	L HL ↙ wuna ghəruw	[_ _ - _]	'calf' ('child [of] cow')
L L ↙ ↘ wuna baday	→	(no change)	[_ _ _ _]	'small basket' ('child [of] basket')
L L ↙ ↘ səbə vaatlə	→	(no change)	[_ _ _ _]	'five people' ('people five')

LOW RAISING applies only to a L which is separately linked from the preceding L. If an underlying Toneless domain has received L from a preceding L by TONE SPREAD, it becomes part of a single L domain and is hence not subject to LOW RAISING. Compare the following two derivations, the one on the left with a L adjective following a L noun, the one on the right with a Toneless adjective¹⁹ following the same noun.

	L-L	L-Toneless
Lexical	L L * ↙ ↘ nduwul həmay-na	L * * ↙ ↘ nduwul saaboo-na
TONE SPREAD	L L ↙ ↘ nduwul həmay-na	L ↙ ↘ ↘ nduwul saaboo-na
LOW RAISING	L HL ↙ ↘ nduwul həmay-na	NA
REGISTER LOWERING	[_ _ - _ _]	[_ _ - _ _]
	'empty pot' ('pot empty')	'new pot' ('pot new')

LOW RAISING applies to L domains, regardless of the morphological environment for that domain. LOW RAISING in all the examples above takes place at word boundaries. The rule will also affect a word internal L when the environment is met. For example, the

¹⁹The adjective *sáaboo* 'new' is borrowed from Hausa, where it has all high tones. In borrowing this word, Miya has interpreted the citation form with high tones as belonging to the Miya Toneless class, thus bringing it under the rules which apply to Toneless domains.

words *wúttà* 'one' and *áKandò* 'Kano'²⁰ have an underlying Toneless-L pattern, giving citation pronunciation [- _] and [- - _] respectively because of DEFAULT HIGH applying to the initial Toneless domain. However, when such words follow a L domain, the initial Toneless domain is associated with the L, creating the environment for LOW RAISING to apply to the internal L of the words. The surface result is a reversed tone pattern from that of the citation form. (See §5 for the tonal phrase of which *áKandò* is a part.)

Lexical	H L * sən wutə	L H L L ↘ * a bay bakwal aKanoo
TONE SPREAD	H L ↙ sən wutə	L H L L ↘ a bay bakwal aKanoo
INITIAL H LOWERING	L L ↙ sən wutə	NA
LOW RAISING	L H ↙ sən wutə	L H L H ↘ a bay bakwal aKanoo
REGISTER LOWERING	[_ - -]	[_ - - - -]
	'one person' ('person one')	'he took a bag [to] Kano'

4. Floating L Tones

A number of specific morphemes which clearly form tonal phrases (§5) with what follows do not exhibit the tonal behavior predicted by the general tone rules discussed in §3. In all cases these morphemes replace the following tonal domain with a L tone. I account for this phenomenon by providing the morphemes in question with a final floating L tone and a convention in Miya that a floating tone replaces the next tone.

H L verbs + Direct Object (in Verbal TAM's)

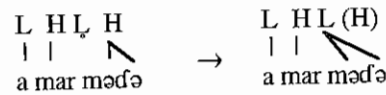
The difference between a morpheme with a floating L_f (differentiated from associated L by _f below the tone letter) and one without can be illustrated by contrasting the L verb class and the H L_f verb class (4:§1.2). In verbal TAM's (5:§2.1), the former does not have a floating tone, the latter does. It is not possible to present a tonal minimal set since there are no verbs pronounced with L which have a floating L_f and no verbs pronounced with H which do not. However, the behavior of various tone patterns after the L verb show that Verb + Direct Object is a tonal phrase. The consistent L on objects after a H L_f verb is not the tone which would be expected after a simple H (see examples in §3.1).

²⁰Miya adds a toneless locative prefix *a-* to many place names (8:§6.1), retaining the tones of the word in the source language on the root. Presumably *Kándò* comes into Miya from Hausa, where it has a H-L pattern. However, as noted in the preceding footnote, the word initial H of the citation form is interpreted as Toneless in Miya, causing the word to behave tonally as a Toneless-L word.

Noun	Citation tones	Underlying tones	
mə́dɔ	[_ _]	H	'castrated goat'
mbə́rgu	[_ _]	L	'ram'
zháakə	[- -]	Toneless	'donkey'
dlə́rkíy	[- -]	Toneless-H	'chicken'
də́rwétli	[_ - -]	H-H	'leopard'

L verb	'he called a ...'	H L verb	'he got a ...'
à zar mə́dɔ	[_ - - -]	à már mə́dɔ	[_ - - -]
à zar mbə́rgù	[_ - - -]	à már mbə́rgu	[_ - - -]
à zar zhaakə	[_ - - -]	à már zhàakə	[_ - - -]
à zar dlə́rkíy	[_ - - -]	à már dlə́rkíy	[_ - - -]
à zar dər̀wétli	[_ - - -]	à már dər̀wétli	[_ - - -]

Below is a derivation for the first phrase:



H L verbs in any *verbal* TAM (Perfective, Hortative, Imperative—5:§2.1) have a floating L. Compare the phonetic forms of the following Hortative and Imperative verbs with the Toneless and H objects, *zhaakə* 'donkey' and *mə́dɔ* 'castrated goat' respectively:

	H L Verb		L Verb	
Sg. Imper.	már zhàakə [- _ _]	'get a donkey!'	zàr zhaakə [_ _ _]	'call a donkey!'
	már mə́dɔ [- _ _]	'get a goat!'	zàr mə́dɔ [_ _ _]	'call a goat!'
Hortative	tà már zhàakə [_ - _ _]	'he should get a donkey'	tà zar zhàakə [_ _ _ _]	'he should call a donkey'
	tà már mə́dɔ [_ - _ _]	'he should get a goat'	tà zar mə́dɔ [_ _ _ _]	'he should call a goat'

No verbs in *nominal* TAM's (Subjunctive, Imperfective, etc.—5:§2.2) have floating L. In the following examples, the direct objects have the tonal behavior predicted by the general tone rules (spread of final verb tone to the Toneless object *zhaakə* and [downstepped] H on the H object *mə́dɔ*):

	H L Verb		L Verb	
Subjunc.	də́ mará zhaakə [_ _ - -]	'that he get a donkey'	də́ zara zhaakə [_ - - -]	'that he call a donkey'
	də́ mará mə́dɔ [_ _ - -]	'that he get a goat'	də́ zara mə́dɔ [_ - - -]	'that he call a goat'

náy` Presentative

Another morpheme with final floating L is the Presentative *náy* 'here's ...' (11:§4.7). Historically, this word is a form of the verb *nay* 'see', which is a H L verb, accounting for the floating L associated with it. Below are two derivations which are more complex than those above. The phrases with *náy* show that replacement of a domain by floating L precedes the regular tone rules, in particular LOW RAISING, because a tonal domain replaced by the floating L feeds LOW RAISING.

Lexical	$ \begin{array}{ccc} L & L & L \\ * & * & & \\ \text{nay} & \text{gooroo} & \text{kən} \end{array} $	$ \begin{array}{ccc} L & H & H & L \\ * & & & \\ \text{nay} & \text{yawun} & \text{yika} & \text{ka} \end{array} $
tone spread	(TONE SPREAD could associate L _i with the initial domain of <i>gooroo</i> , but for consistent treatment of L _i with any following domain, this association is handled by the rule below.)	NA
REPLACEMENT BY FLOATING L	$ \begin{array}{ccc} L & L & L \\ * & & & \\ \text{nay} & \text{gooroo} & \text{kən} \end{array} $	$ \begin{array}{ccc} L & (H) & H & L \\ * & & & \\ \text{nay} & \text{yawun} & \text{yika} & \text{ka} \end{array} $
LOW RAISING	$ \begin{array}{ccc} L & H & L \\ * & & & \\ \text{nay} & \text{gooroo} & \text{kən} \end{array} $	NA
DEFAULT H TONE	$ \begin{array}{ccc} H & L & H & L \\ & & & \\ \text{nay} & \text{gooroo} & \text{kən} \end{array} $	$ \begin{array}{ccc} H & L & (H) & H & L \\ & & & & \\ \text{nay} & \text{yawun} & \text{yika} & \text{ka} \end{array} $
REGISTER SETTING	[- _ _ _]	[- _ _ _ _]
	'here's a kola (here)'	'there's an elephant there'

The derivation of *góoròo* 'kola' reverses the H-L citation pattern to give L-H,²¹ thus removing the potential environment for LOW RAISING of the next low syllable, *kən*. The tone *kən* would not have been affected by a preceding L in any case. It seems that *kən* 'here' is not part of the same tonal phrase, for it remains L even when preceded by L, e.g. *náy ndùwulálàw kən* [- _ _ _] 'here are some pots'. I can find few, if any, examples in my data where REPLACEMENT BY FLOATING L creates an environment for LOW RAISING.²²

²¹*Góoròo* is yet another example of a Hausa loanword cited with H-L tones being interpreted in Miya as Toneless-L—cf. preceding footnotes.

²²A likely example is *mátsə̀ mbə́rgù* [- _ -] 'sell a ram!'. This is a singular Imperative of a H L verb followed by a L object *mbə́rgu*, whose first syllable has been raised by LOW RAISING. It is shown above that a singular imperative of a H L verb such as *már* 'get!' has a floating L. In the case of the two-syllable verb *mátsə̀* 'sell!', that floating L shows up on the second syllable of the verb, which preempts it from being associated with a following object (cf. *mátsə̀ mə́dɔ* [- _ -] 'sell a goat!' where the object bears its lexical H rather than the floating L illustrated above). Assuming, then, that the final L of *mátsə̀* represents the floating L, it does create the environment for LOW RAISING and hence must precede the application of that rule.

Plural Imperative suffix *-iy*²³

The examples below, all with the underlyingly H object *mə́də* 'castrated goat', show that the plural Imperative suffix *-iy* (4:§1.2.3.6.2) has a floating L. The plural Imperatives are compared with the corresponding singulars. The first two are L verbs, which have no floating L; the third is a H L verb, which has floating L in the singular Imperative as well (see above):

Plural Imperative		Singular Imperative	
bət-iy mə́də [_ - _ _]	'untie (pl) a goat!'	bə́tə mə́də [_ _ - -]	'untie (sg) a goat!'
zār-iy mə́də [_ - _ _]	'call (pl) a goat!'	zā́r mə́də [_ - - -]	'call (sg) a goat!'
mār-iy mə́də [- √ _ _]	'get (pl) a goat!'	mā́r mə́də [- _ _ -]	'get (sg) a goat!'

The last example needs further comment. The suffix of the plural Imperatives on H L verbs is the only morpheme (indeed, the only syllable) of Miya which consistently has a contour tone. The falling contour begins at the level of a downstepped H following the preceding H and falls to L. Following are a few further examples:²³

mār-iy	[- √]	'get (pl)!'
mār-iy dlərkiy	[- √ _ -]	'get (pl) a chicken!'
mə́ts-iy zhàakə	[- √ _ _]	'sell (pl) a donkey!'
tə́f-iy-yà	[- √ _]	'shoot (pl) him!'
'əs-iy-kà	[- √ _]	'get satiated (pl)! (-kà is the ICP—5:§4.1)

Plural Imperatives of other verb tone classes do not have this falling contour.

ts-iy mə́də	[- _ _]	'give (pl) a goat! (monoconsonantal verb)
zār-iy zhàakə	[_ - _ _]	'call (pl) a donkey!' (L tone class verb)
bət-iy (mə́də)	[_ - (_)]	'untie (pl) (a goat)! (L tone class verb)
rə́b-iy kàbə	[_ - _ _]	'moisten (pl) a gown!' (H H tone class verb)

I have no non-*ad hoc* account for these facts. For this one morphological environment, I suggest that the floating L associates with the Imperative suffix and also replaces the following tone:

H H L _r * mə́ts-iy zhaakə	→	H H L / mə́ts-iy zhaakə	'sell (pl) a donkey!'
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²³The plural Imperative suffix *-iy* appears as part of the 1st person plural Imperative (4:§1.2.3.6.3), e.g. *zār-iy-má* 'let's call!'. My transcriptions are inconsistent as to whether a falling contour occurs on *iy* in this environment, e.g. I transcribed *mār-iy-má* [- √ -] 'let's get!' vs. *mār-iy-ma mír* [- _ _ -] 'let's get money!'. The 1st plural suffix *-má* bears H tone, leaving little "room" for the contour, so it may be that a contour is optional in this case. See 4:§1.2.3.6.2 for discussion.

Second and Third Person Indirect Object Clitics

The examples below show that 2nd and 3rd person Indirect Object clitics (5:§4.2) impose L on a following tonal domain. The underlying H of *kábə* 'gown' can be heard in *tákən kábə* [- - -] 'this gown'; the underlying Toneless-H pattern of *búwáy* [- -] 'francolin' can be heard in the citation form, where the Toneless initial domain becomes H by DEFAULT H TONE. See examples below showing the H of *mír* 'money'. Tones on the verbs and clitics are described in Chapter 4. The hyphenated *-a-* following the verb root is the marker of the Indirect Object Stem (4:§1.1.2).

L H L _r H / bəs-a-tla kabə	→	L H L (H) / bəs-a-tla kabə	[_ - - _]	'wash a gown for her!' (Imperative)
H H L L _r H * a tə́f-a-ya búway	→	L H L L H / a tə́f-a-ya búway	[_ - - _ -]	'he shot a francolin for him' (Perfective)
L L H L _r H də ts-a-na mír	→	L L H L (H) / də ts-a-na mír	[_ - - _]	'that he give you (pl) money' (Subjunctive)
L L H L _r H a ts-a-ya mír	→	L L H L (H) / a ts-a-ya mír	[_ - - _]	'he gave him money' (Perfective)
H H L L _r H a mar-a-ya mír	→	L H L L (H) / a mar-a-ya mír	[_ - - _ -]	'he got money for him' (Perfective)
L H H L L _r H H tə́ s-aa ts-a-ghəm mír-ay	→	L H HL L (H)H / tə́ s-aa tsə́m mír-ay	[- √ _ -] ²⁴	'he will give you (fs) money' (Imperfective)

The floating L does *not* occur with first person indirect object clitics. Compare the surface tones of *mír* 'money' in the following examples with those above:

də́ ts-am mír	[_ - -]	'that he give me money' (Subjunctive)
tə́ s-áa ts-á-m mír-ay	[_ - - -]	'he will give me money' (Imperfective)
də́ ts-a-ma mír	[_ - - -]	'that he give us money' (Subjunctive)
tə́ s-áa ts-á-ma mír-ay	[_ - - - -]	'he will give us money' (Imperfective)

Following is a complete list of the morphemes which I have identified as having a final floating L, each with an illustration showing the effect of that L. For further examples and explanation of the morphology and syntax, see the parenthesized sections.

²⁴The H-L sequence on *-á-ghəm* '... to you (fs)' has been contracted onto a single syllable because of a contraction rule affecting intervocalic *lghl* (2:§1.2.2). The result is a phonetic falling contour. This differs from the contour on the plural Imperative suffix *-iy* mentioned in the preceding section, which appears on a single underlying syllable rime and thus has no phonetic explanation. Moreover, the contracted form moreover has three moras, which can admit a falling contour elsewhere—cf. fn. 9.

- **HL verbs in verbal TAM's** (5:§2.1) See above.
- **Plural Imperative suffix *iy*** (4:§1.2.3.6.2) See above.
- **2nd & 3rd person IO clitics** (5:§4.3) See above.
- **3rd plural DO and ICP clitic *-tlən*** (4:§1.2.2, 5:§§4.1-2)

It is difficult to illustrate the floating L with substantive items following *-tlən*.²⁵ However, an otherwise unexplained L shows up on the Totality affix *-áy* and the negative *-úw* when they follow just the 3rd plural DO and ICP clitic (as well as the IO clitic, of course—see immediately above). The tone on *-tlən* itself, which varies depending on verbal tone class, does not matter. See end of §5 for more discussion of *-áy*.

tə s-áa zàra-tlən-ày [_ - _ - _ -]	'he will call them'
he Tot-Ipf call-them-Tot	
(cf. tə s-áa zàr-ɣɣm-áy /... zàra-ghəm.../ [_ - _ - _ -]	'he will call you (fs)')
tə s-áa mára-tlən-ày [_ - _ - _ -]	'he will get them'
he Tot-Ipf get-them-Tot	
(cf. tə s-áa már-úwn-ày [_ - _ - _ -]	'he got me')
tlən s-áa zàa-tlən-ày [_ - _ - _ -]	'they entered'
they Tot-Ipf enter-ICP-Tot	
(cf. mən s-áa z-ùwn-áy [_ - _ - _ -]	'I entered'
tlən s-áa dzára-tlən-ày [_ - _ - _ -]	'they dispersed'
they Tot-Ipf disperse-ICP-Tot	
(cf. mìy s-áa dzáara-m-áy [_ - _ - _ -]	'we dispersed')
tlən má dzára-tlən-úw [_ - _ - _ -]	'they will not disperse'
they NEG disperse-ICP-NEG	
(cf. tś má rád-úws-úw [_ - _ - _ -]	'it will decay')

- ***náy*** Presentative (11:§4.7) See above.
- ***súw*** Totality marker (7:§2.1) (See §5 below for tones of *súw* and *-áy*)

L H H L _v H	→	L H L H	[_ - _ - _ -]	'he got a donkey'
*				
a mar suw zhaak-ay		a mar suw zhaak-ay		
LL H L _v H H	→	LL H L(H) H	[_ - _ - _ -]	'he washed a gown for me'
a bəs-a-n suw kab-ay		a bəs-a-n suw kab-ay		

²⁵Potential cases of substantives following DO or ICP clitics would be a locative phrase following the clitic (*I saw them behind the house, they sat down on the chairs*) or a nominal indirect object following a direct object clitic (*I showed them to John*). I seem to have no examples of these types in elicited data or texts.

- ***níy*** '& Co.' (10:§3.2.2) (See §5 below for tones of *níy*)

H L _v *	→	H L	[- _ -]	'Kasham & Co.'
níy Kasham		níy Kasham		
H L _v H	→	H L (H)	[- _]	'things like sorghum'
níy zuw		níy zuw		

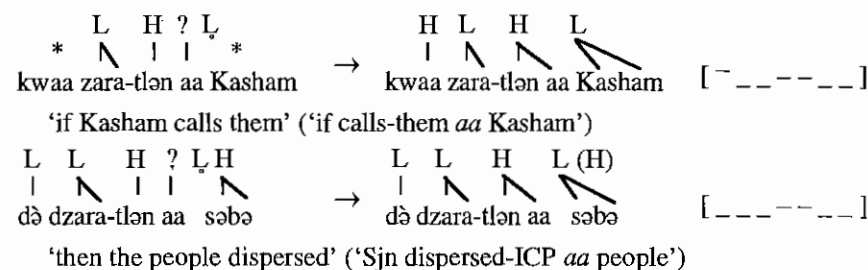
- ***ənáa*** 'with' Comitative preposition (10:§6, 11:§1.6)

L L H L _v *	→	L L H L	[_ - - - -]	'a horse and a donkey'
duwakə 'ənaa zhaakə		duwakə 'ənaa zhaakə		
L L H L _v H	→	L L H L (H)	[_ - - -]	'a ram and a goat'
mbərgu 'ənaa mədə		mbərgu 'ənaa mədə		

- ***aa*** 'from' (11:§1.4.2), ***aa*** 'with' Instrumental (11:§1.5), ***aa*** "with respect to" (11:§3), ***aa*** marker of postverbal subject (11:§1.2.1)

These prepositions seem to be identical in behavior with respect to their complements. Some of them may be a single polyfunctional morpheme. I did not collect systematic data on the tones of most of them. In context, their tones are elusive, in part because they often contract with preceding vowels, making it difficult to know which tone is being heard, in part because they all sometimes occur with a "pleonastic" *aa* (11:§1.13), making it difficult to know what the "real" preposition is. Available data does make clear that instrumental 'with' and the postverbal subject marker have a floating L which replaces the next tone, and textual data from the others is compatible with this analysis. The examples illustrate just instrumental 'with' and the postverbal subject marker, where clear, carefully recorded examples are available. The tone given as "underlying" on the preposition is the surface tone given in the examples. In 'with a stick', LOW RAISING does not apply to the initial syllable of *kwambal* 'stick' even though it looks as if the environment is met. One could appeal to either rule ordering or some special property attributed to floating tones, both admittedly ad hoc solutions. See §6.4 for further discussion of these words.

L L _v *	→	L L	[_ - -]	'with a machete'
aa gaday		aa gaday		
L L _v H	→	L L (H)	[_ - -]	'with an ax'
aa giti		aa giti		
L L _v L	→	L L (L)	[_ - -]	'with a stick'
aa kwambal		aa kwambal		



Considering the fact that a considerable proportion of the morphemes with a floating L could be called “prepositions” in one sense or another, and most words that fall into the “preposition-like” category do have floating L, it is worth pointing out that final floating L is not a property of *all* such words. The preposition *wán* ‘like’ (itself Toneless) follows the normal tonal phrasing rules, e.g. H is downstepped following it, as in *wán mádə* [- - -] ‘like a goat’, and Toneless copies its tone, as in *wán Kasham* [- - -] ‘like Kasham’. Another preposition-like morpheme which phrases in a regular way with what follows is the negative *má*, which is underlyingly H, e.g. *à bəta má zhaak-uw* [- - - - -] ‘he didn’t untie the donkey’ (Toneless *zhaakə* ‘donkey’ takes the same tone as *má*).

5. Non-Downstepping H’s and Other Residual Tone Problems

There is one substantive item and several monosyllabic grammatical morphemes which have the following tone pattern:

- (a) H after L
- (b) H after H, but at the same level rather than downstepped H
- (c) H phrase initial

Characteristic (a) suggests that the underlying tone is H, but characteristics (b) and (c) are behaviors expected of Toneless domains via TONE SPREAD and DEFAULT H TONE respectively. Because the words in question always bear H tone, I conceive of them as underlying H but marked to not undergo INITIAL H LOWERING or HIGH REGISTER SETTING after H.

All but one of the items that I have discovered with these characteristics are monosyllabic grammatical morphemes rather than lexical substantives. I have identified the following, but there may be others.

- *várkə* ‘boy’ (see §2.2 above, Toneless 3-mora nouns)

As pointed out in fn. 7, this noun is unique in Miya. It is the only apparently Toneless 3-mora noun with the segmental configuration CVCCə. Like all other Toneless nouns, this word is cited with a H tone pattern (= characteristic (c) above). However, it also bears H after L, rather than taking on the preceding L (= characteristic (a) above). Aside from being the only substantive included in the present section, it differs from the other items here in that it does not share characteristic (b) with them, i.e. it is pronounced with downstepped H after H rather than H at the same pitch as preceding H.

<i>várkə</i> [- -]	‘boy’ (all H in isolation)
<i>mbàd’a várkə</i> [- - -]	‘thigh of a boy’ (H after L)
<i>nákən várkə</i> [- - - -]	‘this boy’ (downstepped H after H)

- *súw* Totality (7:§2.1)

<i>Ndikáy à diy súw səpən-áy</i>	‘Ndikay cooked [Tot] tuwo[-Tot]’ (H after L)
<i>mán kwiw súw kyàd-áy</i>	‘I caught [Tot] a giant rat[-Tot]’ (same after H) ²⁶
<i>Kwáa ts(a) aa yùw ká, súw pəlaká təl-áy.</i> (see 14:§3.2.2 for syntactic analysis)	[... - - - ...]
‘When the dawn comes, (it’s) just brewing the beer[-Tot].’ (H phrase initial)	

- *níy* ‘& Co.’ (10:§3.2.2)

<i>d-àa tórèe níy bàahə</i>	‘they greet father & Co.’ (H after L)
<i>níy wà də bàwa-tlən-à?</i>	‘who all went out?’ (H phrase initial)
<i>káman-wasə máyyúw, níy gádoo níy mánny níy jèeriy</i>	‘its equal did not exist, things like beds (and) things like (?)manniy (and) things like chairs’ (various tonal and phrasal environments)

- *bá* (m), *má* (f) ‘one who does ..., one who has ...’ (10:§5)

Bá and *má* show variation with respect to characteristic (b), i.e. according to my transcription, they sometimes are pronounced with the same level as a preceding H, sometimes with a downstepped H after H. Phrases with these morphemes are very common, and I have transcribed enough examples with both patterns to be confident that this variation is real.

<i>sərəm má mbánya</i> [- - - -]	‘knife which is good’ (H after L)
<i>ácám ba mbánna</i> [- - - -]	‘work which is good’ (same after H)
<i>hám bá táw</i> [- - -]	‘food (thing for eating)’ (downstep after H)
<i>bá mír, má mír</i> [- -]	‘one who has money (m, f)’ (H phrase initial)

- *ká* Previous Reference Marker (10:§2.1)

<i>mbərgu ká</i> [- -]	‘the ram’ (H after L)
<i>dlórkíy ka</i> [- -]	‘the chicken’ (same after H)
(<i>ká</i> cannot appear phrase initial)	

- *-áy* Totality (7:§2.1), *-úw* Negative (5:§3.5)

Two further morphemes with idiosyncratic tonal properties are the phrase final Totality affix *-áy* (7:§2.1) and the phrase final negative marker *-úw* (5:§3.5). These morphemes, too, appear to bear non-downstepping and non-lowering H. This is illustrated with *-áy* in the first three examples below (the first two repeated from §4, examples illustrating the floating L attached to *súw*). However, its tone is replaced by L when it contracts with a L clitic (4th example) or is replaced by floating L (5th example).

²⁶The verb *kwiw* ‘catch’ is a HL verb, which is one of the forms having a floating L tone which normally replaces a following tone (§4). The floating L does not associate with *súw*, which retains its H.

à már súw zhàak-áy 'he got a donkey' (H after L)
 à bəs-an súw kàb-áy 'he washed the gown for me' (H after L)
 t̀è s-áa zàa m̀ə́d-ay 'he will call a goat' (H with no downstep after H)
 /nj̀ə s-áa zàa-zà + ay/ → nj̀ə s-áa zàa-zà̀y 'she will enter' (L with L clitic)
 she Tot-Ipf enter-ICP Tot
 (cf. /m̀iy s-áa zàa-má + ay/ → m̀iy s-áa zàa-má̀y 'we will enter' (H with H clitic))
 /tl̀ən s-áa zàa-tl̀əǹ + ay/ → tl̀ən s-áa zàa-tl̀əǹ-à̀y 'they entered' (floating L)
 they Tot-Ipf enter-ICP-Tot

The negative behaves similarly (see 5:§3.5 for further discussion):

t̀ə má zà-uws-úw 'he will not call him' (H after L)
 (cf. d̀ə zar-uwsə 'that he call him', with all L on the pronoun)
 t̀ə má b̀əta zhaak-uw 'he will not untie a donkey' (H on same pitch as preceding H)

6. Tonal Phrases

The tone rules and tonal replacements in §§3-4 apply within any tonal phrase. In this section I outline the main structures which constitute tonal phrases, and I also make explicit certain structures which do not constitute tonal phrases. Tone phrases seem to correspond closely to Phonological Phrases (P-Phrases) as described in such theoretically oriented work as Hayes (1989)—see §7 for discussion of phrasing in general.

6.1. Tonal phrasing within noun phrases. All constituents within a noun phrase form a single tonal phrase. A number of these appear in examples in preceding sections. Here I list the main binary constituent groups with an example or two showing the operation of at least one tone rule. See sections above in this chapter, esp. §3.1, and the parenthesized sections for further examples. (ø = Toneless domain)

• Determiuer + Noun (10:§§2.2-3)

Lexical	Citation forms	Phrasal tones	
/* + H/	nákən + m̀ə́d-ə	→ nákən m̀ə́d-ə [----]	'this ram'
/* + *-H/	tákən + t̀ə́máku	→ tákən t̀ə́máku [-----]	'this sheep'
/* + H/	wíy + s̀əm	→ wíy s̀əm [--]	'this man'
/* + */	wíya + 'ám	→ wíya 'ám [----]	'this woman'

• Adjective + Noun (10:§4.1)

/L + H/	pàpəra + k̀utə	→ pàpəra k̀utə [----]	'broken thing'
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• Noun + Adjective (10:§4.1)

/H + H/	m̀ə́d-ə + r̀inna	→ m̀ə́d-ə r̀inna [----]	'black castrated goat'
/* + H/	'áfuw + r̀inya	→ 'áfuw r̀inya [----]	'black nanny goat'

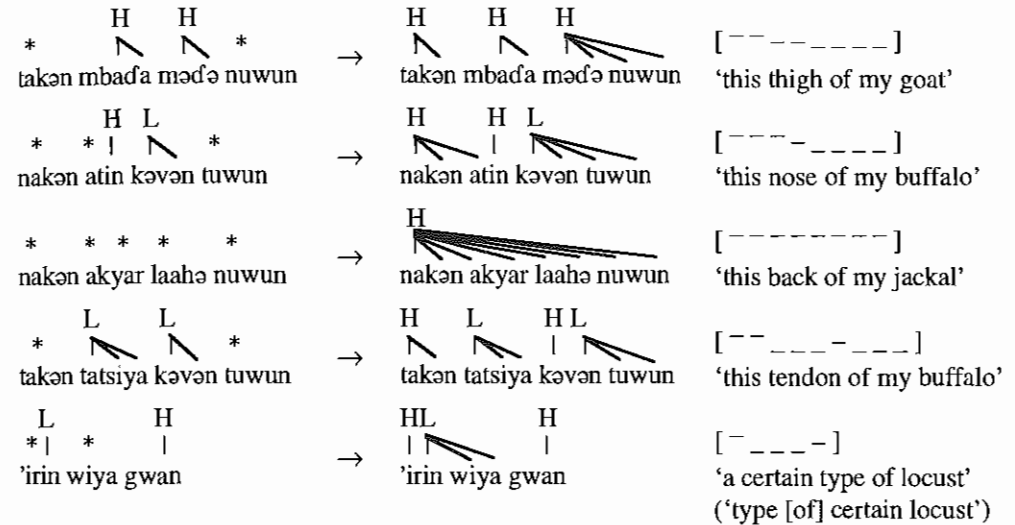
• Noun + Number (10:§4.2)

/* + *-L/	'ám + ẁut̀ə	→ 'ám ẁut̀ə [--_]	'one woman'
/L + L/	t̀əvam + ts̀ər	→ t̀əvam ts̀ər [---]	'two women'

• Direct and Linked Genitives (10:§3.1, §3.3—see esp. §3.1.1, §3.3.1 for tones)

/H + L/ p̀əram + k̀ə̀vən → p̀əram k̀ə̀vən [_ _ - _] 'blood of a buffalo'
 /*-L + * + */ t̀ə́makwiy + ǹiy + Kásham → t̀ə́makwiy niy Kasham [- - - - -]
 'Kasham's sheep'

Any combination of such binary constituencies within a single noun phrase will form a tonal phrase, of course. In the following examples, TONE SPREAD associates a Toneless domain with a preceding tone or collapses consecutive initial Toneless domains into a single domain (as in the second and third examples). DEFAULT H TONE provides initial Toneless domains with H. If a syllable beginning in other than a voiced obstruent is the initial syllable in a L domain following a L, as is the first syllable of k̀ə̀vən in the fourth example, it undergoes LOW RAISING. HIGH REGISTER SETTING downsteps each successive H domain other than a phrase initial H.



• BA/MA/SƏBA phrases, including relative clauses (10:§5)

The words bá (ms) and má (fs) 'one who does ..., one who has ...' head phrases corresponding to Hausa *m̀ai* (*bá m̀ir* 'one who has money' = Hausa *m̀ai kud̀ii*) as well as relative clauses (10:§5.2). As shown in §5 above, these words have idiosyncratic behavior in that they bear H in all environments, and after H they remain at the same level as the preceding H rather than downstepping, e.g. *ácám ba mbá́nna* [- - - -] 'work that is good'. One explanation for this tonal behavior might be that these words are underlyingly Toneless and never form part of a tonal phrase with the preceding word. They would thus always be phrase initial and would receive H tone by DEFAULT H TONE. However, their plural counterpart *s̀əba* 'ones who do ..., ones who have ...' (corresponding to Hausa *m̀aasu*) behaves as a normal word bearing underlying H: it has L in phrase initial position (*s̀əba m̀ir* 'those who have money' = Hausa *m̀aasu kud̀ii*), it has H after L (*t̀əvam s̀əba m̀ir* 'women who have money'), and it downsteps after H (*ǹiykin s̀əba s̀əba m̀ir* 'these people who have money'). Assuming that the singular and plural

counterparts all head the same phrase type, I therefore conclude, on the basis of the tonal behavior of *səba*, that these words form a tonal phrase with a preceding word in the same noun phrase. Examples just mentioned show the tonal phrasing when *bá/má/səba* link a head word with a simple noun, such as *mir* 'money'. The same phrasing applies when these words head a relative clause (with the provision that the tone on *bá* or *má* does not downstep following H), e.g.

* L H 'am ma bəsa-za	→	H H L L 'am ma bəsa-za	[-- --]	'the woman who bathed'
H H L H səbə səba bəsa-tlən	→	L H L H səbə səba bəsa-tlən	[-- -- --]	'the people who bathed'

See §6.3 below for some remarks on phrasing within a relative clause.

6.2. Tonal phrasing within verb phrases. A verb forms a tonal phrase with at least the following constituents:

• **Verb + Object (11:§1.3)**

Examples in §4 show that a verb forms a tonal phrase with an object noun. In that section, H L verbs are shown to impose a floating L on following noun objects. In other environments Verb + Object also shows the operation of the regular tonal rules. In the first example below, L tone on a verb in the Perfective (a verbal TAM) conditions LOW RAISING on the first syllable of a following L object. In the second example, a L verb in the Subjunctive (a nominal TAM) spreads its tone to a Toneless object.

L L L a zar mbərgu	→	L L H L a zar mbərgu	[-- -]	'he called a ram'
L L * də bəta zhaakə	→	L L də bəta zhaakə	[- - - -]	'that he untie a donkey'

Examples in §4 above also show that a Verb + IO clitic + Object form a tonal phrase. There, 2nd and 3rd person IO clitics always impose a floating L on the initial tonal domain of a direct object noun. A phrase comprising Verb + Direct Object + Indirect Object likewise forms a single tonal phrase. In the following example, the H object *mir* 'money' has H after L, and this H is spread to the Toneless domain of the following indirect object.²⁷

²⁷The order Verb + nominal Indirect Object + Direct Object is a dispreferred option. As an alternative to the example here, I was given *mən tsaa Kəsham mir* 'I gave Kasham money'. This has both an unexpected H on the Toneless word *Kəsham* and L on *mir*, which is the phrasal initial realization of underlying H. I elicited this example early in my fieldwork, before my ear was fully attuned to Miya tones, so there could be a transcription error, but it seems unlikely that I would have botched all tones in the phrase. It may therefore be the case that the order with a nominal Indirect Object before a Direct Object is "dispreferred" precisely because it is not a phrase, i.e. the direct object in this ordering may be akin to an afterthought.

* L H mən tsaa mir Kasham	→	H L H mən tsaa mir Kasham	[- - - -]	'I gave money to Kasham'
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• **Verb + Locative Phrase (11:§1.4)**

In the first example below, a H L verb in a verbal TAM (cf. §4 above) imposes floating L on the following locative *l'dáhə* (often → *d'rr* or *d'oo*—see 2:§1.2.2), which has underlying H tone (cf. *tlən d'rr* 'they are inside'). Note that at an intermediate stage, the H of *l'dáhə* would have associated with the initial Toneless domain of *tlərkáy*, with that single H subsequently being replaced by the floating L. In the second example, the underlying H of *vóna* 'in front of' (lit. 'mouth of') shows up after the L of the ICP clitic *-wən* rather than L, which would be the realization of phrase initial H.

H L H H mən 'ar d'oo tlərkay	→	H H L (H) H mən 'ar d'oo tlərkay	[- - - -]	'I put (it) into the calabash'
* H L H H mən tsər-wan vóna kam	→	H H L H H mən tsər-wan vóna kam	[- - - -]	'I stopped in front of the house'

Parallel to Verb + Direct Object + Indirect Object forming a tonal phrase, Verb + Direct Object + Locative forms a tonal phrase. In the following example the floating L of the verb replaces the tone of the object, *bakwal*. This L then conditions LOW RAISING on the L locative, *Miya* (cf. *à d'am aacám Miya* 'he did work in Miya', where the underlying L of *Miya* shows up after a H). In the second example, at an intermediate stage, the tone of *bakwal* associates with the initial Toneless domain of *aKando* by TONE SPREAD. This entire domain is then replaced by the floating L, which in turn conditions LOW RAISING on the final L of *aKando*.²⁸

L H L H L a bay bakwal Miya	→	L H L (H) H L a bay bakwal Miya	[- - - -]	'he took a bag to Miya'
L H L H * L a bay bakwal aKanoo	→	L H L (H) H a bay bakwal aKanoo	[- - - -]	'he took a bag to Kanoo'

6.3. Some tonal non-phrases. Not surprisingly, tonal phrasing is always interrupted at clause boundaries, e.g. between conditional and main clauses. I will not illustrate this here, but many examples of non-application of tone rules across such boundaries can be found throughout this grammar. Within clauses, the easiest way to demonstrate that tonal phrasing has been interrupted is to show that no conceivable application of known tone rules could account for the surface tones of an utterance. I have identified two clear intraclausal environments where there is a hiatus in tonal phrasing.

²⁸This is yet another example where Miya has reinterpreted the H-L tone pattern of the Hausa source word, *Kando*, as Toneless-L and has then applied the Miya tone rules in the normal way.

• **Subject + Verb (11:§1.2, esp. subsections illustrating preverbal subjects)**

Verb with surface L: Following L, a verb with initial L would be in the environment for LOW RAISING, yet the verb *ghâr* is not raised after the L subject, *Shàgin*. This could be explained if the verb were Toneless and thus were within a single L domain with the subject. However, *ghâr* must be underlyingly L because it retains its L tone after the H of *Kásham* (which is underlyingly Toneless but is raised to H by DEFAULT H TONE).

L	L H	H		
/				
Shagin	ghar-ta	s-ay	[_ _ _ _]	'Shagin grew old'
Shagin	grow old-ICP	Tot-Tot		
H	L H H			
/				
Kasham	ghar-ta	s-ay	[^ _ _ _]	'Kasham grew old'

Verb with surface H: Following L, a verb with initial H could be underlyingly L, raised to H by LOW RAISING, as in the first example below, but the verb *már* retains H after the H subject '*áfuw*', hence cannot be underlyingly L. On the other hand, H is downstepped after H in the same tonal phrase, yet the verb *már* is pronounced on the same pitch level as '*áfuw*' (non-downstepping is marked by # preceding the H).²⁹

L	H		
/	/		
mbərgu	mar s-aawas-ay	[_ _ - - -]	'the ram got grass'
ram	get Tot-grass-Tot		
H	#H		
/	/		
'áfuw	mar s-aawas-ay	[- - - - -]	'the goat got grass'

• **X+ Temporal Adverb (11:§1.11)**

Temporal adverbs do not form a tonal phrase with preceding constituents. The temporal adverbs in the examples below all have lexical Toneless-L tone patterns, which surface

²⁹If the verb *már* begins a new tonal phrase, as proposed here, we would expect its H to lower as a result of INITIAL H LOWERING, rather than to remain H at the same pitch level as the preceding H. This and other verbs of the H L tonal class also bear H in the Imperative, which is unequivocally phrase initial, e.g. *már* 'get (it)!' There are at least two solutions which would account for the surface facts and yet save the analysis of lexical tones and tone rules proposed here. The simplest solution (and the one I prefer) would be to include verbs of the H L class, such as *mar*, in the class of words described in §5, which have underlying H but are marked not to lower by INITIAL H LOWERING and not to downstep after H by HIGH REGISTER LOWERING. Another, more abstract solution would argue that these verbs (and presumably other verbs as well) are always preceded by some auxiliary, which is usually overt but may be "silent" in some environments, such as the Perfective after nominal subjects and the Imperative. The auxiliary, whether overt or silent, would always precede the verb in its tonal phrase, thus "protecting" it from any rules which apply only in phrase initial position. As noted in 4:§1.2.3.3, it is only verbs of the H L class which are recalcitrant as we seek an account of verb tones within the general system of Miya tonal processes. I therefore view the problem pointed out here as an isolated one which does not cast a shadow over the reality of the claimed generalizations.

as H-L in phrase initial position: *ghájà* 'when?', *bónà* 'yesterday', *rádzà* 'in the evening'. These adverbs retain this H-L pattern regardless of preceding tone. In the first three examples, the adverbs follow L. If the adverbs formed a tonal phrase with the preceding word, the preceding L would associate with the initial Toneless domain of the adverb, giving *à *náy-wàn bôná* [_ - _ -], etc. In the last example, the adverb is preceded by the ICP clitic *-tlán*, which (as shown in §4) is followed by a floating L. Were *ghájà* in the same tonal phrase as *-tlán*, this floating L would replace the initial tone of *ghájà*.

Q: à náy-fə ghájà?	[_ - _ -]	'when did he see you (ms)?'
A: à náy-wàn bôná	[_ - _ -]	'he saw me yesterday'
də b-úws aa Kásham rádzà	[_ - - _ -]	'that Kasham come in the evening'
Sjn come-ICP PS Kasham evening		
à dzar-tlən () ghájà?	[_ - - -]	'when did they disperse?'

6.4. Some likely cases: adjunct phrases. Several cases, which we may informally group as "adjunct" phrases, all introduced by prepositions, appear not to form a tonal phrase with preceding elements, though there are some questions about the data. The problem is the difficulty of independently checking the tones of the prepositions themselves. One must therefore observe their behavior in phrasal contexts and attempt to infer, based on the well-attested processes above, what their tones might be. Based on those inferences, one can attempt to decide whether they form a tonal phrase with what precedes or not. Most evidence argues against their forming a tonal phrase with what precedes.

• **Comitative preposition 'ənáá' (10:§6, 11:§1.6)**

The preposition '*ənáá*' or its variant '*əfáá*' 'with' conjoins noun phrases (10:§6) and forms comitative phrases (11:§1.6). Tonal evidence alone argues straightforwardly against tonal phrasing of anything with a following '*ənáá*' phrase. This preposition is always pronounced with the pattern L-H, regardless of preceding tone. (Because of its function, it never appears in utterance initial position.) The initial L after a preceding H is consistent with underlying L, but if it were in the same tonal phrase as the preceding, the L syllable 'ə- would undergo LOW RAISING after L. That '*ənáá*' comitative phrases would not phrase tonally with what precedes is not unexpected, but one would expect that within a noun phrase, *conjoined nouns* would form a tonal phrase. The following examples show that this is not the case:

dləntə 'ənáá dər-wétli	[- - - -]	'a lion and a leopard'
mbərgu 'ənáá mədə	[_ - - -]	'a ram and a goat'

• **Adjunct phrases with preposition(s) aa': Instrumental (11:§1.5), Locative source (11:§1.4.2), "with respect to" (11:§3), Postverbal Subject marker (11:§1.2.1)**

In §4, these prepositions are listed together as being among the Miya morphemes which have a final floating L. That shared tonal behavior is paralleled by the difficulty of determining unequivocally what the tones of the prepositions themselves are. The difficulty arises from a number of factors, including the following: uncertainty about phrase initial tones, thus making it difficult to know what phrase medial derived tones to expect; frequent

presence of "pleonastic" *aa* (11:§1.13), making unclear which is the "real" preposition; and contraction with preceding vowels, potentially obscuring underlying tones.³⁰ Added to these Miya structural problems is the fact that I have been unable to work out an analysis, based on my transcriptions of these prepositions in elicited and textual examples, which accounts for all the tokens in a consistent way. Here, I will discuss paradigms of just two of these items, the Postverbal Subject Marker and the Instrumental preposition. Though some of the *aa*'s above probably represent different syntactic uses of a single preposition, these two probably do not. They seem semantically and functionally unrelated, and the tones on the prepositions themselves seem to be different.

Postverbal Subject Marker

Consider the surface tones of the following phrases. I am somewhat mystified by the tones as I have transcribed them on the verb root *tsiy* 'ask', which is a verb of the HL class, but I am confident of the accuracy of the tones on the syllables for which I have given tone graphs. The phrases are all object relative clauses (10:§5.2.2) with a resumptive pronoun clitic (hyphenated following the verb) referring to the antecedent:

sóm báa mən̄n̄ tsiy-úwsə̀ [- _]	sóm bá tsiy-úws-aa Kàsham [- - _]
'the man whom I asked(-him)'	'the man whom Kasham asked(-him)'
'ám máa mən̄n̄ tsiyá-zà [- _]	'ám má tsiya-z-áa Kàsham [_ - _]
'the woman whom I asked(-her)'	'the woman whom Kasham asked(-her)'
sóbə̀ sábaa mən̄n̄ tsiya-tlən̄ [- _]	sóbə̀ sába tsiya-tlən̄ áa Kàsham [- - - _]
'the people whom I asked(-them)'	'the people whom Kasham asked(-them)'

Of interest are the tones on the clitics (-úwsə̀ 'him', (-a)-zà 'her', -tlən̄ 'them') and the Postverbal Subject Marker *aa*. The clitic -úwsə̀ ends in L, but if the vowel is elided (2:§2.2.4), that L is normally overridden by the tone of the eliding vowel; (-a)-zà ends in L, and that L normally overrides the following tone if vowel elision takes place; -tlən̄ ends in L and, as shown in §4, it is followed by floating L, which normally replaces any following tone in the same phrase. These "normal" effects can be illustrated with the Totality clitic -áy, which bears H when its tone is not overridden for some reason (illustrations are with the verb *mar* 'get', which belongs to the same tone class as *tsiy*—I do not have this paradigm for *tsiy*):

tə̀ s-áa már-uws-ay [_ - - -]	'he will get him'
tə̀ s-áa mára-z-áy [_ - - -]	'he will get her'
tə̀ s-áa mára-tlən̄-ay [_ - - -]	'he will get them'

³⁰Contraction of a vowel with a following *aa* preposition would seem to be evidence for a single Phonological Phrase, and hence a single Tonal Phrase. I will suggest in §7 that vowel contraction is evidence for phrasing at the *Intonational Phrase* level but not necessarily at the Phonological Phrase level.

Despite the tones of the clitics when phrase final and their tonal interaction with an element in the same tonal phrase (here, the clitic -áy), the Postverbal Subject Marker (PSM) bears H tone in all the examples in the right-hand column above. Based on the well-attested tone processes of Miya, I can conceive of only one account for this, viz. *áa Kàsham* in these examples begins a new tonal phrase, the PSM is Toneless, and by DEFAULT H TONE, it takes on H as its phrase initial tone. A perusal of examples of postverbal subjects in various syntactic environments shows that a large majority have surface H on the PSM *aa*, supporting the analysis here.³¹ There are a few examples like the following, however, with unexplained L on the PSM: *biti báa də̀ baa ghádúw aa t̄ áa Kàsham* 'the ax which Kasham chopped wood with (it)' (see 10:§5.2.4 for full analysis of this sentence).

See §7 for vowel contraction and tonal behavior as diagnostics for phrasing.

Instrumental preposition

Instrumental phrases constitute one of the few cases where it is possible to elicit isolated phrases with the preposition in utterance initial position (see 11:§1.5 for examples). In this environment, the preposition consistently bears L, showing that the preposition has either underlying L tone or underlying H lowered by INITIAL H LOWERING (see first example below). In the second example below, the preposition is L following L. This tone would be inconsistent with an account phrasing it with the preceding tone regardless of whether it were underlyingly H (in which case it would be pronounced H) or underlyingly L (in which case it would be raised by LOW RAISING). The third example, where the preposition bears L after H, suggests that the underlying tone is L or that it is H at the beginning of a new phrase—both interpretations jibe with non-phrasing with the preceding.

à kwambal [_ - -]	'with a stick'
món gùdzə̀ Kasham aa gahə̀ [- - - - -]	'I pointed at Kasham with a stalk'
món kùwa zúw àa njə̀ ³² [- - - -]	'I harvested sorghum with it'

A perusal of available data for examples with instrumental phrases shows that a majority manifest tonal behavior consistent with that presented above, but examples like the following, with H on the preposition after H are not uncommon:³³

món d̄ə̀hón aa kàrafə̀ [- - - -]	'I tied (it) with palm leaves'
------------------------------------	--------------------------------

³¹Cases with pleonastic *aa* constitute a consistent exception—see 11:§1.13 for examples. Here the pleonastic *aa* bears H and the "PSM" bears L. This suggests that perhaps it is the first *aa* which is the "real" preposition and the second *aa* which is "pleonastic". The H on the first *aa* would be explained by the tonal phrasing, and the L on the second *aa* would be explained by the floating L associated with the preposition.

³²In eliciting the corresponding sentence with a nominal instrument, I was given a phrase with a pleonastic *aa*, viz. *món kùwa zúw aa àa magirbi* 'I harvested sorghum with a harvesting tool'. The first *aa* bears H, the second L. Purely as a convention for consistency in this book, I have glossed the first as pleonastic, the second as the "real" preposition, but I have no principled reason for making this choice other than glossing the *aa* closest to the instrument as the preposition.

³³Instrumental phrases with a pleonastic *aa* (11:§1.13) behave like examples with the Postverbal Subject Marker, as described in fn. 31. This is likewise inconsistent with the tones seen in examples above with the instrumental preposition alone.

• **Two further candidates:** *wán* 'like'; (*a*)*dama* 'in order to, because, for the sake of' (11:§1.12, 14:§9)

Two further constituent types which probably do not phrase tonally with the preceding element are phrases headed by the preposition *wán* 'like', mentioned briefly at the end of §4, and the preposition/conjunction (*a*)*dama* 'in order to, because, for the sake of'. *Wán* in utterance initial position bears H, suggesting that it is underlyingly Toneless. If it formed a tonal phrase with the preceding, it would therefore copy that tone. I have very few examples of *wán* in context. In the few that I have, *wán* has H tone, suggesting that it does not phrase with what precedes, but the available syntactic contexts are such that one would predict non-phrasing in any case, e.g. *dà báy wáshasham, wàtoo, wán nuwun* 'that he reach (the number of) years, that is to say, like mine'.³⁴

I suggest non-phrasing with (*a*)*dama* on structural rather than phonological grounds. Cross-linguistically, purpose/reason phrases are clearly adjuncts, for example, permitting freedom of ordering comparable to adjuncts such as temporal adverbs. In my data, examples of (*a*)*dama* show such variation in tonal transcription that I cannot state any generalizations. This may be partly due to the fact that this preposition/conjunction has both a prefixed and unprefixed form, which seem to differ tonally.

7. Remarks on the Prosodic Hierarchy in Miya

Hayes (1989), following earlier work (see Hayes 1989 for references), proposes five levels of phonological phrasing, with a phrase at each level being exhaustively included in the next higher level. This framework is called the Prosodic Hierarchy. The phrasing levels from lowest to highest are *Word*, *Clitic Group*, *Phonological Phrase* (P-phrase), *Intonational Phrase* (I-phrase), and *Utterance*.

The Prosodic Hierarchy shows correspondence to syntactic structure, but there is not a one to one relation between phonological phrase bracketing and syntactic constituent type. Although all languages undoubtedly adhere to hierarchically organized phonological phrasing along the lines of the Prosodic Hierarchy, the manifestations of phrasing differ from language to language. Depending on the language, indicators of phrasing levels may include features of intonation, stress, tone, segmental alternations, etc.

The facts of Miya phonology presented in Chapters 2 and 3 provide evidence for differentiating the five levels that Hayes proposes and no more than those five. In this section, I will present some of the diagnostics for each level. It will be evident that this is an area for more research.

• Word

Hayes (1989:206) says, "The lowest category on the Prosodic Hierarchy is the Word level. Numerous phonological rules are word bounded, including many rules of stress assignment and vowel harmony." Miya has both tonal and segmental diagnostics for the Word level. Words must adhere to the restrictions on lexical tones and tonal distribution

³⁴*Wán* is also a formative in the manner adverbial pro-forms *wánka* and *wánkən* 'thus, like this/that'. The few examples where tonal indicators are available suggest that these words do phrase with preceding elements, e.g. *dàga tl-uwsá, pátà kabə wánkən* 'when he got up, he shook his gown thus', with a L-H pattern on *wánkən*, conditioning by TONE SPREADING from the preceding syllable and LOW RAISING of *-kən*. See 11:§1.10 for a few further examples.

described in §2 and on word formation described in 2:§3. For example, if a string of syllables bears more than two tonal domains and/or it contains an underlying rising tone pattern (L-H), then that string comprises a level of phonological phrasing higher than the Word (see §2 for possible intra-word tone patterns).

As discussed in 2:§3, at the Word level, */ə/* cannot appear in a position not required by syllable structure constraints (see an example below under Clitic Group, where */ə/* can appear as an unconditioned vowel).

• Clitic Group

Hayes's (1989:208) ultimate characterization of the Clitic Group is rather complex. For discussion here, we can content ourselves with his more informal characterization (p. 207) that a Clitic Group is "a single content word together with all contiguous grammatical words in the same syntactic constituent." Under this characterization, and based on the diagnostics to be discussed, we can name the following as Clitic Groups: nouns with the prefix *a-* (8:§2.4.1); adjectives with gender agreement clitics (8:§3); verbs or nouns with pronominal clitics, verbs with proclitic auxiliaries; possibly prepositions with their complements, though these may be at the level of Phonological Phrase (P-phrase).

Tonally, the Clitic Group permits tone patterns not permitted within the word. For example, the Clitic Group, *ángarà-tlən* 'their leg' has three tones (Toneless-L-L→H-L-H), whereas no Word may have more than two tones. The surface pattern, which descends, then rises, could also never occur on a Word.

A Clitic Group permits segmental possibilities not found at the level of the Word, e.g. geminate consonants, as in *pàram-ma* 'our blood', and */ə/* in the environment VC₁—C₂V where C₁ + C₂ would be a permissible sequence, as in *árəhə* 'bow' (cf. *shìrhə* 'jealousy')—see 2:§3.1.2.

Certain diagnostics permit differentiation of the Clitic Group from the next higher level, the P-phrase. Morphological palatalization (2:§4) is bounded at the level of the Clitic Group. The feature [PALATALIZED] may spread from a root to both preceding and following clitics, e.g. *átim* 'nose' is a palatalized root, as shown by the internal [i] rather than [ə]. Its prefixed */a-/* may be fronted, as in *étim bíy* 'spring' ('nose [of] water'), and a clitic pronoun may be palatalized as in *látim-ghəm* → [dítinyìn] 'your (fs) nose' (see 2:§1.2.2 for rules affecting */gh/*).³⁵ Palatalization cannot spread outside a clitic group, e.g. *átim móđə* 'nose of a goat' cannot become **átim míđi*.

Assignment of underlying verbal tones applies to clitics but not nouns in the same function and linear position (4:§1.2.3), e.g. verbs of the L class assign L to pronominal object clitics but not nominal objects (*à zar-tla sáy* 'he called her' vs. *à zar móđə* 'he called

³⁵Examples such as those given here suffice to show that morphological palatalization is *not* bounded at the Word level and that it *is* bounded at the Clitic Group level. However, it is not a diagnostic for Clitic Group with broad application. First, the number of morphologically palatalized roots comprise only a minority of lexical items (2:§4), and among those, not all can even take clitics, e.g. only nouns that have an *a-* prefix and/or can take a direct genitive clitic (10:§3.1) are candidates for showing morphological palatalization at the Clitic Group level. Finally, as noted in 2:§4, morphological palatalization is variable in its effects on the segments in its domain. Thus, alongside [dítinyìn] 'your (fs) nose' I have recorded [ákyar-ghəm] 'your (fs) baek', with the same underlying clitic not palatalized with a palatalized host (shown by the palatalized *ky*). One would expect the 3rd fs clitic *-zà* to palatalize, but I recorded no examples of this, e.g. [dítin-zà] 'her nose', not *[dítin-zhà].

a *goat*'), and verbs of the H H class assign H to pronominal object clitics but not to nominal objects (*à bal-tlá say* 'he chopped it' vs. *à bal pé'e* 'he chopped a *branch*').

The rule contracting /*aghəl*/ → [rɾ] (2:§1.2.2) applies within a Clitic Group but not across Clitic Group boundaries, e.g. *lmbàd'a-ghəm* → [mbàd'ɾɾm] 'your (fs) thigh' vs. *lwùna ghòrùw* → [wùna ghòrùw] 'calf' ('child [of] cow'), not *[wùnrɾruw].

Preposition + object is a candidate for Clitic Group. English phrasing, for example, treats this construction as a Clitic Group, and in some Chadic languages, such as Bade, a pronominal object of a preposition takes the form of a possessive clitic. In Miya, pronominal objects of prepositions are Independent Pronouns, and I know of no phonological diagnostics which would specifically limit preposition + object to the level of the Clitic Group rather than the P-phrase. A possible diagnostic that could show preposition + object to *not* be a Clitic Group would be non-application of the rule /*aghəl*/ → [rɾ] mentioned above in a phrase such as *làa` ghèruw* 'with a cow'. I suspect that the rule would *not* apply, meaning that this is a P-phrase, but I have no examples of this type.

• Phonological Phrase (P-phrase)

Hayes (1989:211) relates the P-phrase directly to the syntax in saying, "The rules that form P-phrases refer to the X-bar system of the syntax ...: they apply within maximal projections, adjoining material to the head," by which he means essentially the phrase types NP, VP, and PP. It turns out that what I call "tonal phrases" in this chapter can be used to delimit a level of phrasing corresponding almost exactly to Hayes's characterization of the P-phrase. Tonal phrases cannot be equated directly to P-phrases, for Words and Clitic Groups also constitute tonal phrases. At the Word level, the surface L-H tone pattern of *dèrwétti* 'leopard' is derived from underlying H-H by INITIAL H LOWERING and H REGISTER SETTING. Within the Clitic Group, TONE SPREADING provides the tone of the gender suffixes of adjectives, as in *cùwcuw-nà* 'warm (m) vs. *ámbán-nà* 'good', and underlyingly L clitics undergo LOW RAISING when preceded by L, e.g. *ákyar-nà* 'your (pl) back', with L clitic, vs. *pèran-nà* 'your (pl) blood', with raised clitic.

However, if we can find environments in which the regular tone rules apply across boundaries where Clitic Group level rules are blocked, then we have evidence that the tone rules can also serve as a diagnostic for a level of phrasing above the Clitic Group. The examples *à zar-tlá sáy* 'he called *her*' vs. *à zar mádə* 'he called a *goat*' from the discussion of Clitic Groups provide the relevant environments. These examples with a L verb (and the parallel examples with a H H verb) show that the tone assigned to the clitic by the verb is not assigned to a nominal direct object. Yet the fact that the nominal direct object bears H because of H REGISTER SETTING shows that Verb + Object form a tonal phrase.

All the tonally phrased groupings discussed in §§6.1-2 are either NP's or VP's and are thus among the syntactic constituents which Hayes's characterization predicts would be P-phrases. As noted at the end of the discussion on Clitic Groups, Prepositional Phrases probably belong here as well. Conversely, the groupings discussed in §§6.3-4, where tonal phrasing is interrupted and which are thus not P-phrases, would *not* constitute X-bar level syntactic phrases either.

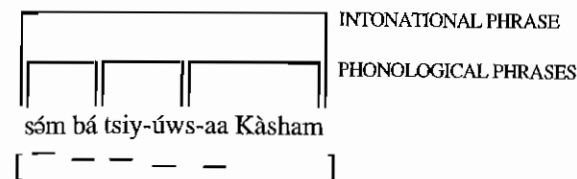
• Intonational Phrase (I-phrase)

Hayes (1989:218), notes, as have others, that "rules deriving I-phrases vary in their application and are harder to pin down" than rules which delineate P-phrases at a lower

level and Utterances at a higher level. He continues, "There are few syntactic loci that obligatorily correspond to the edge of an I-phrase." These quoted phrases apply to Miya, but I have identified two diagnostics which allow us at least to infer that a particular string is bounded at a level intermediate between P-phrase and Utterance.

The two diagnostics are *resetting the pitch level of H* to its highest level and the rule of VOWEL ELISION (2:§2.2.4). I propose that H is reset and that VOWEL ELISION is blocked at I-phrase boundaries. If we can find junctures where H is *not* reset and VOWEL ELISION *does* take place, yet where tonal phrasing (a diagnostic for the P-phrase level) is blocked, then those junctures must be *internal* to an I-phrase. The relevant configuration can be illustrated with an example from §6.4, which discusses *non*-phrasing of postverbal subjects with preceding constituents. The example is repeated here with the proposed bracketing of the I-phrase and P-phrase levels. The underlying form with lexical tone is given in slashes.

/sám bá tsíy-úwsə áa` Kasham/ 'the man whom Kasham asked'
man who ask-him PS Kasham



Briefly, the lower level of bracketings constitute P-phrases as shown by the following tonal indicators: *bá* is downstepped after H by H REGISTER SETTING; *tsíy-úwsə* is actually a Clitic Group, with tones assigned by the schema in 4:§1.2.3.3; underlyingly Toneless *Kasham* gets its tone from the floating L of the Postverbal Subject Marker (§4).

A hiatus in tonal phrasing, marking a juncture of P-phrases, occurs at *bá + tsíy-*, where the verb root *tsíy-* is H *at the same level* as the preceding H, i.e. the pitch level of this H has (i) neither been reset to the highest pitch level, as it would be at the beginning of an I-phrase, (ii) nor been downstepped, as it would be if the tonal rule of H REGISTER SETTING had applied to it. We can see that a verb of this class (the H L class) would be subject to H REGISTER SETTING after H if it were in the same tonal phrase, as in *tə s-áa má-r-uws-ay* 'he will get him', where the Imperfective clitic *áa* forms a Clitic Phrase with the verb and conditions downstepping on the verb root *már-*.

A hiatus of tonal phrasing takes place at *-úws + aa*, as shown by the fact that the Toneless *aa* has its phrase initial H rather than taking its tone from the underlying L of the clitic */-úwsə/*.³⁶ Note that as at the previous juncture, the pitch of the H of *áa* is at the same level as the previous H, rather than being reset to the highest pitch. Despite the hiatus in tonal phrasing, VOWEL ELISION takes place across the P-phrase juncture.

Assuming that resetting of H to the highest pitch and non-application of VOWEL ELISION signal Utterance junctures, it is evident that the example here must represent a phrase at an intermediate level between the Utterance and the P-phrase. That level is the

³⁶On the basis of this example, it might appear that when *aa* elides the final vowel of */-úwsə/* it likewise elides its tone, and the preposition then gets its tone from the preceding H. See discussion of this and other examples in §6.4 for further justification of this juncture.

I-phrase. The question arises as to what syntactic boundaries might coincide with I-phrase boundaries, keeping in mind Hayes's (1989:218) observation that "there are few syntactic loci that obligatorily correspond to the edge of an I-phrase." All the constituent groupings discussed in §§6.3-4 (nominal subject + verb, predicate adjunct phrases and preceding material) would seem to incorporate I-phrases. Some other candidates for I-phrasing would be topicalized elements and their "comments" (12:§5), various types of subordinate adverbial clauses and main clauses (14), a quotation marker followed by a direct quote (13:§6), and appositive phrases of various kinds.

• Utterance

Concerning the Utterance as a phonological phrasal level, Hayes (1989:219) says, "An Utterance comprises a maximal sequence between phonetic, structural pauses. By 'phonetic' I mean pauses that are not only heard by naive listeners but that involve the actual cessation of speaking. 'Structural' is intended to exclude hesitation pauses and other performance phenomena. Utterances normally correspond to full sentences, though not always." I have little to add to this as regards Miya. An Utterance should potentially include more than one I-phrase, and at the end of the preceding section, I have suggested a number of likely I-phrase junctures which would be internal to an Utterance. At least the two major diagnostics suggested for I-phrase boundaries—resetting of H to the highest pitch level and blocking of VOWEL ELISION—would also hold for Utterance boundaries. Utterance boundaries would, however, be excluded from occurring at the suggested I-phrase boundaries, e.g. between a nominal subject and a following verb. On current evidence, then, the main distinction in Miya between an Utterance and an I-phrase is syntactic rather than phonological.

Chapter 4

VERBS AND VERBAL NOUNS

1. Verb Classes

Most non-borrowed verbs (and many borrowed verbs) fall into one of eight groups, categorized by crosscutting termination and tone classes as follows:

	Termination Classes	Tone Classes
Monoconsonantal stems (MONOVERBS)	-a	L, H
Polyconsonantal stems (POLYVERBS)	-a, Ø	L, H H, H L

In the verb lexicon of 322 verbs available for this study, 297 of the verbs fall into one of the groups defined by these classes (ignoring minor irregularities in particular forms, some of which may be transcription errors or free phonological variation). There is one MONOVERB which has a Ø termination rather than the expected -a, and there are 24 recent Hausa loan verbs where the source language tone pattern is at least in part preserved (§1.2.3.7).

1.1. Termination classes and segmental structure

1.1.1. -a and Ø lexical termination classes. Termination classes refer to the way a verb stem ends in the "Verbal TAM's" (5:§2.1), i.e. Singular Imperative, Perfective, and Hortative. In these TAM's, some verb stems end in -a and some in either Ø or -a; the choice between Ø and -a is determined phonologically—basically, -a after a non-sonorant consonant or a consonant sequence, Ø elsewhere (cf. 2:§3.1.2). I will refer to this as the "Ø" class.

Stems with up to three consonants have the following structures:¹

MONOVERBS		Ca
POLYVERBS	• biconsonantal stems:	CVC(a)
	• triconsonantal stems:	CVC(V)C(a)

MONOVERBS all have the termination -a.² Among *biconsonantal stems*, although there are about twice as many Ø termination verbs as -a verbs (125 vs. 65), there is no way to predict termination class. However, the choice of stem medial vowel is less than

¹I have only three examples of stems with four consonants: *lankwasa* 'bend', *marduw* 'twist', and *dadɛngaya* 'discuss'. The first two are Hausa loans. The third is a pluractional form (7:§3) of *dɛnga* 'speak'. I have no examples of stems with more than four consonants.

²The only exception is the verb 'come', which appears as [bɛ] in some forms but as [buw] in others.

lexically free. Of the 65 biconsonantal stems with the *-a* termination, only one has a stem internal *a* (*caga-* 'precede'). On the other hand, internal vowels in the \emptyset class are roughly equally divided between *-a-* and *-ə-* (71 with internal *-a-*, 54 with *-ə-*).

Turning to *triconsonantal stems*, one finds that virtually no native non-derived verbs contain ANY *a*'s. Undrived native verbs such as *dəbən* 'transplant', *bərdə* 'hang' all belong to the \emptyset termination class and have only medial *-ə-*'s (placement of medial *-ə-*'s is determined phonologically—see 2:§3.1.2). Setting aside borrowed verbs, which also often fall outside the tonal classes, there are two sources for *a*'s in triconsonantal stems: addition of the transitizing suffix *-ay* (7:§4.1.1), e.g. *ghəmay-* 'lift, raise' < *ghəm-* 'mount', and pluractional formation (7:§3), e.g. *varka-* 'give birth to many' < *vərkə-* 'give birth'. The latter is the only source for *a* termination class among verbs of more than two consonants.³

There are a few Miya triconsonantal stems containing *a*'s for which there is no attested underived form, e.g. *doona* /*dawnal* 'look for' (?pluractional < **duwn*), *dəkay* 'hear, feel' (?transitized form < **dəkə*), *ngwarma* 'scowl' (?pluractional < **ngurmə*). Such stems, in addition to many loans with final *-a* (cf. §1.2.3.7), require that the modern Miya lexicon include stems of both the *a* and \emptyset termination classes for all POLYVERBS.⁴

1.1.2. Indirect object stems and participles. The verb in a clause containing an indirect object forms an indirect object stem by adding the termination *-a*. Tone class remains the same as for the plain stem. Verbs in "Nominal TAM's" (5:§2.2) use a form which I call the "participle" (§2.1). Participles end in *-aw* before pause, *-a* elsewhere. When a verb in a nominal TAM has an indirect object, it takes the indirect object stem rather than the participle. There are three pieces of evidence for this:

(1) Verb + IO clitic is identical in all TAM's whereas Verb + DO clitic or ICP differs for verbal and nominal TAM's:

VERB + IO

Perfective (verbal TAM):	à zara-tlá suw vək-áy	'he called a boy for her'
	Pf call-for her Tot boy-Tot	
Subjunctive (nominal TAM):	də zara-tlá vəkə	'that he call the boy for her'
	Sjn call-for her boy	

VERB + DO

Perfective (verbal TAM):	à zar-tla s-áy	'he called her'
Subjunctive (nominal TAM):	də zara-za	'that he call her'

³Newman (1975) was the first to reconstruct two lexical vowel termination classes for verbs. Schnh (1977) proposes a more specific reconstruction for proto-West Chadic, viz. that the *-a* termination class is limited to verbs of one or two root consonants. Miya conforms to this West Chadic pattern. Miya also conforms to a reconstructed numerical skewing in favoring \emptyset verbs over *a* verbs in biconsonantal roots. Miya differs from Schuh's (1977) reconstruction in not having a lexical distinction between *a* and \emptyset classes for MONOVERBS. The virtual elimination of \emptyset class MONOVERBS may be an older feature of West Chadic-B, since the Bade/Ngizim branch has also shifted nearly all MONOVERBS to the *a* class. Interestingly, Bade/Ngizim and Miya each have only a single \emptyset class MONOVERB: in Bade/Ngizim it is the verb 'go' and in Miya it is 'come' (cf. fn. 2 above).

⁴An alternative form for the root 'look for' is *dawun*, i.e. the final *-a* stem has been replaced by a \emptyset stem. This is evidence that Miya has extended the possibility of *a* vs. \emptyset stems to all canonical verb shapes.

(2) MONOVERBS have short vowels before IO clitics in all TAM's, but they have long vowels before DO and ICP clitics in nominal TAM's (see §1.1.3 for examples). MONOVERBS with IO clitics also have tonal idiosyncrasies not shared by these verbs with other clitics (see §1.2.3.4).

(3) It apparently is impossible to cliticize a DO pronoun to a verb in a clause containing an IO noun. Both in elicitation and in texts, examples of clauses with a pro-DO + N-IO configuration use the independent pronoun as direct object rather than the clitic, e.g.

á póra njý 'an ka	'one will slaughter it [a chicken] for the woman'
Pf slaughter it woman PRM	

The distinction between *-a* and \emptyset termination verbs (§1.1.1) is neutralized when they use the indirect object stem or participle:

	\emptyset termination, H H tone class	<i>a</i> termination, H H tone class
Perfective:	à raβə-tlá say 'he moistened it'	à bəta-tlá say 'he untied her'
IO stem:	à raβa-tlá ... 'he moistened ... for her'	à bəta-tlá ... 'he untied ... for her'
Participle:	də raβa-zá 'he moistens it'	də bəta-zá 'he unties it'

1.1.3. Vowel length of *-a* terminations. Final *-a* of POLYVERBS is always short, whether the *-a* is the lexical verb class termination, the IO stem termination, or the participle termination.

MONOVERBS have final short or long vowels as shown below. For the most part, vowel length can be explained by the requirement that a minimal Miya word have two moras (2:§3.2). We can think of MONOVERBS as having an underlying short vowel. When the verb has a clitic, this clitic adds at least one mora, which, together with the mora *-a* of the verb, satisfies the 2-mora minimum for a word. If a clitic is not present to satisfy this requirement, the verb adds a mora of length to the vowel. This account of the choice of long or short vowels for MONOVERBS does not explain the fourth group below ("Nominal TAM's with DO or ICP clitics"), where the verbs have long vowels even when a clitic is present. I have no non-ad hoc analysis for the long vowels in those cases.

Short final vowels

Verbal TAM's with any clitic:		
Perfective:	à-nja-tlən sáy [DO clitic]	'he is beyond them'
Hortative:	tà-tsa-ya mir [IO clitic]	'he should give him money'
Perfective:	à-za-ta sáy [ICP clitic]	'he entered'

IO stems with IO clitic in any TAM:		
Perfective [verbal TAM]:	à-tsa-ná suw mīr-áy	'he gave you (pl) money'
Subjunctive [nominal TAM]:	də-tsa-ná mīr	'that he give you (pl) money'

H tone MONOVERBS with 2nd singular ICP clitics in nominal TAM's:

fàa s-áa-tšá-fá-y	'you (m) will arise'
/mà s-áa-tlá-ghóm-ay/ → [màa s-áa-tlìx-m-áy]	'you (f) will arise'

fàa g-aa-ba-fó 'you (m) will go'
/màa g-aa-ba-ghóm → [màa g-aa-bóym] 'you (f) will go'

Long final vowels elsewhere

No clitic in any TAM:

Perfective [verbal TAM]: à-*taa* sáy 'he ate'
Perfective [verbal TAM]: à-*tsaa* zháakə 'he gave away a donkey'
Foc. Subject Pf.[nominal TAM]: wàa dó-*tsáa* zhaak-a? 'who gave a donkey?'
Imperfective [nominal TAM]: nè aa-*tsáa* mír Kasham 'I will give Kasham money'

Nominal TAM's with DO or ICP clitics (with two exceptions—see below)

Imperfective: t̄ s-*áa-njàa*-f-áy [DO clitic] 'he will be beyond him'
Foc. Subject Pf.: màa dó-*njàa*-tlón-à? [DO clitic] 'what will be beyond them?'
Neg. Subjunctive: fà t̄-*zaa*-f-úw [ICP clitic] 'don't enter'
Imperfective: hàn s-*áa-tl̄aa*-n-áy [ICP clitic] 'you (pl) will arise'

The two exceptions to long vowels before ICP clitics are the following: first, H tone MONOVERBS have short vowels before 2nd singular ICP's (see just above); second, all verbs in nominal TAM's, including POLYVERBS, replace the /-a/ of the verb with -uw- before 1st singular and 3rd masculine singular DO and ICP clitics (see Appendix I).

Because of the 2-mora minimum for a word, I assume that all MONOVERBS without pronominal clitics have long final -aa. In absolute final position (*njáa* 'rebel!' [sg. imperative]), the distinction between long and short vowels is neutralized (2:§2.2.5), precluding a way to test for whether the vowel is long or short. Miya does not allow long vowels in closed syllables, so when non-pronominal clitics close the syllable containing the verb, the vowel is short, e.g. /*njá(a)-áy/* → [*njáy*] 'rebel!' [sg. imperative + Totality]. However, one piece of evidence shows that in such cases the vowel is underlyingly long. In the Focused Subject Perfective, a nominal TAM, a verb not followed by an object ends in -w. This TAM is used with questioned subjects, which require a Q-clitic *a*. When this Q-clitic prevents the -w from closing the syllable, long *aa* is heard:

wàa dó-njáaw-a? 'who rebelled?' (root vowel of verb is in an open syllable)
t̄ dó-njáw 'HE rebelled' (root vowel of verb is in a closed syllable)

1.2. Tone classes. The verbal complex has the following structure:

(Proclitic +) Verb Stem (+ Enclitic)

Lexical tones of verbs have effects on and are affected by tones of clitics. I discuss verb tones as follows: §1.2.1 briefly summarizes general Miya tone processes, covered in detail in 3:§3; §1.2.2 lists all verbal clitics according to their underlying tones; §1.2.3 lays out the tone classes of native Miya verbs, with §§1.2.3.1-8 presenting details for each class.

1.2.1. Summary of Miya tonal processes. This section summarizes enough of the Miya tonal system to understand verb tones. For detailed discussion, see 3:§3.

Miya has several general tonal processes which work within a *tonal phrase*, regardless of the internal constituency of the phrase. Tonal phrases comprise most linearly contiguous

elements within a clause, e.g. a noun and any modifiers or a verb and any following objects. Of particular importance for the present discussion is the fact that A NOMINAL SUBJECT DOES NOT FORM A TONAL PHRASE WITH A FOLLOWING VERBAL COMPLEX (3:§6.3), i.e. a verbal complex always begins a tonal phrase ("verbal complex" being a verb stem and any associated clitics).

A *tonal domain* in Miya comprises the leftmost syllable associated with a tone and all syllables to its right up to a syllable associated with a new tone. Tonal domains may even cross major syntactic boundaries within a tonal phrase, e.g.⁵

L H H H
| / \ / |
t̄ d̄ mara dl̄arkiy 'HE got a chicken'
he Cl. get chicken
[_ _ _ _]

All tone rules but one (LOW RAISING below) operate on tonal domains, not syllables. A tonal domain may be associated with a L, a H, or it may be Toneless.

Tonal domains are assigned their surface tones by the following ordered processes:

STONE SPREAD: Associate a tone with a Toneless domain to the right (* marks the beginning of the Toneless domain).

L * L H * H
| | | |
zar zhaakə → zar zhaakə tsaa zhaakə → tsaa zhaakə
'call a donkey' 'give a donkey'

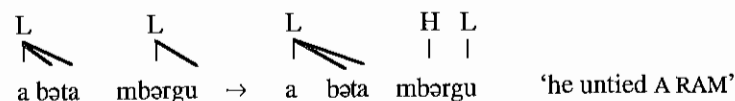
INITIAL H LOWERING: Lower H to L when initial in a tonal phrase.

H H L H
/ \ / \ / \
a b̄ta m̄əd̄ə → a b̄ta m̄əd̄ə 'he untied A CASTRATED GOAT'
[_ _ _ _]

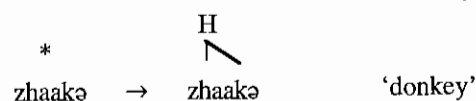
L domains are realized on low pitch with one exception, captured by the following rule, which is also the only Miya tone rule which affects a single syllable rather than a complete tonal domain.

LOW RAISING: When a L domain follows another L, replace the tone of the first syllable of the second L domain with H if that syllable does not begin in a voiced obstruent. (Note that prenasalized stops are *not* voiced obstruents in this respect. See 3:§3.4 for details.)

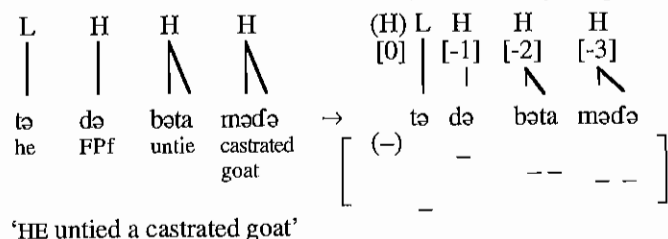
⁵Most of the discussion in this chapter will show tonal domains using the graphic representation of autosegmental phonology. However, as noted in 3:§1.2, throughout this study, the tone marking system utilizes the concept of tonal domains by using diacritics to mark only the tones at the beginnings of tonal domains. Thus, any syllables not bearing tone marks belong to the tonal domain extending back to the closest overt tone mark to the left. Examples with no tone marks at all are exactly that, i.e. tone is not marked, either because the tones as marked in my data are questionable or because tone is irrelevant.



DEFAULT HIGH TONE: Associate H with any unassociated Toneless domain.



HIGH REGISTER SETTING: Set H following any tone (H or L) one register step lower than that of a preceding H. (If the utterance begins in L, the level of the “preceding H” is the pitch that H *would* have taken, as shown by the parenthesized H below.)⁶



1.2.2. Clitic tones. Clitics may be Toneless, L, or H. Underlyingly H clitics differ from lexical words with initial H tone by not undergoing the rules for H domains mentioned in the preceding section, e.g. they do not set a new register level (= downstep) after a preceding H, and they are pronounced on a H pitch in phrase initial position.⁷ Following is a list of all verb clitics with their tones:

PROCLITICS

Toneless { *a* Perfective (5:§2.1.3)⁸
ta Hortative (5:§2.1.2)
 all Subjunctive clitics (5:§2.2.1)⁹

⁶Since HIGH REGISTER SETTING and INITIAL H LOWERING both lower a “new” H tone, these rules are, in a sense, the same process, with HIGH REGISTER SETTING being a sort of “total downstepping” after Ø tone.

⁷This is a feature of most, if not all, monosyllabic grammatical morphemes bearing H tone (see 3:§5). An alternative solution to giving these clitics underlying H would be to claim that these morphemes are Toneless and always initiate a tonal phrase. They could then be assigned H by DEFAULT H TONE for Toneless domains. This solution would not be wholly desirable because it would lead to certain paradoxes as regards deciding what does and does not constitute a tonal domain. See 3:§5 for morphemes with non-downstepping H and 3:§§6-7 for discussion of phrasing.

⁸In 3rd person, when there is no overt subject, the clitic alone appears. In 2nd person, the Perfective clitic combines with pronominal clitics to form a tonal unit, i.e. *f-a* ‘you (m)’, *m-a* ‘you (f)’, *n-a* ‘you (pl)’. The clitic is elided in 3rd person when the subject is overt and also in 1st person, where the subject is expressed by the non-clitic, independent pronouns.

⁹The morpheme *də* used in the Subjunctive with 3rd person subjects is clearly a proclitic. I consider the 1st and 2nd person markers in the Subjunctive to be cliticized to the verb as well, inasmuch as they behave tonally like the other Toneless proclitics. However, they have a pronominal “look”, e.g. 1st person singular is *mən*, which is segmentally identical to the independent pronoun, so an alternative analysis is

L { *àa* Imperfective (5:§2.2.3.1)
tà non-3rd person Negative Subjunctive (5:§3.3)

H { *á* Conditional Future (5:§2.2.5)
də Questioned/Focused Subject Perfective (5:§2.2.2)
áa Questioned/Focused Subject Perfective (5:§2.2.2)
má General Negative (5:§3, esp. 3.5)
tá 3rd person Negative Subjunctive (5:§3.3)
bíy and *jíy* (5:§§2.2.4 & 2.2.8)

ENCLITICS (5:§4)

There are three kinds of enclitics: Direct Object (DO) pronouns (5:§4.2), Indirect Object (IO) pronouns (5:§4.3) and Intransitive Copy Pronouns (ICP) (5:§4.1). There are a number of idiosyncratic tonal behaviors associated not only with the function of the enclitic and the TAM but also with specific persons.

Toneless { • all DO and ICP used in *verbal* TAM’s
 • all DO and ICP *except* 2nd pl. and 3rd pl. in *nominal* TAM’s
 • 1st person IO

The DO and ICP clitics are docking sites for floating tones, but for the IO’s, verb stem tone spreads to the clitic and floating tones are orphaned—see examples below.

L¹⁰ { • non-1st person IO
 • 2nd pl. (*nà*) and 3rd pl. (*tlə̀n`*) DO and ICP in *nominal* TAM’s

The L clitics other than the 2nd plural DO/ICP have the additional effect of replacing the next tone with L, an effect shared by a number of grammatical morphemes. I represent the trigger for this effect as a floating L following the morpheme (see 3:§4).

As noted for Toneless enclitics, the DO and ICP clitics are docking sites for floating tones whereas for the 1st person and IO clitics, the final stem tone spreads to the clitic and the floating tone is orphaned. These effects as well as the difference in behavior between the Toneless clitics and a clitic with L tone are illustrated below (* = beginning of a Toneless domain; ... represents Totality marker (7:§2) or Negative necessary to complete the sentence):

that 1st and 2nd persons in the Subjunctive have L pronominal subjects and the verb begins a new tonal phrase. The tonal results will turn out to be the same as for the analysis adopted here.

¹⁰In terms of surface tones, the L clitics are always polar to the preceding syllable. The polar effect is a result of LOW RAISING (see §1.2.1 and 3:§3.4). None of these clitics begin in a voiced obstruent, so the LOW RAISING rule will apply to all of them.

EFFECTS OF VERB WITH FLOATING L (§1.2.3.3.1—q.v. for proclitic tone) ON ENCLITICS

	1st prs. DO	Non-1st prs. DO	1st prs. IO	Non-1st prs. IO
	H H L * °	H H L * °	H H L * °	H H L L °
	a mar -ma ...	a mar -na ...	a mara -ma ...	a mara -na ...
			...	
DOCKING AND TONE SPREAD	H H L 	H H L 	H H(L) 	H H(L) L
	a mar -ma ...	a mar -na ...	a mara -ma ...	a mara -na ...
			...	
INITIAL H LOWERING	L H L 	L H L 	L H 	L H L
	a mar -ma ...	a mar -na ...	a mara -ma ...	a mara -na ...
			...	
	[_ - _]	[_ - _]	[_ - -]	[_ - -]
	'he found us'	'he found you (pl)'	'he got for us'	'he got for you (pl)'

EFFECTS OF VERB WITH FLOATING H (§1.2.3.2) ON ENCLITICS

	1st prs. DO	Non-1st prs. DO	1st prs. IO	Non-1st prs. IO
	H H * °	H H * °	H H * °	H H L °
	a bəta -ma ...	a bəta -na ...	a bəta -ma ...	a bəta -na ...
DOCKING AND SPREADING	H H 	H H 	H (H) 	H (H) L
	a bəta -ma ...	a bəta -na ...	a bəta -ma ...	a bəta -na ...
INITIAL H LOWERING	L H 	L H 	L 	L L
	a bəta -ma ...	a bəta -na ...	a bəta -ma ...	a bəta -na ...
LOW RAISING				L H
				a bəta -na ...
	[_ _ -]	[_ _ -]	[_ _ -]	[_ _ -]
	'he untied us'	'he untied you (pl)'	'he untied for us'	'he untied for you (pl)'

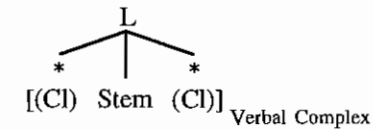
1.2.3. Verb tone classes. Verb stems with only one consonant (MONOVERBS) fall into two classes: "H" and "L". "Native" verb stems with more than one consonant (POLYVERBS) fall into one of three major tone classes: "L", "HH", "HL". Of the 322 verbs examined, only 24 recent Hausa loans do not obviously fall into one of these classes (see §1.2.3.4.7 for some discussion). The following table illustrates each of these classes with a representative verb from each termination class (§1.1). The numbers in parentheses are the number of verbs in the respective category out of the sample of 298 "native" verbs.

Whether a verb stem ends in Ø or -ə is phonologically determined (2:§3.1.2); I illustrate both possibilities but give a single figure for the group as a single termination class.

MONOVERBS:	"L"	"H"	
Cə	-----	bə 'come' (1)	
Ca	tsa 'give' (26)	kwa 'lack' (3)	
POLYVERBS:	"L"	"H H"	"H L"
CVC(ə)	zar 'call' (48)	bal 'chop' (23)	mar 'get' (54)
		rabə 'moisten'	təfə 'shoot'
CVCa	taka 'accompany' (36)	bəta 'untie' (27)	səna 'spend night' (2)
3 or more C's (Ø)	tənzə 'plant' (12)	gwarzə 'grow' (20)	tsəryə 'step on' (25)
	rəvəzə 'be fat'	dadəm 'fix'	zukuətə 'push'
3 or more C's (-a)	gyagiya 'learn' (11)	babəla 'say' (3)	tsooda 'carve' (7)
	yarda 'agree' (< Hausa)	(plurac. of bəla)	/tsawda/
			papəra 'cut' (plurac. of pər)

Sections 1.2.3.1-5 show how tone is assigned to the verbal complex (= verb stem and any clitics) for each tone class. Section 1.2.3.6 discusses Imperative tones. Section 1.2.3.7 discusses tones of borrowed verbs which deviate from the major tone patterns. Section 1.2.3.8 discusses the effects verbs have on following noun phrases. See Appendix II for a table of the "native" tone configurations.

1.2.3.1. "L" POLYVERBS. The tonal association pattern of "L" POLYVERBS can be represented as follows:



That is, associate L with a verb stem and any Toneless clitics:

Toneless clitics only

L da -bəsaw Sjn wash	L ta -təka -ya Hrt accompany DO	L a -rəvəzə -ta say Pf get-fat ICP Tot	H L a -tsatsəga -ya say Pf sit ICP Tot
'that he wash'	'he should accompany him'	'he got fat'	'he sat (repeatedly)' (plurac. of tsəga)

L proclitics

L L L L	L L L H
↙ ↘ ↘ ↘	↙ ↘ ↘ ↘
tə aa -bəs <u>u</u> -sə bəsaw	fa ta -zaru <u>w</u> -sə-uw
he IpF bathe ICP bathing	you NEG call DO NEG

VOWEL ELISION

L L L H	L L L H
↙ ↘ ↘ ↘	↙ ↘ ↘ ↘
t-aa-bəs <u>u</u> -sə bəsaw ¹¹	fa ta-zaru <u>w</u> -s-uw
'he will bathe'	'don't call him'

H proclitics

L H L *	H L H
↙ ↘ ↘	↙ ↘ ↘
waa də -zara-z-a?	ta -tsəgu <u>w</u> -sə -uw
who FPf call DO Q	NEG sit ICP NEG

VOWEL ELISION

L H L	H L H
↙ ↘ ↘	↙ ↘ ↘
waa də-zara-z-a?	ta ¹² -tsəgu <u>w</u> -s-uw
'who called her?'	'he shouldn't sit'

L enclitics

L L H L H H	L L L	L H L L H L H
↙ ↘ ↘ ↘ ↘	↙ ↘ ↘	↙ ↘ ↘ ↘ ↘ ↘
a -bəsa -tla suw kabə -ay	də -bəsa -na bəsaw	tə suw aa -zara-tlən -ay
Pf wash IO Tot gown Tot	Sjn wash DO washing	he Tot IpF call DO Tot

VOWEL ELISION, FLOATING TONE DOCKING, LOW RAISING

L H H L H	L H L H	L H L H L
↙ ↘ ↘ ↘	↙ ↘ ↘ ↘	↙ ↘ ↘ ↘
a-bəsa-tla suw kab-ay	də-bəsa-na bəsaw (cf. fn. 11)	tə-s-aa-zara-tlən-ay
[- - - - -]		
'he washed a gowu for her'	'that you (pl) wash'	'he will call them'

The rule of LOW RAISING raises the first syllable of a L domain following L when that syllable does not begin in a voiced obstruent. That rule can apply to the first syllable of "L" verbs. Note that the rule applies after VOWEL ELISION. When one vowel elides another, it

¹¹I have no phonological explanation for the H on the final syllable of the cognate complement, *bəsaw*. I have assumed that cognate complements (7:§5) are participles and hence should behave tonally like the main verb in nominal TAM's. Participles of L POLYVERBS used as main verbs have all L tones as expected, e.g. *də bəsaw* 'that he wash (it)' (Subjunctive). It may be that cognate complements are a special verb form or require a special tone rule. See fn. 13 for elision of ə of subject clitic *tə*.

¹²Recall ([1 of §1.2.2) that H clitics do not undergo INITIAL LOWERING.

is the tone of the first that dominates (= causes the second to be delinked) unless the first is ə.¹³ If the verbal complex begins with a L proclitic, LOW RAISING raises the first syllable of a "L" verb if the proclitic retains L tone, but if the L is replaced, a "L" verb does not have a raised tone (note that the first syllable of the cognate complement *tsəgaw* is also raised by LOW RAISING).

Proclitic retains surface L

L L L L	L
↙ ↘ ↘ ↘	↘
tə aa -tsəgu <u>w</u> -sə tsəgaw	
he IpF sit ICP sitting	

Proclitic tone is replaced by H

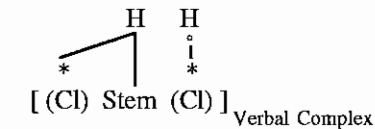
L H L L	H
↙ ↘ ↘ ↘	↘
tə suw aa-tsəgu <u>w</u> -sə -ay	
he Tot IpF sit ICP Tot	

VOWEL ELISION & LOW RAISING

L H L H L	H L
↙ ↘ ↘ ↘ ↘	↘ ↘
t-aa-tsəgu <u>w</u> -sə tsəgaw	
'he will SIT DOWN'	

L H L H	H
↙ ↘ ↘ ↘	↘
tə s-aa-tsəgu <u>w</u> -s-ay	
'he will sit down'	

1.2.3.2. "H H" POLYVERBS. The tonal association pattern for "H H" POLYVERBS can be represented as follows:



That is, associate the first H with any Toneless proclitics and the verb stem; associate the second, floating H with a Toneless enclitic. If there is no enclitic or if the enclitic has its own tone, the floating H is orphaned.

Toneless clitics only

H H	H H	H H H H	* H H H
↙ ↘	↙ ↘	↙ ↘ ↘ ↘	↙ ↘ ↘
də -balaw	ta -bəta -ya	mən rəvə <u>d</u> -u-wan say	zhaw balala-ta say
Sjn chop	Hrt untie DO	I-Pf get thin ICP Tot	rope break ICP Tot

¹³The vowel ə appears only where needed for proper syllabification (2:§3.1.2). Thus, the best phonological approach would be to have syllabification apply to entire phrases, which would preclude ə ever appearing contiguous to other vowels and as a consequence obviate the need for this "exception" to tonal dominance. For the description of verb tones, I have taken the "contraction" approach in order to retain morpheme similarity from example to example, rather than have a clitic sometimes appear as Cə, sometimes simply as C. See 3:§7 for some discussion of the interaction of VOWEL ELISION and tonal phrasing.

INITIAL H LOWERING & DEFAULT H association to Toneless domains

L (H)	L H	H L H H	H L H H
↘	↘	↘	↘
də-βalaw	ta-bəta-ya	mən rəvədu-wan say	zhaw βalala-ta say
'that he chop'	'he should untie him'	'I became thin'	'the rope broke up' (plurac. of <i>βal</i>)

Mən 'I' in 'I became thin' is a subject pronoun, not a clitic. It therefore is not associated with the H of the verb, nor is it in the same tonal phrase (3:§6.3). It and the Totality marker both bear H, and typical of monosyllabic grammatical morphemes, these H's are subject to neither INITIAL H LOWERING nor downstepping after H (3:§5).

L proclitics

L L H H L	L L H H H	L H L H H H
↘ °	↘	↘
njə aa -diya maa?	fa ta -ghədzə-fə -uw	tə suw aa -bətuw-sə -ay
she IpF eok what	you NEG nm ICP NEG	he Tot IpF nntie DO Tot

VOWEL ELISION

L H(H) L	L L H H	L H H H
↘	↘	↘
nj-aa-diya maa?	fa ta-ghədzə-f-uw	tə s-aa-bətuw-s-ay
[_ - - -]	[_ - - -]	[_ - - -]
'what will she cook?'	'don't turn around'	'he will untie him'

In 'he will untie him', the downstepped H on the verb can be accounted for regardless of where VOWEL ELISION is ordered. If VOWEL ELISION precedes any tone rules, H will automatically be lowered after H. If VOWEL ELISION applies after the rule assigning relative pitch levels to H's (INITIAL H LOWERING), the H on the verb stem will have been assigned a H at a pitch level lower than the level of the H on *suw* (which forms part of the same tonal phrase) because of the L on the clitic *aa*. When that L is obliterated because of VOWEL ELISION, the two H's become contiguous, being heard as H-Downstepped H.

H proclitics

L H H H *	H H H H	L H H H
↘ °	↘	↘
waa də -βalaw-a?	ta -bətuw-sə-uw	tə də -ghədzuw-sə
who FPf chop Q	NEG untie DO NEG	he FPf turn ICP

VOWEL ELISION

L H H(H)	H H H	L H H H
↘	↘	↘
waa də-βalaw-a?	ta-bətuw-s-uw	tə də-ghədzuw-sə
[_ - - -]	[_ - -]	[_ - - -]
'who chopped?'	'he shouldn't untie him'	'HE turned around'

The question marker *-a*, though a Toneless clitic, is not part of the verbal complex. Hence, the second H of the "H H" class tone schema cannot associate with it. Since it is left Toneless, it associates with the rightmost possible tone, i.e. the *first* H of the "H H" schema.

L enclitics

H H L H	L H H H L	L L H H L
↘ °	↘ °	↘ °
a -βala -ya say	tə də -βala -ya	fa ta -βala -ya -w
Pf chop IO Tot	he FPf chop IO	you NEG chop IO NEG

INITIAL H LOWERING & LOW RAISING

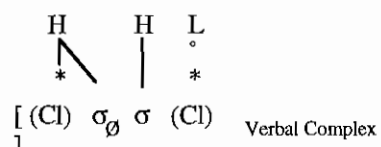
L H H	L H H L	L L H L
↘	↘	↘
a-βala-ya say	tə də-βala-ya	fa ta-βala-ya-w
[_ - - -]	[_ - - -]	[_ - - -]
'he chopped for him'	'HE chopped for him'	'don't chop for him'

With this class of verbs, when the verb tone is lowered by INITIAL LOWERING, there is surface tonal neutralization between Toneless clitics, which bear the second H tone, and L clitics, which are raised by LOW RAISING after L. Compare the following phrases after all tones rules have applied. I include a "L" class verb to show that the clitics have different underlying tones; phrases are in the subjunctive with cognate complements (see fn. 11 for the H on the second syllable of the cognate complement, *βasaw*):

	"L" class verb	"HH" class verb	
	L H	L H H	
	↘	↘	
Toneless clitic	də-βasa-fə βasaw	də-raβa-fə raβaw	'that he wash you (ms)'
(-fə 'you (m.s.)')	[_ - - -]	[_ - -]	
	L H L H	L H H	
	↘	↘	
L clitic	də-βasa-na βasaw	də-raβa-na raβaw	'that he wash you (pl)'
(-nà 'you (pl.)')	[_ - - -]	[_ - -]	

1.2.3.3. "H L" POLYVERBS

1.2.3.3.1. **Regular tonal properties.** Tonally, this class of verbs poses problems (see §§1.2.3.3.2-3). I suggest the following representation for tone assignment:



That is, (1) if there is a Toneless proclitic, associate the initial H with it and with the verb excluding the last syllable (which has a preassociated H); if there is a proclitic with its own tone, the initial H is orphaned, and the verb up to the last syllable associates with the tone of the proclitic; if there is no proclitic at all, the initial H attaches to the verb stem. (2) Associate a H with the last syllable of the verb stem. (3) Associate the floating L_{\circ} with a Toneless enclitic; if there is no enclitic or if the enclitic has its own tone, the L_{\circ} in the schema here is orphaned:

Toneless proclitics or no proclitics

H H L H °	H H L H °	H H L H °	H H H L H °
a-mar say Pf get Tot	a-təfə say Pf shoot Tot	a-təkən say Pf beat Tot	mən zukutə say I-Pf push Tot

INITIAL H LOWERING

L H H 	L H H 	L H H 	H L H H
a-mar say ¹⁴ [_ _ _]	a-təfə say [_ _ _ _]	a-təkən say [_ _ _ _]	mən ¹⁵ zukutə say [_ _ _ _]
'he got'	'he shot'	'he beat (drum)'	'I pushed'

Toneless proclitics and enclitics

H H L H 	H H L 	H H L H 	H H L
a-mar-tla say Pf get DO Tot	də-mara-za Sjn get DO	a-təfə-fə say Pf shoot DO Tot	ta-səna-ta Hrt night ICP

¹⁴ Say, the Totality marker (actually a composite of *suw* + *ay*—see 7:§2), being a monosyllabic grammatical morpheme, is not subject to HIGH REGISTER SETTING (3:§5).

¹⁵ As pointed out in §1.2.3.2., *mən* is a subject pronoun, not a clitic, and hence it is not a host for the H of the verbal complex, it is not part of the same tonal phrase of the verbal complex, and, being a monosyllabic grammatical morpheme, it is not subject to INITIAL H LOWERING. Note that the first H of the "H L" class tone schema is associated with the verb stem since there is no proclitic. This H then lowers by INITIAL H LOWERING because it is not in the same tonal phrase as the preceding tone.

INITIAL H LOWERING

L H L H 	L H L 	L H L H 	L H L
a-mar-tla say [_ _ _ _]	də-mara-za [_ _ _ _]	a-təfə-fə say [_ _ _ _]	ta-səna ta [_ _ _ _]
'he got her'	'that he get her'	'he shot you (ms)'	'he should spend the night'

L proclitics (no enclitics or Toneless enclitics)

L L (H) H L H 	L L (H) H L 	L L (H) H L H
tə aa-mara mir he IpF get oil	tə aa-'əsuw-sə he IpF sate ICP	fa ta -səna-fə -uw you NEG night ICP NEG

VOWEL ELISION

L H H 	L H L 	L L H H
t-aa-mara mir [_ _ _]	t-aa-'əsuw-sə [_ _ _ _]	fa ta-səna-f-uw ¹⁶ [_ _ _ _]
'he will get oil'	'he will be sated'	'don't spend the night'

H proclitics (no enclitics or Toneless enclitics)

L H (H) H L^* 	L H (H) H L 	H (H) H L H
waa də -təfaw a? who FPf shoot Q	tə də-maraw he FPf get	ta -sənuw-sə -uw NEG night ICP NEG

VOWEL ELISION

L H H 	L H H 	H H H
waa də-təfaw-a? ¹⁷ [_ _ _ _]	tə də-maraw [_ _ _ _]	ta sənuw-s-uw [_ _ _ _]
'who shot?'	'HE got (it)'	'he shouldn't spend the night'

L and Toneless enclitics

Since this verb class associates L_{\circ} with Toneless enclitics, the tonal distinction between Toneless enclitics and L enclitics is neutralized.

¹⁶ The negative marker, *-uw*, being a H monosyllabic grammatical morpheme, is not subject to HIGH REGISTER SETTING.

¹⁷ The question marker, *a*, although it is Toneless and is ultimately cliticized to the word that precedes it, does not serve as a host for the "L" of the "H H L" verbal tone pattern because it is not underlyingly an enclitic to the verb.

L enclitics



a -təfa -ya ...
 Pf shoot IO

INITIAL H LOWERING



a-təfa-ya ...
 [_ _ _]

'he shot ... for him'



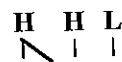
də-mara -tlən ...
 Sjn get DO



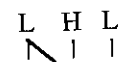
də-mara-tlən ...
 [_ _ _]

'that he get them ...'

Toneless enclitics

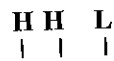


a -təfə -ya ...
 Pf shoot DO

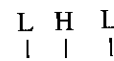


a-təfə-ya ...
 [_ _ _]

'he shot him ...'



a-mar-tlən ...
 Pf get them



a-mar-tlən ...
 [_ _ _]

'he got them'

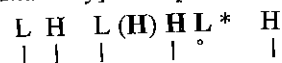
1.2.3.3.2. Tonal inconsistencies and assimilations. In my data for this class of verbs, there are a number of inconsistencies in the transcription of tones, which have caused me consternation in understanding the tonal behavior of the class. However, in examining the data, I have found that the inconsistencies are of three major types:

(1) [_ _ _] for expected [_ _ _]

e.g. [fiy àa-kwiya màa?] for expected [fiy àa-kwiya màa?] 'what will you (ms) catch?'. The underlyingly Toneless proclitic and the initial syllable of the verb should be associated with the initial H of the verb tone pattern, then both lowered to L by INITIAL H LOWERING—cf. expected and attested [t-àa-təfá buwáy] 'he will shoot a francolin'.

(2) [^ _ _] for expected [^ _ _]

e.g. [tə s-áa-mára zhaak-ay] for expected [tə s-áa-mára zhaak-ay] 'he will get a donkey'



from underlying /tə suw aa -mara zhaak-ay/
 he Tot Ipf get donkey Tot

The initial syllable of the verb is associated with the underlying L of the clitic *àa*, but the clitic, in undergoing VOWEL ELISION with *súw*, takes the underlying H of *súw*—cf. expected and attested [tə s-áa-màtsá zhaak-ay] 'he will sell a donkey'.

(3) [^ _ _] or (less commonly) [^ _ _]¹⁸ for expected [^ _ _]

e.g. [tə dš-tsəruw-sə] for expected [tə dš-tsəruw-sə] 'HE stopped'
 [tə dš-mara-yà] for expected [tə dš-mara-yà] 'HE got (it) for him'

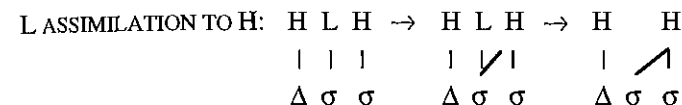
¹⁸The pattern [^ _ _] for [^ _ _] occurs only with indirect object stems plus IO clitics (see example below). "L" MONOVERBS in this environment also unexpectedly but consistently copy a preceding H (see §1.2.3.4). It may, therefore, be the specific morphology which accounts for this tone pattern. However, in other POLYVERB classes, IO stems behave tonally like other verb forms, and even in the "HL" class, I have examples transcribed with the expected tone pattern.

The initial syllable of the verb should associate with the underlying H of the proclitic, and the second syllable of the verb should then be heard as a new H (= downstep) because of its being associated with the H of the verb tone pattern—cf. expected and attested [tə dš-sənuw-sə] 'HE spent the night'.

The fact that I did get examples with the expected tone patterns suggests that the rules and representations that I have proposed are probably correct, inasmuch as they consistently account for the data aside from these few problematic cases. There are two likely explanations: (a) I have mistranscribed some of the examples and/or (b) there are subsidiary tone rules which I have not formulated.

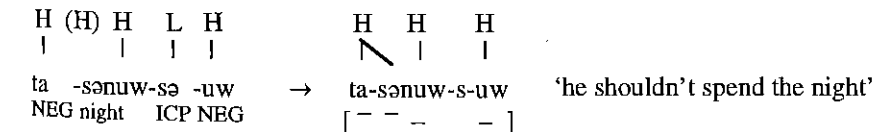
In the case of pattern (1), I suspect that explanation (a) is the correct one. In Hausa, which I know fairly well, I find "L L H" vs. "L H H" on trisyllabic words the hardest tonal distinction to hear and remember. Moreover, I have transcribed the unexpected [_ _ _] pattern far less frequently than the expected [_ _ _] in my Miya data, further suggesting that the unexpected pattern represents hearing lapses.

Patterns (2) and (3) look as if they may be optional assimilations. They have in common that they apply to a tone linked to a domain of only one syllable. In the case of type (2), this may be a fairly general rule which could be formulated as follows, where Δ = tonal domain of any number of syllables, σ = syllable (see §1.2.3.6.3 for another manifestation of this assimilation):



The third step in this derivation may be a general automatic simplification of rising tone to H; Miya has no rising contour tones, and this simplification is fairly common throughout Chadic. Note that there are *no* monomorphemic lexical items with internal rising tonal patterns (3:§2, esp. 2.1). Since one could argue that a verb stem and its associated clitics form a phonological word, type (2) patterns may be accounted for by a rule which has a lexical counterpart in the skewing of tonal patterns of monomorphemic words.

Pattern (3) does not correspond to any lexical skewing; all three tone patterns in (3) exist lexically, though none are common. This seems to be a preferred assimilation of the tone of a medial syllable when three different pitches occur on consecutive syllables. This is supported by the fact that I have consistently transcribed the medial H as downstepped H when the final L is replaced by H through VOWEL ELISION, as in the following (the final H here does not downstep since it is associated with a monosyllabic grammatical morpheme):



1.2.3.3.3. Pluractional "H L" verbs. For the "L" and "H H" classes of POLYVERBS, pluractional verbs (7:§3) follow the same tone pattern as the simple verb stem. Pluractionals for the "HL" class take what I will call a "shifted" tone pattern, i.e. the H L L pattern (see the schema at the beginning of §1.2.3.3.1) is shifted leftward such that

the L always falls on the final $-a$ termination of the verb (all pluractional verbs end in $-a$). If there is a Toneless clitic, the L also associates with it. Compare the following simple stems and their pluractional counterparts. The examples show surface tone patterns after INITIAL H LOWERING, i.e. the boldfaced L at the beginning of the pattern is underlying H:

Simple		Pluractional	
$H(H)HLH$ ° mən fiy say I pierce Tot	‘I pierced’	$H LHLH$ mən ɸyafiya say I pierce-pl Tot	‘I pierced many’
$LHLH$ a -dʰən-wan say Pf tie DO Tot	‘he tied me’	$H LHLH$ mən dʰəna-wan say I tie-pl ICP Tot	‘I girded myself (for dancing)’

In the forms above, the pluractional verb stems have three syllables and hence can accommodate the entire HHL pattern. For pluractional verbs which end up with only two syllables, my data are inconsistent for whether the pattern is “shifted” or remains as it would on the two syllable non-pluractional counterpart (again, the tones here are those following INITIAL H LOWERING, which lowers the first H of the verb pattern):

Simple		Pluractional	
$LHLH$ ° a -tlakə say Pf scrape Tot	‘he scraped’	$LHLH$ a -tlaaka say Pf scrape-pl Tot	‘he scraped repeatedly’
$LHLH$ ° a -vərkə say Pf bear Tot	‘she gave birth’	$LHLH$ ° a -varka say Pf bear-pl Tot	‘she bore (many)’

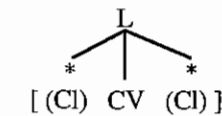
Since it is unlikely that these are transcription errors, I assume that there is variation. This variation would also account for three verbs which appear to be lexicalized pluractionals whose pluractional counterparts are no longer used as far as I could determine, i.e. I was unable to elicit the hypothesized non-pluractional counterparts *ngwurmə, *parə, *tsuwɔdə respectively:

$LHLH$ a-ngwurma say Pf frown Tot	‘he frowned’	$LHLH$ a -paara say Pf cry Tot	‘he cried’
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	$LHLH$ ° a-tsoofa say /tsawɔd/ Tot Pf carve	‘he carved’
--	---	-------------

1.2.3.4. “L” MONOVERBS

1.2.3.4.1. Regular tone patterns. The tone assignment pattern for this class is as follows:



That is, associate L with the verb stem and any Toneless clitics. This is the same tone association schema as for “L” POLYVERBS, and indeed, with Toneless proclitics, the two classes are identical. However, there are differences with proclitics which have their own tones:

Toneless clitics

L də -tsaw Sjn give	$LHLH$ ° a -nja -fə say Pf be-beyond DO Tot	$LHLH$ ° a -na-ta say Pf tire ICP Tot	L ta -tsa -ya Hrt give DO
‘that he give’	‘it’s beyond you’	‘he is tired’	‘he should give him’

Toneless proclitic, L enclitic

$LHLH$ ° a -tsa -na suw mir -ay Pf give IO Tot money Tot	$LHLH$ ° ta -tsa -ya Hrt give IO	$LHLH$ ° də -njaa -tən Sjn be-beyond DO
---	---	--

LOW RAISING

$LHLH$ a-tsa-na suw mir-ay ‘he gave you (pl) money’	$LHLH$ ta-tsa-ya ‘he should give to him’	$LHLH$ də-njaa-tən ‘that he be beyond them’
--	---	--

L proclitic

$LHLH$ fa ta -zaa -fə -uw you NEG enter ICP NEG	$LHLH$ tə aa-nuw-sə he IpF tire ICP	$LHLH$ tə aa-tsa -tla mir he IpF give IO money
--	--	---

VOWEL CONTRACTION & LOW RAISING

L L L H 	L H L 	L H L L
fa ta-zaa-f-uw 'don't enter'	t-aa-nuw-sə 'he will get tired'	t-aa-tsa-tla mir 'he will give her money'

When a proclitic is H or when the tone of a L proclitic is replaced by H after VOWEL ELISION, the verb bears the expected L when it has a DO or ICP clitic:

H proclitic

L H L L L* °	L H L 	H L H
maa də-njaa -tlən a? what FPF beyond DO Q	tə də-nuw-sə he FPF tire ICP	ta -tsuw-sə-uw NEG give DO NEG

VOWEL ELISION & LOW RAISING

L H L HL 	L H L 	H L H
maa də-njaa-tlən-a? 'what is beyond them?'	tə də-nuw-sə 'HE got tired'	ta-tsuw-s-uw 'he should give him away'

L proclitic replaced by H

L H L L H 	L H L L H
tə suw aa-nuw-sə -ay he Tot Ipf tire ICP Tot	tə suw aa-njaa -fə -ay he Tot Ipf beyond DO Tot

VOWEL ELISION

L H L H 	L H L H
tə s-aa-nuw-s-ay 'he will become tired'	tə s-aa-njaa-f-ay 'he is beyond you'

1.2.3.4.2. MONOSYLLABIC "VERB WORD" RAISING. There are two types of cases unaccounted for: cases where the verb is not tonally associated with a proclitic and (1) either has no pronominal enclitic or (2) has an IO clitic. When a verb is not tonally associated with a proclitic and has no pronominal enclitic, the "verb word" (the verb alone or the verb contracted through VOWEL ELISION with some other morpheme) will be monosyllabic. It seems to be a stipulative fact about Miya that a monosyllabic "verb word" takes H tone, which is heard as downstep after a H, but heard as H in the singular imperative (§1.2.3.6):

MONOSYLLABIC "VERB WORD" RAISING: Tone → H / [σ]¹⁹ "Verb word"

L H L * * 	L H L L H 	H L H 	L H L
waa də -tsaa zhaak a? who FPF give donkey Q	tə suw aa-tsaa-ay he Tot Ipf give Tot	ta -tsaa-uw NEG give NEG	tə də -njaw he FPF rebel

VOWEL ELISION, TONE SPREAD, MONOSYLLABIC "VERB WORD" RAISING

L H H 	L H H 	H H 	L H H
waa də-tsa zhaak-a? [- - - -]	tə s-aa-ts-ay ¹⁹ [- - -]	ta-tsa-w ¹⁹ [- -]	tə də-njaw [- - -]
'who gave a donkey?'	'he will give'	'he shouldn't give'	'HE rebelled'

(See §1.2.3.5 for this rule applied to monosyllabic "verb words" for underlying "H" MONOVERBS.)

1.2.3.4.3. "L" MONOVERBS with IO clitics. When a MONOVERB is not tonally associated with a proclitic and has a non-first person IO clitic, the Verb + IO always has the surface tone pattern [H L]. If the proclitic has its own L tone, the [H L] pattern could be accounted for by giving the verb the expected L from the schema in §1.2.3.4.1, then raising it by LOW RAISING (see the example 'he will give her money' above). Following proclitics with their own associated H, we would expect Verb + IO to become [L H], i.e. the verb would retain L but the IO would be raised by LOW RAISING. Instead, however, the verb copies the H of the proclitic and the IO becomes L. I have no non-ad hoc explanation for this, but note that were the Verb + IO clitic to have the expected tones, the verbal complex (Proclitic + Verb + Enclitic) would have the tone pattern [H L H], which seems to be a tone pattern which is avoided within words (see discussion of tonal assimilations in §1.2.3.3.2 and also fn. 18 for tones of "H L" verbs with IO clitics).

L H L L 	L H L L L L H H °	H L L H
tə də -tsa -ya he FPF give IO	tə suw aa-tsa-tla mir -ay he Tot Ipf give IO money Tot	ta -tsa-ya-uw NEG give IO NEG

VOWEL ELISION, etc.

L H(L) L 	L H(L) L L H 	H(L) L
tə də-tsa-ya 'HE gave to him'	tə s-aa-tsa-tla mir-ay 'he will give her money'	ta-tsa-ya-w 'he shouldn't give to him'

First person IO clitics are Toneless (see §1.2.2) and hence are associated with the verb tone. "L" MONOVERB + 1st person IO has downstepped H following a H or raised proclitic. The examples below show surface patterns, with VOWEL ELISION applied:

¹⁹The H tone on the verb does not downstep in 'he will give' and 'he shouldn't give', in contrast with 'who gave a donkey?' and 'HE rebelled'. In the non-downstepped cases, the H of the verb has been replaced by the H of the Totality -ay and negative -uw respectively. These clitics, being monosyllabic grammatical morphemes, bear non-downstepping H.

L H H H H 	L H H H H
tə s -aa tsa -m mir -ay ²⁰ he Tot Ipf give IO money Tot	tə s -aa tsa -ma mir -ay ²⁰ he Tot Ipf give IO money Tot
[_ - - - -]	[_ - - - -]
‘he will give me money’	‘he will give us money’

1.2.3.4.4. Pluractionals of “L” MONOVERBS. Pluractionals of “L” MONOVERBS (7:§3) fall into the class of “L” POLYVERBS (§1.2.3.1):

L H / /		‘he repeatedly entered’ (pluractional of zà ‘enter’)
a -zəza-ya say Pf enter ICP Tot		

1.2.3.5. “H” MONOVERBS. The underlying tonal schema for this class of verbs is as follows:

L H / /	Tone H / /	[Cl CV (Cl)] or [Cl CV (Cl)]
-------------------------	----------------------------	--------------------------------------

That is, if the verb has a Toneless proclitic, associate L with it and the verb root; if the verb has a proclitic with its own tone, then associate that tone with the verb, replacing the L of the “default” schema. Give Toneless enclitics H tone in either case. Unlike other verb classes, the verb stem in this class has no tone of its own—the “H” class designation derives from the otherwise unexplained H which the verb contributes to Toneless enclitics. It also appears that the H associates with the verb root under certain circumstances when there are no clitics—see the end of this section. The condition associating L with a Toneless proclitic is undesirable, but it is needed to assure that Toneless proclitics will have L rather than H, which phrase initial Toneless domains would take as the default tone (see §1.2.1).

Toneless clitics

L H H / /	L H / /	L H / /	L H H / /
a -kwaa say Pf lack Tot	də -kwaw Sjn lack	ta -kwa-ya Hrt lack him	a -tla -ta say Pf stand ICP Tot
‘he lacked’	‘that he lack’	‘he should lack him’	‘he stood up’

²⁰Although the sentence final Totality marker, -ay, is associated with a separate H tone, it does not downstep because it is a monosyllabic grammatical morpheme.

L proclitics

L L H H / /	L L H H / /	L H L H L L H
fa ta -kuw-sə -uw you NEG lack DO NEG	fa ta -tla -fə -uw you NEG stand ICP NEG	tən suw aa-tlaa -tən -ay they Tot Ipf stand ICP Tot
VOWEL ELISION, LOW RAISING, etc.		

L L H / /	L L H / /	L H L H L
fa ta-kuw-s-uw ‘don’t lack him’	fa ta-tla-f-uw ‘don’t stand up’	tən s-aa-tlaa-tən-ay ‘they will stand up’

H proclitics

L H H / /	H H H / /	L H H / /
tə də-kuw-sə he FPF lack DO	ta -tluw-sə -uw NEG stand ICP NEG	tə də -buw-sə he FPF go ICP
VOWEL ELISION		

L H H / /	H H / /	L H H / /
tə də-kuw-sə [_ - - -] ‘HE lacked him’	ta-tluw-s-uw [- - -] ‘he shouldn’t stand up’	tə də-buw-sə [_ - - -] ‘HE went’

“L” MONOVERBS with a H or L proclitic and no pronominal enclitics or IO clitics pose certain tonal problems which I handle by a rule of MONOSYLLABIC “VERB WORD” RAISING (§1.2.3.4.2). “H” MONOVERBS in this class of environments are subject to the same rule, resulting in neutralization of the two verbal tone classes in this set of environments.²¹ Consider the examples below. The first line shows the underlying tones. The L_v H_v verbal pattern is shown as unassociated inasmuch as both tones are floating and neither appears in the surface pattern.

L H L H / /	L L L H H 	H L H H / /	L H L L H H
tə də-kwaw he FPF lack	fa ta kwa -uw you(m) NEG lack-NEG	ta -kwaa-uw NEG laek NEG	tə suw aa-kwaa-ay he Tot Ipf lack Tot

²¹“H” MONOVERBS in the class of environments in question have a couple of alternative accounts. One would be to associate both the L_v and H_v floating tones of the verbal pattern with the verb root, resulting in a rising tone. The rise would become surface (downstepped) H. Another alternative would be for the H_v to dock on the verb, preempting this as a docking site for the L_v. The proclitic, already having its own tone, could not serve as a docking site for the L_v, causing it to be orphaned.

VOWEL ELISION, DEFAULT H RAISING

L H H 	L L H 	H H 	L H H
tə də-kwaw [- - -]	fa ta kwa-w [- - -]	ta-kwa-w [- -]	tə s-aa-kwa-y [- - -]
'HE lacked'	'you shouldn't lack'	'he shouldn't lack'	'he will lack'

"L" MONOVERBS also require special treatment when they have IO clitics (§1.2.3.4.3). I have no data on "H" MONOVERBS with IO clitics. The only transitive "H" MONOVERB that I found was *kwa* 'lack'. Vaziya could make no sense of this verb with indirect objects, making it impossible to elicit data to check tonal behavior of the construction in question.

I failed to collect any pluractional verbs from "H" MONOVERB class parallel to that for "L" MONOVERBS (§1.2.3.4.4).

1.2.3.6. Imperative tones

1.2.3.6.1. Singular Imperatives. Singular Imperative tones can be accounted for with the underlying tonal representations and rules described in §§1.2.3.1-5 with the exception of the "HL" POLYVERB class. The table below gives the surface tone patterns for all classes. L as the initial tone of the "HH" class results from INITIAL H LOWERING; H on the underlyingly L IO clitics results from LOW RAISING; H on the "no clitic" forms of the MONOVERBS results from the rule of MONOSYLLABIC "VERB WORD" RAISING (§1.2.3.4.2).²² See the respective sections for each class and §1.2.1 for details:

	No clitic		DO clitic (Toneless) '... him!'	IO clitic (L) '... for him!'
"L" POLYVERB:	L ↘ bəṣə	'wash (it)!'	L ↘ bəṣə-ya	L H ↘ basa-ya
"H H" POLYVERB:	L ↘ raḃə	'moisten (it)!'	L H ↘ raḃə-ya	L H ↘ raḃa-ya
"H L" POLYVERB:	H mar	'get (it)!'	H L mar-ya	H L ↘ mara-ya ²³

²²The rule as formulated in §1.2.3.4.2 makes one wrong prediction, viz. singular Imperatives which have the segmental shape CVC in the "L" and "H H" POLYVERB classes. These verbs have surface L tone in the Imperative: ("L") *zār* 'call!', ("H H") *ḃəl* 'chop!'. The rule is needed mainly to account for MONOVERBS, so it might be best to state it so as to apply only to CV verbs, with a separate process to account for the H on Imperatives of HL POLYVERBS. Since the facts associated with this rule seem to fall outside the regular tonal processes of Miya, I leave these issues unresolved.

²³I have "adjusted" the data a bit here. When I collected the forms for this particular verb, I transcribed the tone pattern [- - -]. However, I am quite sure this is a transcription error, since forms I transcribed at

	H L 		H L ↘		H L ↘		H L ↘		H L ↘
	təfə	'shoot (it)!'	təfə-ya		təfa-ya ²³				
"L" MONOVERB:	H 		L ↘		H L 				
	tṣa	'give (it)!'	tṣa-ya		tṣa-ya				
"H" MONOVERB:	H 		(?)L ↘		H L 		H L 		?
	kwa-y lack -Tot	'lack (it)!'	kwa-ya	cf.	tla -ku arise ICP		(see §1.2.3.5, end, on <i>kwa</i> with IO)		

The tonal schema for the "HL" POLYVERB class as presented and applied in §1.2.3.3.1 will not account for the Imperative tones seen here. However, let us think of the "HL" pattern as a *surface* tonal pattern which characterizes this class. This "HL" pattern is found in nearly every form of this class which has an enclitic, and it also is the pattern found on the verb stem itself in pluractionals (§1.2.3.3.3). In this sense, Imperatives fit the class perfectly: every singular Imperative form of two or more syllables, with or without enclitics, has the pattern [HL]. If the form has more than two syllables, the domain of the H is everything up to the last syllable.

The schema for "H" MONOVERBS in §1.2.3.5 also fails to correctly account for singular Imperatives of this class. The form 'lack him!' is the only singular imperative transitive form with an enclitic in my data, and the L tone could be an error. The HL pattern on the form with the ICP, *tlá-kù* 'arise!' (ms), is more consistent with other data. The "H" MONOVERB class shares certain characteristics with the "HL" POLYVERB class. A description for Imperatives for this class may thus be something along the lines of that in the preceding paragraph, where the surface HL pattern is a surface target overriding the more general rules.

"L" MONOVERB singular Imperatives are accounted for except for forms with an IO clitic. This configuration also has an unexpected [HL] pattern in other TAM's (see §1.2.3.4.3), so I assume the explanation for the pattern is the same for all the TAM's.

1.2.3.6.2. Plural Imperatives. Plural Imperatives add a suffix *-iy*. This suffix has unique tonal properties, summarized as the three-part rule below. The falling (F) contour [↘] in environment (a) is unique to this morpheme, i.e. there are no other morphemes in Miya which consistently bear a contour tone in any environment.

a later date in other persons have the pattern [- - -], and this pattern jibes with this class of verbs using IO clitics elsewhere.

T -iy [Pl. Imp.]	(a) → [ʔ] / H__	opt. → L / __ pause	<i>táf-íy</i> = <i>táf-iy</i> 'shoot (it)!'
		opt. → H / __ L (= downstepped H)	<i>táf-íy-tlà</i> = <i>táf-iy-tlà</i> 'shoot her!'
	(b) → H / L__##	(## = word boundary)	<i>bàt-íy</i> 'untie (it)!'
	(c) → * / L__# Cl	(* = Toneless, i.e. associates with L to the left; # = clitic boundary)	<i>bàt-iy-tlá</i> 'untie her!'

In environments (a) and (b), the environments where the plural Imperative suffix has an independent tone, the suffix also has the effect of changing the tone in the following domain to L. I account for this by a floating L_f following the suffix. See §1.2.3.8 below and 3:§4 for discussion and examples.

I have found no underlying tonal configuration which will account for these facts using only known tone rules. Two possibilities suggest themselves:

(1) *The plural Imperative suffix -iy bears underlying L*: Environment (a) is found only with HL verbs. I have assigned these verbs a HHL $_f$ underlying tone pattern (§1.2.3.3), with the second H associated with the last syllable of the verb root and the floating L_f replacing the tone of any following domain. In the case of plural Imperative, the H of the verb would be assigned to the syllable containing -iy, and the L of -iy would remain on the same syllable, preempting the floating L_f of the verb. H-L on this syllable would be realized as phonetic F. The non-contour options in (a) can be accounted for by tonal assimilations to the left or right (see §1.2.3.3.2 for other apparent assimilations of this type). In environment (b), the underlying L on -iy is raised by LOW RAISING after the preceding L. In environment (c), where the verb root tone is the same as in environment (b), but where the "verb word" is extended by addition of a clitic, the L on -iy is absorbed into the L of the verb root. Absorption of the suffix L is necessary so that it not be a separate L. If it were, it would be raised by LOW RAISING as in the case of environment (b).

(2) *The plural Imperative suffix -iy bears underlying H*: In environment (a), this H is heard as the initial part of the F. As noted following the rule, the -iy suffix is accompanied by a floating L_f . This L_f is associated both with the Imperative suffix and the following domain, providing H-L on one syllable. H on the suffix takes care of environment (b) straightforwardly. In environment (c) the H of the suffix is replaced by association to the L of the verb root. This is necessary for the same reason as noted at the end of proposal (1).

Both these proposals require ad hoc devices unique to this morpheme. I tend to prefer the latter since it is closer to the surface facts in environments (a) and (b). In the table below, only the derived tone patterns are given. The floating L_f associated with -iy is represented with a slanting association line followed by an unassociated tone. The forms below show surface tonal patterns. The L of the IO clitic becomes H after L by LOW RAISING:

	No clitic		DO clitic (Toneless) '... him!'	IO clitic (L) '... for him!'
	L H 		L /	L H /
"L" POLYVERB:	bàs-iy	'wash (it)!'	bàs-iy-ya	bàs-iy-ya
	L H 		L H /	L H /
"H H" POLYVERB:	raß-iy	'moisten (it)!'	raß-iy-ya	raß-iy-ya
	H F 		H F L 	H F L
"H L" POLYVERB:	mar-iy	'get (it)!'	mar-iy-ya	mar-iy-ya
	[ʔ]		[ʔ _]	[ʔ _]
	H 		L /	H L
"L" MONOVERB:	ts-iy	'give (it)!'	ts-iy-ya	ts-iy-ya
	H L H \		H L 	?
"H" MONOVERB:	kw-iy -ay	'lack (it)!'	kw-iy-ya	(see §1.2.3.5, end, on <i>kwa</i> with IO)
	lack-Imp-Tot			

1.2.3.6.3. *First person plural Imperatives*. The first person plural Imperative, translatable as 'let's ...!', is composed of the plural Imperative suffix -iy + -má. The tonal behavior of -iy is as described for plural Imperative in the previous section, except that it does not impose floating L_f on the following tonal domain—*má* always bears H. A following clitic bears L, which could be accounted for by floating L_f , although this L_f is associated only with a pronominal clitic, not all following domains as is the floating L_f of -iy—cf. *nj-íy-ày* 'refuse (pl)!' (with L on Totality clitic -ay) vs. *nj-íy-m-áy* 'let's refuse!' (with H on the Totality) and *zàr-íy zhàakə* [_ _ _] 'call (pl) a donkey!' (with L on the Toneless *zhaakə* 'donkey') vs. *zàr-iy-má zhaakə* [_ _ _ _] 'let's call a donkey!' (with the H domain of -ma- spread to *zhaakə*). The tone of -iy shows variation after H similar to that seen with the plural Imperative. I found the following variants with verbs that have H on the root. I assume that the variant with F [ʔ] gives the best evidence for the underlying tones, with the other variants being simplifications of various kinds.

már-iy-má [ʔ _ _] = *már-iy-ma* [_ _ _] = *már-iy-ma* [_ _ _]²⁴ 'let's get (it)!'
már-iy-ma-yà [_ _ _ _] = *már-iy-má-yà* [_ _ _ _] 'let's get him; let's get (it) for him!'

²⁴This third variant should probably be transcribed *már-iy-má* with /H/ on the last syllable. As in many Chadic languages, the sequence LH before pause tends to be realized [_ _] (L + level) whereas LL tends to be realized L_lL [_ _] (L + lower). Evidence in favor of this interpretation is seen in the transcription *már-iy-má-yà* just below, where H -má- is not utterance final. In several tokens of this and morphologically similar utterances, I never transcribed -ma- with L.

	No clitic		DO clitic (Toneless) '... him!'		IO clitic (L) '... for him!'
	L H / \		L H L / \ /		L H L / \ /
"L" POLYVERB:	bəs-iy-ma	'let's wash (it)!	bəs-iy-ma-ya		bəs-iy-ma-ya
	L H / \		L H L / \ /		L H L / \ /
"H H" POLYVERB:	raβ-iy-ma	'let's moisten (it)!	raβ-iy-ma-ya		raβ-iy-ma-ya
	H H / \		H H L / \ /		H H L / \ /
"H L" POLYVERB:	mar-iy-ma	'let's get (it)!	mar-iy-ma-ya		mar-iy-ma-ya
	(see above for tonal variants with verbs bearing H on the root)				
	H H / \		H H L / \ /		H H L / \ /
"L" MONOVERB:	ts-iy-ma	'let's give (it)!	ts-iy-ma-ya		ts-iy-ma-ya
	H H / \		H H L / \ /		?
"H" MONOVERB:	kw-iy-ma-y lack-pl- 1p-Tot	'let's lack (it)!	kw-iy-ma-ya		(see §1.2.3.5, end, on <i>kwa</i> with IO)

The first person plural Imperative has two other features of interest: First, though the suffix *-má* is segmentally identical to the first person plural ICP (§4.1), the Imperative suffix preempts the ICP. This is evident in the "L" and "H L" POLYVERB classes where, in both cases, the ICP bears L but the Imperative *-má* bears H:²⁵

	ICP (2nd plural Imperative)		1st plural Imperative	
"L" POLYVERB:	bàw-iy-ka	'go out!'	bàw-iy-má	'let's go out!'
"H L" POLYVERB:	's-s-íy-kà	'get sated!'	's-s-íy-ma	'let's get sated!'

Second, the first person plural Imperative suffix, though segmentally identical to the DO and the IO clitics, is tonally distinct from them. The first person IO always copies the preceding tone (§1.2.2), and the DO clitic (in verbal TAM's) is assigned tone by the verb class schemata:

²⁵Alternatively, one could say that the first person plural Imperative ICP bears H. I prefer the analysis of preemption since the tone of *-má* on intransitive verbs is the same as on transitive verbs, where, by definition, this clitic cannot be an ICP.

	Pl Imperative + 1 plural obj.	1st plural Imperative
"L" POLYVERB:	zàr-iy-ma vórka [_ _ _ _]	zàr-iy-má mófə [_ _ _ _]
	'call the boy for us!' (IO clitic)	'let's call a goat!'
"H L" POLYVERB:	már-íy-mà [- - _]	már-íy-ma [- - _]
	'get us!' (DO clitic)	'let's get (it)!'

1.2.3.7. Tonal patterns in non-native verbs. Most, if not all, Miya speakers are fluent Hausa speakers and readily borrow words from Hausa. When they borrow verbs, they generally retain the tone pattern and final vowel that the Hausa verb has in its finite form. This borrowed stem then takes normal Miya clitics and affixes.

H-L ... verbs in Hausa: Hausa has two major classes of 2-syllable verbs with a H L tone pattern: "Grade I" verbs end in *-aa* and "Grade IV" verbs end in *-ee* (see Parsons (1960) for the Hausa verbal "Grade" system). Miya generally retains the H L tone pattern and the final vowel, but it adapts the verbs in the following ways: (1) the final vowel of Grade I verbs is always short *-a* and the *-ee* of Grade IV verbs is treated as underlying */-ay/* (§2.2.3); (2) 3-syllable verbs take the tone pattern H-L-L, whereas they would be H-L-H in Hausa in most environments. These vowel terminations and tone patterns have counterparts in native Miya classes but not combined as they are in borrowings. The H-L pattern and final *-a* is found with some pluractional "H L" class verbs (§1.2.3.4.3). Native verbs of this type would also require an internal *-a-* (or *-aa-* if the non-pluractional stem had internal short *-a-*), but there is no such requirement on Hausa borrowings. Miya has a verbal suffix */-ay/*, used semiproduktively to transitize intransitive verbs (§4.1.1) and also lexicalized on a number of stems where no intransitive counterpart exists. However, no native Miya verb with the suffix */-ay/* has a H-L pattern on the verb stem. Following are some examples of verbs borrowed from Hausa in Miya sentences:

From Hausa Grade I verbs

món saakà sáy (< H. *sáakàa*)
I weave Tot
'I wove'

à-réenà-wan sáy (< H. *réenàa*)
Pf belittle DO Tot
'he belittled me'

m -áa -faarà -tlán-à? (< H. *fáaràa*)²⁶
what FPF happen ICP Q
'what happened?'

From Hausa Grade IV verbs

món waarày súw 'àfuw tuwn-áy (< H. *wáarèe*)
I separate Tot goat my Tot
'I separated out my goat (from a herd)'

à-kwáacày-an s -áawíhi tuwn-ay (< H. *kwáacèe*)
Pf wrest IO Tot load my Tot
'he wrested my load from me'

món goodèe súw (< H. *gódèe*)
I thank Tot
'I am thankful, thank you'

²⁶In Hausa, the verb 'happen' is *fàarú*, a derived intransitive from the Grade I *fáaràa* 'begin'. Miya also uses the latter (*món faarà sáy* 'I began (it)'). Miya speakers seem to have recognized the derivational relation between these forms in Hausa and have "undone" it, taking the Grade I as the base form and using their native method of "intransitivization", viz. addition of the ICP.

à-kúnnà sáy (< H. kúnnàa)
 Pf light Tot
 'he lit (a fire)'

món lankwàsa suw zà'-áy (< H. lánkwàsáa)
 I bend Tot bow-Tot
 'I bent the bow'

The Hausa verb *ráatàydá* 'hang' has been apocopated and treated as the Grade IV verbs above, e.g. *à-ráatàydá kábà tuwsà* 'he hung up his gown'.

I found a few borrowed Grade I or Grade IV verbs which may have become "nativized", or are moving toward nativization, in ways that the verbs above have not. The verbs *kunsà* 'wrap up' (< H. kúnsàa), *cúwrà* 'knead' (< H. cúuràa), *tuwrà* 'push' (< H. túuràa) have final -à, and the latter two were given with initial L in context, e.g. *món cúwrà say* 'I kneaded (it)', *món tuwrà sáy* 'I pushed (it)' (but cf. *á kunsà súw gòròw-ày* 'he packaged kolas', with the tone pattern seen in other borrowed words).

L-H ... verbs in Hausa: In Hausa, verbs categorized as "Grade II" have a L-H pattern, e.g. *sàydá* 'buy'. Of the 25-30 Hausa loan verbs in my materials, only two have a Grade II source in Hausa. This may be because many Grade II verbs in Hausa express basic concepts, where Miya uses native items, e.g. 'buy', 'look for', 'release', 'shoot', 'pick up', 'get', 'accept', etc. The two borrowed Grade II's in my Miya data have been treated as if they were Grade IV in Hausa, i.e. they have a H-L tone pattern and final -ee:

món gaajèè ghàràfòo dzàhà nuwun 'I inherited from my father' (< H. gaaada;a)
 I inherit old person male my

món gaajèè-ya súw 'I inherited from him'

dà támbayèè-tla nj-áaliùw wéenà 'they ask her which one she loves' (< H. tàmbayàa)
 Sjn ask-her she-loves which one

These verbs have been borrowed with final -ee, which is the vowel termination required in Hausa on Grade II verbs only before pronominal objects (cf. Hausa *wàa ká gàadàa?* 'who (*wàa*) did you inherit from?' vs. *náa gajèè shì* 'I inherited from him'—*dl* → *j* in Hausa before front vowels). The H-L tone pattern on the verbs is probably on analogy with borrowed Grade IV verbs, which end in -e(e) in all environments in Hausa. The H-L tone pattern cannot have been imposed because of some morphotactic requirement in Miya, since native Miya verbs with a surface L-H pattern are common, viz. verbs of the "H H" tone class in most environments.

Verbal nouns of borrowed verbs: Verbal nouns of borrowed verbs always have the form of a gerund with the suffix -akà (§2.2.1). Gerunds of borrowed verbs always begin with H and, for most of my examples, drop to L on the second syllable. This is not a pattern found with any native gerunds (see §2.2.1 for the native patterns). All the borrowed Grade IV verbs and those treated as if they were Grade IV (*ráatàydá* 'hang' < H. *ráatàydáa* and the two Grade II's mentioned just above) have a tone pattern H-L...H. The most common pattern for gerunds of other borrowed verbs is H-L. Final H on gerunds of "Grade IV" origin may be on analogy with gerunds of verbs bearing the transitizing suffix -ay (7:§4.1.1, esp. fn. 10). It turns out that most of these verbs have the surface tone

pattern ...L-H on the gerund suffix -akà. I have recorded a couple of examples each of gerunds of borrowed verbs with tone patterns H-H and H-L-H. These may be mistranscriptions or may represent variation in tone on borrowed verbs.

"Grade IV" borrowed verb gerunds

wáaràyakó 'separate out' (< H. wáarèe)
 rúwǎayakó 'confuse' (< H. rúwǎdèe)
 ráatàyakó 'hang' (< H. ráatàydáa)
 gáajàyakó 'inherit' (< H. gáadàa)

Other borrowed verbs

fáaràkə 'begin; happen' (< H. fáaràa)
 kúnnàkə 'light (fire)' (< H. kúnnàa)
 kúnsàkə 'package' (< H. kúnsàa)
 túwràkə 'push' (< H. túuràa)
 sáabàkə 'be fond' (< H. sáabàa)
 réenàkə 'belittle' (< H. réenàa)

1.2.3.8. Tonal effects of verbs on following noun phrases. Verbs form a *tonal phrase* with following nominal objects, direct or indirect (3:§6.2). In most cases this phrasing is evident by the application of the regular tone rules (§1.2.1) across the boundary between verb and object. In certain strictly defined cases, however, objects following verbs always have L. Below are the main V + Object situations. See 3:§6.2 for more details and exemplification of phrasing within verb phrases and 3:§4 for discussion of all words and word classes which impose L on a following domain.

1.2.3.8.1. Verbs with objects. Each verb class is illustrated with the singular imperative (a verbal TAM) and the Focused Subject Perfective (a nominal TAM). Examples show surface tones, after incorporation of Toneless objects into the tonal domain of the verb and application of L RAISING:

	Toneless DO zhaakə 'donkey' wəhə 'sand'	L DO mbərgu 'ram'	H DO mǎdǎ 'goat' kábə 'gown'
"L" POLYVERB			
Sg. Imperative	L / \	L H L 	L H \
'call ...!'	zar zhaakə	zar mbərgu	zar mǎdǎ
Focus subj. perf.	L H L / \	L H L H L \	L H L H \ \
'HE called ...'	tə də-zara zhaakə	tə də-zara mbərgu	tə də-zara mǎdǎ
"H H" POLYVERB			
Sg. Imperative	L / \	(no example collected)	L H \ \
'soak ...!'	rafə wəhə	(no example collected)	rafə kabə
Focus subj. perf.	L H H / \	(no example collected)	L H H H \ \
'HE soaked ...'	tə də-rafə wəhə	(no example collected)	tə də-rafə kabə

"H L" POLYVERB

Sg. Imperative	$\begin{array}{c} H & L \\ & \diagdown \end{array}$	$\begin{array}{c} H & L \\ & \diagdown \end{array}$	$\begin{array}{c} H & L \\ & \diagdown \end{array}$
'get ...!'	mar zhaakə	mar mbərgu	mar məḏə
Focus subj. perf.	$\begin{array}{c} L & H & H \\ & \diagdown & \diagdown \end{array}$	$\begin{array}{c} L & H & H & L \\ & \diagdown & & \diagdown \end{array}$	$\begin{array}{c} L & H & H & H \\ & \diagdown & & \diagdown \end{array}$
'HE got ...'	tə də-mara zhaakə	tə də-mara mbərgu	tə də-mara məḏə

"L" MONOVERB

Sg. Imperative	$\begin{array}{c} H \\ \diagdown \end{array}$	$\begin{array}{c} H & L \\ & \diagdown \end{array}$	$\begin{array}{c} H & H \\ & \diagdown \end{array}$
'give ...!'	tsaa zhaakə	tsaa mbərgu	tsaa məḏə
Focus subj. perf.	$\begin{array}{c} L & H & H \\ & & \diagdown \end{array}$	$\begin{array}{c} L & H & H & L \\ & & & \diagdown \end{array}$	$\begin{array}{c} L & H & H & H \\ & & & \diagdown \end{array}$
'HE gave ...'	tə də-tsaa zhaakə	tə də-tsaa mbərgu	tə də-tsaa məḏə

"H" MONOVERB The only known transitive root is *kwá* 'lack'. No examples of noun objects with the simple verb were collected.

With most verb classes, the tones on direct objects are the tones which would be predicted within tonal phrases: *Toneless* domains are associated to the tone of the preceding domain; *L* is *L* after *H*, and after *L*, the first syllable of a *L* domain is raised by *LOW RAISING*; *H* is *H* after *L* and downstepped *H* after *H*. The only exception is following "H L" POLYVERBS in verbal TAM's represented in the table above by the Sg. Imperative): in this environment, the following tone is replaced by *L*, a feature shared by a number of other morphemes, including the plural Imperative ending (see §1.2.3.6.2) and IO clitics (see below and 3:§4). One possible explanation would be that the *L* of the lexical tonal schema for this class (§1.2.3.3.1) is transferred to following nominal objects. This solution is not satisfactory for at least two reasons: (i) the *L* of the schema is associated with clitics in both nominal and verbal TAM's, but *L* replacement on nominal objects takes place only in verbal TAM's; (ii) the "H H" POLYVERB class also has a tone (*H* in this case) which attaches to clitics (§1.2.3.2), but this *H* disappears when there is no clitic. In light of these facts, I propose that "H L" POLYVERBS in verbal TAM's have a floating *L* tone.

1.2.3.8.2. IO clitics followed by objects. IO clitics other than first person (singular and plural) have underlying *L* and also have the effect of replacing the following tone by *L*. Note the difference in the tones of the nominal objects (both underlying *H*) following the IO *-tla* 'to her', which has underlying *L* and replaces the following tone by *L* (marked by *L* with diagonal association line), as opposed to the IO *-ma*, which is *Toneless* and does not replace a following tone. The difference is marked by floating *L* after the clitics which impose *L*:

$\begin{array}{c} L & L & L & H \\ & & & \diagdown \end{array}$	$\begin{array}{c} L & L & H \\ & & \diagdown \end{array}$	LOW RAISING REPLACEMENT BY L	$\begin{array}{c} L & H & L \\ & & \diagdown \end{array}$	basa-tla kabə	basa-tla kabə	'wash the gown for her!'
$\begin{array}{c} L & H \\ & \diagdown \end{array}$	$\begin{array}{c} H \\ \diagdown \end{array}$			basa-ma kabə		'wash the gown for us!'
$\begin{array}{c} H & L & L & H \\ & & & \diagdown \end{array}$	$\begin{array}{c} H & L & L \\ & & \diagdown \end{array}$	DEFAULT H REPLACEMENT BY L	$\begin{array}{c} H & L & L \\ & & \diagdown \end{array}$	mara-tla mir ²⁷	mara-tla mir	'get money for her!'
$\begin{array}{c} H & H & H \\ & \diagdown & \end{array}$	$\begin{array}{c} H & H & H \\ & \diagdown & \end{array}$	DEFAULT H	$\begin{array}{c} H & H & H \\ & \diagdown & \end{array}$	mara-ma mir	mara-ma mir	'get money for us!'

DO and ICP clitics cannot co-occur with nominal DO's for obvious reasons, and a DO pronoun cannot be cliticized to the indirect object stem, which is required when any IO, nominal or pronominal, is present (§1.1.2).

1.2.3.8.3. Plural Imperative followed by objects. Verbs ending in the plural Imperative suffix *-ly* (§1.2.3.6.2) replace the tone of the following domain by *L*. Compare the tones of objects after the 2nd plural Imperative and the 1st plural Imperative, where the verb-final clitics are *H* in both cases:

	2nd plural Imperative	1st plural Imperative
"L" POLY-V	zàriy zhàakə 'call a donkey! zàriy məḏə 'call a goat!'	zàriymá zhaakə 'let's call a donkey!' zàriymá məḏə 'let's call a goat!'
"H L" POLY-V	máriy zhàakə 'get a donkey!' máriy məḏə 'get a goat!'	máriyma zhaakə 'let's get a donkey!' máriyma məḏə 'let's get a goat!'
"L" MONO-V	tsíy zhàakə 'give a donkey!' tsíy məḏə 'give a goat!'	tsíymá zhaakə 'let's give a donkey!' tsíymá məḏə 'let's give a goat!'

2. Verbal Nouns

There are three kinds of verbal nouns: *participles*, *gerunds*, and *deverbal nouns*. Every verb has a corresponding participle and gerund, whose forms can be predicted on the basis of lexical verb class. Not every verb has a deverbal noun, nor does verb class correlate with deverbal noun form. For verbs without real deverbal nouns, the gerund is the default deverbal noun. Predictability in form correlates with differences in function.

²⁷The tones on the verb stem of "H L" POLYVERB's with IO clitics is problematic, as pointed out in §1.2.3.3.1. Of interest here is the *L* on the IO clitic following *H* on the verb. Note that *LOW RAISING* does not apply to raise the replacing *L* on *mir* 'money', even though the environment is met. Tentatively, we can account for this by ordering *L* REPLACEMENT after *LOW RAISING*. It turns out that IO clitics in this verbal tone class and "L" MONOVERB's (*tsá-tlà mir* 'give her money!') are the only items with the *L* replacement property which themselves have surface *L*.

Functions can be arranged along a scale of canonical verb function as the verb in a finite clause to canonical noun function which, in schoolbook grammar terms, “names a person, place, or thing”.

VERB-LIKE (Finite V's) → Participles → Gerunds → Deverbal N's → NOUN-LIKE (Concrete N's)

Participles serve as the verb form in “nominal” TAM's (5:§2.2) and as cognate complements (7:§5.1); *gerunds* are used in nominalized verbal constructions, including absolutive, purposive, and verb complement phrases; *deverbal nouns* often have a resultative or concrete meaning. See respective sections below for examples of use.

2.1. Participles

2.1.1. Participle form. Participles are always part of some verbal construction and hence have no citation form per se. They all terminate in *-a(w)*, thus neutralizing the lexical verb termination classes (§1.1.1). The parenthesized (*w*) appears only before pause. Lexical verb class determines tone (§1.2.3). The paradigm below contrasts the finite verb with the prepausal form of the participle:

	Hortative (Finite verb)	Subjunctive (Participle)	
“L” MONOVERB:	tà tsa	də tsaw	‘give’
“H” MONOVERB:	tà kwa	də kwaw	‘refuse’
“L” POLY-V	<i>-a</i> class: tà təkā	də təkaw	‘accompany’
	∅ class: tà zar	də zaraw	‘call’
“H H” POLY-V	<i>-a</i> class: tà bəta	də bətaw	‘untie’
	∅ class: tà ɸal	də ɸalaw	‘chop’
“H L” POLY-V	<i>-a</i> class: ²⁸ tà səná-tà	də sənúw-sə	‘spend the night’
	∅ class: tà már	də maráw	‘get’

The rules that govern tonal behavior of finite verbs also govern participles (see the respective sections for each class in §1.2.3.1-5). Participles differ from finite verbs not only in termination, but also in the forms of DO and ICP clitics. In both functions, participles take clitics which are identical to each other and to genitive clitics (10:§3.1.1). Finite verbs differentiate these functions, using pronoun paradigms unique to each function (5:§4).

2.1.2. Participle function. To call participles a type of verbal *noun* may not seem entirely justified. Unlike “real” nouns, participles have no isolated citation form, and more important, they do not display the archetypal nominal feature of gender, i.e. they do not appear in any constructions where gender agreement plays a role, such as demonstrative or adjective agreement. Nonetheless, they do have some noun-like properties. First, as mentioned in the paragraph immediately above, pronominal clitics to participles are identical

²⁸The only “HL” *-a* verbs which I found are two intransitive verbs, which require an ICP clitic in all forms.

to genitive clitics used with nouns. Second, participles appear in certain syntactic environments where finite verbs cannot appear and where concrete nouns do appear (environments b-d below). Participles function in the following ways:

(a) **Main verb** in “nominal” TAM's (5:§2.2).

(b) **Cognate complements** (7:§5): Any verb in any TAM may appear with a cognate complement, which seems to place focus on the action indicated by the verb. The cognate complement is a participle regardless of the TAM.²⁹ See 7:§5 for more examples and discussion:

à 'icá 'icàw	‘he sneezed’ (“he sneezed <i>sneezing</i> ”)
t-àatáa z-ùwsə záw	‘he is entering’ (“he is entering-ICP <i>entering</i> ”)
zàr-ya zaráw	‘call him!’ (“call-him <i>calling</i> ”)

(c) **Attributive statives** (10:§5.1.3):³⁰ To modify a noun as having the attribute of being in the state implied by a verb, one uses a phrase consisting of one of the words *ba* (m), *ma* (f), *səba* (pl) ‘one who has/does ...’ plus a participle. Formally, these phrases resemble subject relatives, but if the verb in the stative phrase is transitive, as in the first example below, the antecedent noun is interpreted as the *object* of the action. If a verb is intransitive, it requires the ICP:

mbərgu bá pəráw	‘a slaughtered ram’ (“ram <i>ba</i> slaughtered”)
'ám má tsəga-za	‘seated woman’ (“woman <i>ma</i> seated-ICP”)

In the attributive stative construction, deverbal nouns, where they exist, can replace participles, e.g. 'ám má tsəgə ‘seated woman’ as an alternative to the second phrase above.

(d) **Verb complements and purpose phrases** (13:§§2-3, 14:§9): In nominalized complements to verbs and nominalized phrases of purpose, the participle is sometimes an alternative to a gerund or deverbal noun. In my examples, the participle always has either a clitic (ICP, DO, or IO) or a nominal object, suggesting that a participle alone cannot form a nominal phrase as can a gerund or deverbal noun. However, participles and gerunds/deverbal nouns are not in syntactic complementary distribution: although participles apparently cannot appear alone in nominalizations, gerunds and deverbal nouns can have clitics or nominal objects (see esp. 13:§2). The following examples show participles with ICP, IO clitic, and nominal DO respectively:

à 'iy gan tlaa-zá	‘she can get up’
mən g-aa mənā d'əngā-yá	‘I will tell him again’ (“I will repeat <i>telling him</i> ”)
à boo-ta áadāma doona vórka nuwsə	‘he went out in order to look for his son’

²⁹As mentioned in fn. 11, participles functioning as cognate complements have one tonal peculiarity, viz. “L” tone class verbs have an unexplained H on their final syllable (compare ‘entering’ and ‘calling’ in the examples below with the “L” MONOVERB and POLYVERB examples in §2.1.1).

³⁰Attributive statives are distinct from stative predicates. See §2.2.2 below and 11:§4.6.

2.2. Gerunds

2.2.1. Gerund form. The segmental citation forms for gerunds are as follows:

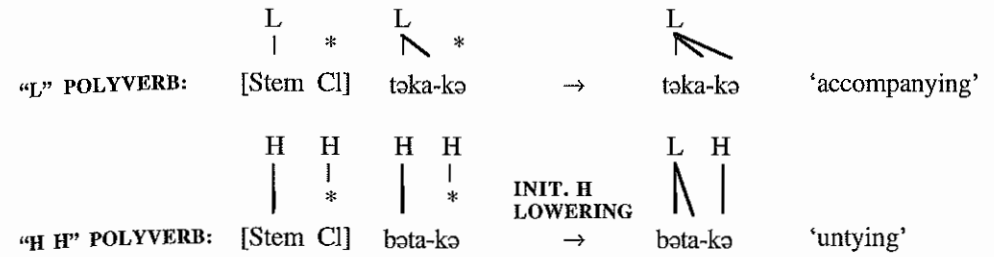
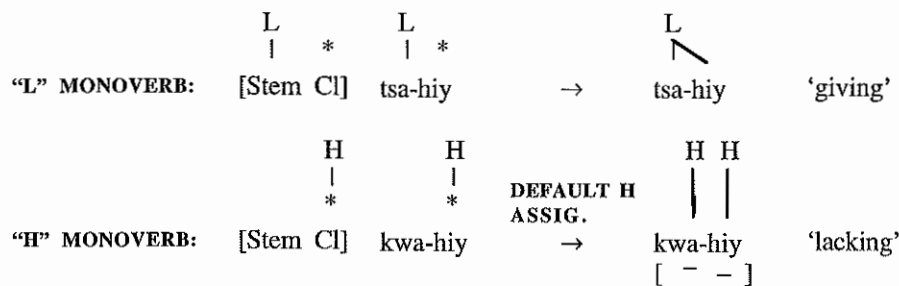
MONOVERB: Cahiy

POLYVERB: ...C_fakə (C_f = final stem consonant)

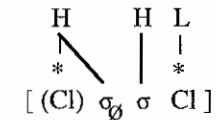
Tones of gerunds can be predicted from lexical verb tone classes (§§1.2.3.1-5). Following are gerunds exemplifying each tone class, and within each tone class, stems of all possible terminations and consonant combinations. The finite stem is in parentheses:

“L” MONOVERB:	(tsa)	tsàhiy	‘giving’
“H” MONOVERB:	(kwa)	kwáhiy	‘lacking’
“L” POLYVERB:	(təka)	təkakə	‘accompanying’
	(zar)	zàrakə	‘calling’
	(kwarta)	kwàrtakə	‘digging’
	(rəvəza)	rəvəzakə	‘becoming fat’
“H H” POLYVERB:	(bəta)	bətakó	‘untying’
	(rafə)	ràfakó	‘moistening’
	(bàbəla)	bàbəlakó	‘saying (many times)’
	(rəvəðə)	rəvəðakó	‘becoming thin’
“H L” POLYVERB:	(təla)	təlákə	‘entering’
	(mar)	márakə	‘getting’
	(byabiya)	byábìyàkə	‘piercing (many times)’
	(vərkə)	vərkákə	‘giving birth’

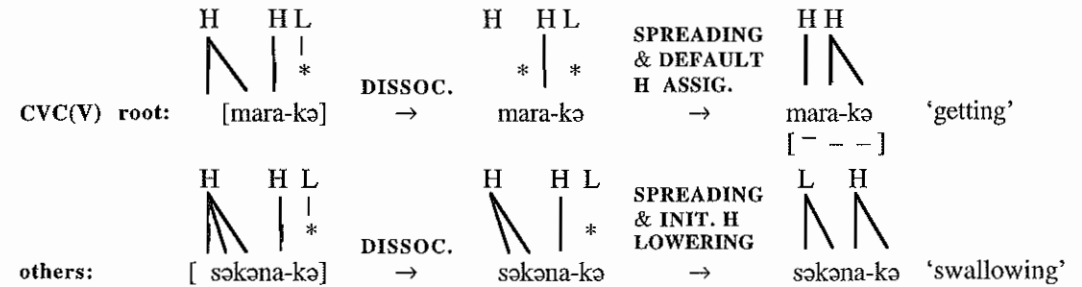
The lexical tonal schemata in §§1.2.3.1-5 which assign tones to verbs also assign tones to gerunds in all classes except the “H L” POLYVERB class. Tone assignment is illustrated below for each of the non-problematic classes. I assume that *-kə* of the POLYVERB classes and *-hiy* of the MONOVERB classes are Toneless clitics. Gerunds will never have proclitics, so I omit the part of the tone assignment schemata applying to proclitics. A * above a clitic means that it is Toneless, and by convention, tones spread rightward to encompass a Toneless domain unless some other tone preempts it:



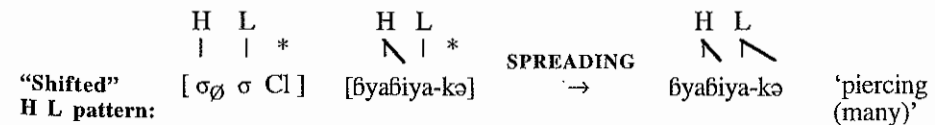
The schema for “H L” POLYVERBS is as follows:



By making two adjustments, we can account for the tones of gerunds using this schema. First, the final L associated with the clitic is dissociated for verbs in their non-pluractional forms. Second, unlike the schemata used to account for the gerunds of other classes, in this class, the tone associated with the proclitic is retained. This second adjustment is not really ad hoc for gerunds because even with finite verbs, the initial tone is associated with the non-final syllables of the stem if there is no proclitic. In gerunds, this association takes place when root structure is other than CVC(V); with the latter root structure, the initial H is left unassociated:



In §1.2.3.3, I note that with pluractional forms of the “H L” POLYVERB class, the lexical tone pattern is shifted leftward such that the L associated with enclitics falls on the final syllable of the verb. The same is true of gerunds of these pluractional verbs. The shifted schema actually ends up with just two tones: the H associating with the non-final stem syllables and the L with the stem final syllable, with subsequent spread to the Toneless syllable *-kə* of the gerund. There is a problem with this analysis in that the H on the verb stem should become L by INITIAL H LOWERING. I leave this as an unresolved problem with the analysis.



This description accounts for nearly all the gerund forms of "native" verbs in my data. However, in the "H L" POLYVERB class, I found three non-pluractional gerunds bearing the [H L] rather than the [L H] pattern and one which was probably historically a pluractional with the [L H] pattern rather than the [H L]:

Non-pluractional ([H L] pattern)		Probable pluractional ([L H] pattern)	
búwyàkə	'breaking (stick)'	tsòdɔ́fákə	'carving'
dʃhənàkə	'tying'	/tsàwɔ́fákə/	
rəfənàkə	'thatching'		

I originally accounted for these gerunds by setting up additional lexical tone classes. However, since both tone patterns exist for gerunds of the "H L" POLYVERB class, it seemed preferable to include all these as members of one lexical tone class, recognizing some fluctuation as to which verbs utilize the tone shifting pattern. I mention similar variation in the tone patterns of verbs of this class at the end of §1.2.3.3.3. Borrowed verbs, which share certain tonal features with the "H L" class, have gerunds with a H-L pattern as well (§1.2.3.7).

2.2.2. Gerund function. Gerunds, being nouns, have grammatical gender, which conditions such features as demonstrative agreement and type of genitive linking. I collected gerunds for every verb, but I did not check gender for all gerunds. Of those I checked, the majority are feminine; there is no apparent correlation of gender with verb class (termination or tone class) or meaning of the verb. The figures for feminine vs. masculine gender for the gerunds I checked are as follows:

Feminine: 52 Masculine: 17

Gerund phrases can contain expressed subjects or objects. The syntax of gerund + subject differs from that of gerund + object: the former uses the "linked" genitive construction, the latter uses the "direct" genitive construction (10:§3.1). Regular rules of genitive syntax and phonological rules account for the form of gerund + argument constructions with one exception: for POLYVERBS, in gerund + pronoun object constructions, instead of the expected *-akə* suffix, the gerund has a suffix *-ahiy*, seen elsewhere only with gerunds of MONOVERBS.

GERUND + SUBJECT³¹

Nominal subjects:

MONO-V	L	dàhiy ta zəkíy	'stone's falling'
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³¹With intransitive verbs, the direct genitive construction is a possible alternative for subjects, e.g. *zàahiy tafə = zàhiyafə* 'your (ms) entering', *bàwakə taatlón = bàwahiyatlón* 'their going out'. The same variation exists for deverbal nouns with expressed subjects (see §2.3.2). These constructions would, of course, admit no ambiguity between subject and object reading. The linked construction is not possible for objects of gerunds under any circumstances.

POLY-V	L	ghə̀nakə ta ghə̀nsə̀ bàwakə ta Kasham gə̀makə ta Ndúuyà 'ənáa Jàalá	'storm' ("God's metamorphosis") 'Kasham's going out' 'Nduya's and Jala's meeting'
	H H	ghə̀dzakə̀ ta mootà dzàrakə̀ ta sə̀bə̀	'a car's turning' 'people's dispersing'
	H L	kíyákə̀ ta 'iy və̀rkákə̀ ta 'ám	'a dog's biting' 'a woman's giving birth'

Pronominal subjects:

MONO-V	L	zàhiy tafə̀ màhiy tuwun	'your (ms) entering' 'my forgetting'
	H	bàhiy tuwun	'my going'
POLY-V	L	bàwakə̀ taatlón gə̀makə̀ taama	'their going out' 'our meeting'
	H L	kíyákə̀ tuwun və̀rkákə̀ taazà	'my biting' 'her giving birth'

GERUND + OBJECT

Nominal objects:

MONO-V	L	sàhiy(a) aabíy	'drinking water'
	H	kwáhiya laafiyeewátə̀	'illness' ("lacking health")
POLY-V	L	kə̀raka mír ghànaka ndúwùl təkaka baa'iy	'stealing oil' 'molding a pot' 'accompanying guests'
	H H	ghə̀dzakə̀ bangə̀ ràbaká kábə̀	'performing rituals' ("turning drum") 'moistening a gown'
	H L	pə̀ráka ghərùw və̀rkákə̀ vərəkə̀	'slaughtering a cow' 'giving birth to a child'

Pronominal objects:

MONO-V	L	màhiy-wun	'forgetting me'
POLY-V	L	gə̀mahiyaa-ma təkahiya-tlón	'joining us' 'accompanying them'
	H L	kíyáhiy-wùn və̀rkáhiyùw-sə̀	'biting me' 'giving birth to him'

Gerunds have the following functions:

(a) **Nouns expressing the action of the verb:** For verbs that do not have deverbal nouns (§2.3), gerunds are used in concrete or result senses:

báhíy	'firewood'	< ba	'to split wood'
ndzàhiy	'poverty'	< ndza	'to become poor'
káfakə	'message'	< kafə	'to send'

This function is also clear in words which must historically be gerunds but where the original verb has apparently fallen into disuse, such as the following:

mbàsakə	'evil; smallpox ("the evil one")'	? < *mbasə	'be evil'
e.g. dlərambə bá mbàsakə	'evil <i>dodo</i> ("dodo possessor of evil")'		
mbàsaka hali	'evilness of character'		

(b) Nominalized complements of verbs and nominalized purpose phrases (13:§§2-3, 14:§9):

à njaa súw zahiyuw-sə	'he refused to enter'
sábòoda doonak(a) aabíy bá sáw	'in order to look for drinking water'

See 13:§§2-3 and 14:§9 for further examples and the end of §2.1.2 above for discussion of participles as an alternative to gerunds in these constructions.

(c) **Predicate statives** (11:§4.6):³² For verbs which lack a deverbal noun, the gerund predicates a state implied by the verb. The gerund in this function is always preceded by *áa-*, which I interpret in 11:§4.6 as a prefix on the gerund used to express state. See 11:§4.6 for discussion and further exemplification.

kàbə nd-áa-ràbakə	'the gown is soaked'
tliwiy tə nd-áa-kàwakə	'the meat is fried'

(d) **Verb in Continuative constructions** (5:§2.2.3.2): The gerund is an option to the participle in Continuative constructions using the auxiliary *àa-táa*. See 5:§2.2.3.2 for further discussion and exemplification.

t-àa-táa bótakə (gerund) = t-àa-táa bótá bótaw (participle + cog. comp.) 'he is untying'

2.3. Deverbal nouns

2.3.1. Deverbal noun form. Deverbal nouns correspond to English derived nominals. As in English, there seems to be no way to predict what form a deverbal noun will take for a given verb root, nor even whether a verb will have a deverbal noun. For verbs without a deverbal noun, the gerund carries this function (cf. English 'come', which has a single form 'coming' which functions both as gerund and deverbal noun vs. 'arrive', which has a deverbal noun 'arrival' and a gerund 'arriving').

Forms of verbal nouns do not correlate with the lexical classes established for verbs. The categorization below is based on several features that are typical of deverbal nouns, viz.

- a prefix *-a* (cf. 8:§2.4.1)

³²Predicate statives are distinct from attributive statives. See §2.1.2 above and 10:§5.1.3.

- insertion of *-a-* into the stem
- reduplication
- morphological palatalization (2:§4)

Many deverbal nouns combine two or more of these features. Tone roughly correlates with verb tone class, but it cannot be fully predicted. In examples, I give the tone class for the base verb but do not attempt to group the deverbal nouns in terms of tone classes. In contrast to gerunds, the gender of most deverbal nouns is masculine (cf. §2.2.2).

Following is an exhaustive list of deverbal nouns from my corpus:

(a) Simple root

ítli	(m)	'cough'	< 'itli (HL)
káy	(f)	'fighting'	< kay (HL)
dór	(f)	'grinding'	< dər (L)
wàsən	(m)	'year'	< wasəna (L) 'spend a year'

(b) Prefix *a-* (surface tones almost always H H, i.e. H + downstepped H)

[-palatalized]

ákúfə	(f)	'forging'	< kufa (HH)
ákúł	(f)	'clearing bush'	< kula (HH)
árədlə	(f)	'writing'	< rədlə (L)
átəm	(f)	'song'	< təmə (L)
átsəgə	(f)	'sitting'	< tsəga (L)
ábəsə	(f)	'bath, wash'	< bəsə (L)
ásár	(m)	'circumcision'	< sar (L)
ázábə	(f)	'dancing'	< zabə (L)
ároo	(f)	'request'	< raw (HH)
(note tone)			

[+palatalized]

átlyáđi	(f)	'farming'	< tlyadə (HH)
ákír	(f)	'theft'	< kəra (L)
árín	(f)	'copulation'	< rəna (L)
		(human)	
átívi	(m)	'walking'	< təva (L)
áwír	(m)	'copulation'	< wura (L)
		(animal)	
ázhəhə	(f)	'flaying'	< zəza (L)
ázhígə	(f)	'praise'	< zhiga (L)
átlyúw	(f)	'etching'	< tlyaw (L)

Prefix + internal *-a-*

átlyám	(m)	'shaving'	< tləma (L)
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(c) Internal *-a-* (with or without reduplication and prefixing)

Triconsonantal roots: C₁aC₂aC₃

[-palatalized]

tsàwadə	(m)	'carving'	< tsoodə (HL)
ràmatsə	(f)	'stomach'	< rəntsə (HL)
		ache'	
tàmasə	(m)	'itching'	< tansa (HL)
ràvadə	(m)	'thinness'	< rəvadə (HH)
ghàmatsə	(m)	'laughter'	< tsəga (L)
tàwazə	(m)	'planting'	< tənəzə (L)
(irregular C ₂)			

[+palatalized]

dyábyán	(m)	'transplanting'	< dəbən (HL)
ràvazhi	(m)	'corpulence'	< rəvuzə (L)

Reduplicated C₂ from biconsonantal roots: C₁VC₂aC₂

kwárarə (m) 'shouting' < kwar (L)	'isháshi (m) 'satiation' < 'əsə (HL)
	tlyákyáki (m) 'scratching' < tlakə (HL)
	'ímam (m) 'cutting off corn heads' < 'əma (HH)
	dìdyadi (m) 'falling' < dəda (L)
	myákaki (m) 'spending time' < makə (L)
	ràdyadi (m) 'dampness' < radə (L) 'decay'
	wàshashi (m) 'swelling' < wasə (L)
	zhàrarə (m) 'calling' < zar (L)

Reduplicated C₂ from triconsonantal roots: C₁VC₂aC₂aC₃

'adzadzam (m) 'grunting' < 'adzəma (L)	d'yáhyahyàn (m) 'tying' < d'əhən (HL)
	ráfyaŷyàn (m) 'thatching' < rəfən (HL)
	tyàbyabyan (m) 'abuse' < tabəna (L)
	wàshasham (m) 'year' < wasəna (L)

Reduplicated C₁ from biconsonantal roots ± a- prefix: (a)C₁aC₁aC₂

átsátsər (?) 'standing' < tsər (HL)	tyátifi (f) 'shooting' < təfə (HL)
átsátsəm (f) 'oath' < tsəma (HH)	

(d) -tə suffix (with or without prefix a-)

títytə (f) 'beating' < tiy (L)	áyerèti ³³ (m) 'growing old' < ghar (HL)
	ágwarzhiwátə (m) 'growing up' < gwarzə (HH)
	?ámǝlmàtí (m) 'miserliness' < mbəlmə (L) 'blink'

(e) Miscellaneous

<i>Forms akin to gerunds:</i>	cámakə (f) 'love' < cam (HH) cf. gerund <i>càmakó</i>
	átirəkə (?) 'whispering' < tərə (L)

<i>Forms akin to participles:</i>	sónáw (m) 'sleeping' < səna (HL)
	miyaw (m) 'death' < miy (L)
	ápíyaw (f) 'lying down' < piya (HH)

The last three forms cited above look like participles but differ from them in three ways. First, participles cannot be cited in isolation (§2.1.1). Second, two of these verbal nouns differ formally for the respective participles, viz. tones of participle for 'sleep' would be *sənáw* and the participle of 'lie down' would not have a prefix. Third, the final -w of

³³Under palatalization, underlying /gh/ becomes [y] (2:§1.2.2).

participles drops except before pause. With the verbal nouns here, the -w remains everywhere, e.g.

sónóo dóm	'dozing' ("sleeping of wood")
/sənaw/	
miyaw nuwsə	'his death'

In addition to the deverbal nouns listed above, where a related verb exists, there is a fair number of nouns which look as if they were originally verbal nouns but for which there are apparently no longer verbs in active use, e.g.

-a prefix

ádázhi	'poison'
áradí	'fart'
átá'ə	'odor'
átákə	'argument'

Internal -a- with triconsonantal root

dàgwafə	'mud for pot-making'
tàbasə	'wound'
tsàgwadə	'limping'

2.3.2. Deverbal noun function. Deverbal nouns appear in some of the same syntactic environments as gerunds and participles. There is surely some difference in function between deverbal noun and gerund or participle in these environments, but I do not have enough data to draw firm conclusions. Based on evidence from other Chadic languages, where the same differences exist, the deverbal nouns probably express senses of concreteness, result, or the action as a habit or occupation as opposed to an ongoing activity. We can identify the following functions of deverbal nouns:

(a) **Concreteness, result, habit/occupation:** In this function, there is a difference between gerunds and deverbal nouns. As noted in §2.2.2, gerunds can participate in nominalized verbal phrases with either semantic subject or semantic object. Deverbal nouns can appear in genitive phrases with semantic subjects, but I have found no examples in my data with expressed semantic objects. Thus, in the first two examples below, the deverbal noun is used with expressed subject, but when the object is expressed with the same root, the gerund is used. Note that deverbal nouns plus expressed subject use the linked genitive, as they would with gerunds (§2.2.2), but like gerunds of intransitive verbs, the direct genitive construction is an alternative (see fn. 31), as in the last two examples. The examples meaning 'his death' are from similar environments in texts; the direct construction uses the gerund instead of the deverbal noun.

átlyádi ta Kasham	'Kasham's farming'	but	tlyàdáká zúw	'cultivating sorghum'
áradlə tuwun	'my writing'	but	rədlaka wasíykà	'writing a letter'
átən ta mèemeeny				'the Miyas' song'
'ítlyi na vórka	= 'ítlyə vórka			'the child's coughing'
miyaw nuwsə	= miyahiy-uwsə			'his death'

(b) **Nominalized complements of verbs and nominalized purpose phrases (13:§§2-3, 14:§9):** Deverbal nouns can appear as nominalized complements to verbs and in purpose phrases introduced by *ée*, functions also expressed by gerunds (§2.2.2), e.g.

míy faarà táwàzà bónà					'we began <i>planting</i> yesterday'	
dè kiya tív-ay					'he set out <i>walking</i> '	
kóowèenéekì	aa	b-uws	ée	tívi	nuwsə	'everybody was going out <i>for his stroll</i> '
everybody	Ipf	go-ICP	for	strolling	his	

In the verbal complement constructions, the likely difference between the deverbal noun and the gerund is that the deverbal noun expresses the action as a unit, i.e. without focus on a particular object, goal of motion, etc.³⁴ and in effect is a real object of the verb, whereas the gerund expresses the activity and the main clause verb is an auxiliary. In the purpose phrase, the difference between deverbal noun and gerund may correspond to the difference between English *for* and (*in order*) *to*, e.g. 'he went out *for* a stroll' (with a noun complement, modified by a determiner) vs. 'he went out *in order to* stroll around' (with an infinitive complement).

(c) **Attributive and predicate statives** (10:§5.1.3, 11:§4.6): Deverbal nouns can appear in expressions of state. The attributive stative function can also be filled by the participle (§2.1.2, 10:§5.1.3). The two expressions below were given as equivalents:

səm ba	tsáǵə (?)	=	səm bá	tsəǵuw-sə		'the seated man'
	deverbal N			participle + ICP		

The word *ba* is both a relative pronoun and a word meaning 'one who has/does/is characterized by' (10:§5). I suspect the difference here is similar to the difference between the English expressions 'the seated man' ('man characterized by sitting', with deverbal noun in Miya) and 'the man who has sat down' (the expression with the participle in Miya, which is the normal way of expressing a relative clause in the perfective).

The predicate stative function can also be filled by the gerund (§2.2.2, 11:§4.6). In the set of examples I have of this type of sentence, verbs which have a special deverbal noun always use the deverbal noun rather than the gerund. I did not check to see whether the gerund is also an option. In 11:§4.6, I argue that predicate statives have a prefix *áa-* when the verbal form (gerund or deverbal noun) begins in a consonant and *ée-* when it begins in a vowel. See 11:§4.6 for further discussion and examples.

málv	ée-tsáǵə	'the chief is <i>seated</i> [deverbal noun]'
ghəruwiy	ée-tsátsə	'the cattle are <i>standing</i> [deverbal noun]'
ndüwul	áa-báhíy	'the pot is <i>broken</i> [gerund]'

(d) **Verb in Continuative constructions** (5:§2.2.3.2): The deverbal noun or the gerund are options to the participle in Continuative constructions using the auxiliary *àa-táa*. See 5:§2.2.3.2 for further discussion and exemplification.

t-àa-táa	zhàraró	(dev. N) =	ta-àa-táa	zàra	zaráw	(participle + cog. comp.)	'he is calling'
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³⁴For transitive verbs, the sense would be that of expressions like 'he began *eating/reading/planting*', etc. where a semantically transitive verb is used "intransitively"—misleadingly called "object deletion" constructions in older transformational studies. With intransitives, the sense would be something like 'we began our *trip*' (cf. 'we began *traveling*').

TENSE, ASPECT, MOOD (TAM) SYSTEM: VERB AND CLITIC FORMS

1. Overview of the Miya TAM System

Miya TAM forms fall into two major groups, which I will refer to as verbal TAM's and nominal TAM's.¹ These two formal groups do not align with function or semantic properties, e.g. a particular aspectual or modal property may be expressed by a verbal TAM in some syntactic environments but by a nominal TAM in others. The following characteristics distinguish verbal and nominal TAM's:

Verb form: *Verbal* TAM's use a "finite verb", i.e. the form of the verb which reveals lexical vowel class (4:§1.1.1) and which can appear only as the head of a verb phrase. *Nominal* TAM's use participles (4:§2.1), all of which end in *-a* and have certain nominal properties.

Pronominal enclitics: *Verbal* TAM's have distinct sets of pronominal enclitics for direct objects and intransitive copy pronouns (§§4.1-2), and these particular enclitics fill only these functions. *Nominal* TAM's use the same set of enclitics for both DO and ICP, and this is the same set of enclitics used as genitive pronoun suffixes to nouns (8:§1.3, 10:§3.1).

Position of Negative and Totality markers: Both verbal negation (§3) and the Totality construction (7:§2) have a discontinuous structure which brackets part or all of the verb phrase. In *verbal* TAM's, negation and Totality bracket only material following the verb (nominal objects, adjunct phrases); in *nominal* TAM's, the bracketed portion includes the verb. Thus, in the Perfective (verbal) we have *à már mǎ zhaak-úw* 'he did not get a donkey' whereas in the Imperfective (nominal) we have *tó mǎ mara zhaak-úw* 'he will not get a donkey'. See the sections cited above for further examples.

Section 2 presents the formal properties of affirmative TAM's and section 3 the formal properties of negative TAM's. Section 4 presents the three types of pronominal clitics to verbs, showing how verbal and nominal TAM's differ in that respect. The table on the next page summarizes the affirmative TAM's (see §3 for negative TAM's). The numbers in parentheses are the respective sections of this chapter:

¹This distinction corresponds to a distinction between *verbale Aspektstämme* and *nominale Aspektstämme* which Lukas (1970-72:§68) makes for Bolanci, a West Chadic-A language. I was working on Bolanci and Miya at the same time. I do not now recall whether I borrowed this distinction in Miya from Lukas or whether I arrived at the division independently, then realized that it corresponded to Lukas's distinction.

Affirmative Verbal TAM's

Imperative (2.1.1)
 Hortative (2.1.2)
 Perfective (2.1.3)
 Counterfactual (2.1.4)

Affirmative Nominal TAM's

Perfective with focused subject (2.2.1)
 Subjunctive (2.2.2)
 Imperfective (2.2.3)
 Imperfective with focused subject (2.2.4)
 Conditional Future (2.2.5)
 Conditional with *kwáa* (2.2.6)
 First person Hortative (2.2.7)

2. Affirmative TAM's: subjects, auxiliaries, and verb forms

Verb tone is a function of lexical class (4:§1.2.3), not of TAM, and in verbal TAM's, final vowel is also a function of lexical class (4:§1.1.1). Hence, these sections discuss just those formal features which distinguish one TAM from another. To facilitate comparison of TAM's, I have, where possible, used the L tone class verbs *təka* 'accompany', *bəsə* 'wash', and *zar* 'call'. The first is of the *-a* termination class; the latter two are of the \emptyset class, but differ in that *bəsə* has an obstruent as its final consonant, necessitating a stem final *ə*, whereas *zar* ends in a sonorant.

2.1. Verbal TAM's

2.1.1. Imperative. There are Imperative forms for second person singular and plural and for first person plural (translatable as 'let's ...'). These are in complementary distribution with the Hortative (§2.1.2), which is used only with third person. There is also a first person Hortative, singular or plural (§2.2.7). *Singular Imperative* is the bare verb form, *plural second person Imperative* adds a suffix *-iy*, and *plural first person Imperative* adds the plural suffix *-iy* plus a further suffix *-ma*. See 4:§§1.2.3.6.2-3 for tonal properties of the suffixes.

	'accompany'	'wash'	'call'
2 sg	təka	bəsə	zər
2 pl	təkíy	bəsíy	zəríy
1 pl	təkíymá	bəsíymá	zəríymá

2.1.2. Hortative. The Hortative is used to issue a command to third person subjects and is thus in complementary distribution with the Imperative (§2.1.1). An auxiliary *tə* precedes the verb. Third person nominal subjects precede the auxiliary. To show number or gender when no nominal subject appears, it is possible to use the independent pronouns (8:§1.1) before the auxiliary, but this was rarely volunteered in elicitation.

	'accompany'	'wash'	'call'
'let him/her/them ...'	tə təka	tə bəsə	tə zar
'let Kasham call'			Kásham tə zar

2.1.3. Perfective. The Perfective expresses completed action with active verbs and existing state with stative verbs. It uses a distinct set of subject pronouns for first and second persons and an auxiliary *à* for third person subject when no nominal subject is

expressed. A third person plural pronominal subject can be overtly expressed by an independent pronoun preceding the auxiliary, though it is usually omitted. I found no examples of overtly expressed third person singular pronominal subjects, either in elicitation or in texts.

2.1.3.1. Perfective in clauses without questioned or focused constituents.

In affirmative main clauses without questioned or focused constituents, the Perfective is always cited with what I refer to as the Totality construction (7:§2). In the Perfective, this consists of *súw* ... *-áy* following the verb, where "... " may be a nominal object and/or various adjuncts. When "... " = \emptyset , the Totality extension contacts to *s-áy*. With intransitive verbs, *-áy* is often omitted, leaving just *súw*. See §2.1.3.2 for Perfective with focused or questioned non-subjects and §2.2.1 for Perfective with focused or questioned subjects.

	'accompany'	'wash'	'call'
1 sg	mán təka s-áy	mán bəsə s-áy	mán zər s-áy
2 ms	fə təka s-áy	fə bəsə s-áy	fə zar s-áy
2 fs	mà təka s-áy	mà bəsə s-áy	mà zar s-áy
3 m/f/pl	à təka s-áy	à bəsə s-áy	à zar s-áy
1 pl	míy təka s-áy	míy bəsə s-áy	míy zər s-áy
2 pl	nà təka s-áy	nà bəsə s-áy	nà zər s-áy

'Kasham accompanied' Kásham təka s-áy

The first two examples below show the Perfective with overt complements (a direct object and a locative respectively) after the verb and the *súw*...*-áy* Totality extension. The third and fourth examples show intransitive verbs with only the Totality extension *súw*. The last example is a standard greeting exchange in the morning:

à zar súw zhàak-áy 'he called a donkey'
 Pf call Tot donkey-Tot

míy zà-ma s-áakan-hà Róoy-ay 'we entered Roya's house'
 we-Pf enter-ICP Tot-house-of Roya-Tot

wùn mbəna-tla súw 'the girl is pretty'
 girl be pretty (Pf)-ICP Tot

Q: Fə tla-kú suw nd-à? A: Hòò, mán tla-wán suw.
 you arise-ICP Tot Prt-Q yes I arise-ICP Tot
 'Have you (m.sg.) gotten up?' 'Yes, I have gotten up.'

2.1.3.2. Perfective with questioned or focused non-subjects. When a constituent other than the subject is questioned or focused in the Perfective, the questioned/focused constituent is *in situ* and subject pronouns, auxiliaries, and verbs are the same as those in the preceding section, but the Totality extension is absent. Perfective sentences with overt nominal predicate arguments (objects, locative, etc.) are never volunteered with the Totality extension, suggesting that, *ceteris paribus*, such arguments

bear inherent focus. Likewise, sentences with cognate complements, which I interpret as verb focus (7:§5), never co-occur with the Totality extension. (See 12:§§2.2.2-8 for more extensive discussion and exemplification of questioned and focused non-subjects.)

Direct object:	Q: fà tǎka wēe? 'who did you accompany?'	A: mǎn tǎka SHAGǎM 'I accompanied SHAGǎM'
		A: mǎn tǎka-ya TÍY 'I accompanied HIM'
Locative:	Q: 'íy var 'íykwa? 'where did the dog run to?'	A: à vár ÀALǎM 'he ran INTO THE HUT'
Time:	Q: à náy-fǎ ghájà? 'when did he see you?'	A: à náy-wǎn BǎNÀ 'he saw me YESTERDAY'
Cognate comp.:	à wasu wásàw 'it swelled' (lit. 'it swelled swelling')	

2.1.4. Counterfactual. The Counterfactual expresses a counter-to-fact statement in the main clause of a counterfactual sentence. The Counterfactual is identical to the Perfective except that the verb has a suffix *-iy*, which replaces the lexical termination vowel. I discovered this TAM only after leaving the field, so I do not have full paradigms. See 14:§2.4 for more examples and discussion of counterfactual sentences.

à z-iy-ta s-áy AUX enter-Cf-ICP Tot	'he would have entered'
à kiy-íy s-aawihí tatǎn-ay AUX take-Cf Tot-things their-Tot	'they would have taken their things'
míy mǎr-íy marà zuw mbámánna we get-Cf getting sorghum good	'we would have gotten good sorghum'

Note the Totality extension in the first two examples. The third example has a cognate complement, which I suggest shows verb focus (§2.1.3.2 and 7:§5). Conditioning of presence or absence of Totality with the Counterfactual may thus be the same as for the Perfective (§2.1.3.1-2).

2.2. Nominal TAM's

2.2.1. Subjunctive. Formally, Subjunctive is a nominal TAM with no TAM auxiliaries. With third person subjects, the Subjunctive usually takes a morpheme *dǎ* (§2.2.9), labeled "Sjn" in examples. This morpheme cannot be called a pronoun because it co-occurs with nominal subjects (in other TAM's, overt pronominal and nominal subjects are mutually exclusive), but it cannot be an exclusively Subjunctive auxiliary either because it co-occurs with the Imperfective auxiliaries in certain environments (see §2.2.9 for a summary of environments where *dǎ* appears). Clauses in the Subjunctive often contain one of the particles *bíy/jíy* (§2.2.8), but like *dǎ*, these are not Subjunctive auxiliaries because they too can appear in a number of nominal TAM's. Subjunctive clauses have the following form:²

²Clauses with the auxiliary *éé* should perhaps also be classed as a type of Subjunctive. See §2.2.3.4.

{1/2 pronoun}
(*dǎ*) } (*bíy/jíy*) Verb ...

The Subjunctive paradigm is illustrated below extracted from the following frame:

t-áa lùw ... 'he wants (that X call)' he-1pf want			
1 sg	mǎn zaraw	1 pl	míy zaraw
2 ms	fáa zaraw	2 pl	nàa zaraw
2 fs	màa zaraw		
3 m/f/pl	dǎ zaraw		
'he wants Kasham to call'		táa lùw Kásham dǎ zaraw	

Miya has a number of clause types where one could argue for either of two analyses: (1) the clause function is marked by a nominal TAM with a special auxiliary, or (2) the clause function is marked by a conjunction and the clause contains a nominal TAM with no auxiliary (= Subjunctive). (These alternatives apply to most of the clauses covered in §2.2.6 below.) I have taken position (1) and have restricted the term "Subjunctive" to the TAM meeting the following conditions:

The TAM of a clause is said to be "Subjunctive" when

- (a) the clause has a nominal TAM;
- (b) it contains no TAM auxiliaries;
- (c) (i) if the clause has a third person subject, it contains the preverbal morpheme *dǎ* or could contain that morpheme;
- (ii) if the clause has a first or second person subject, it contains one of the clitic pronouns above or could contain one of those clitics.

With respect to (c i, ii) consider the examples below. The first example has a third person subject, with *dǎ* in the second clause. The second example is nearly identical to the first, both formally and pragmatically, but does not have *dǎ* in the second clause. In the third example, there are three clauses following the initial imperative. The first two each have a second person masculine singular Subjunctive pronoun (*fáa*), the third does not, yet there is nothing formal or pragmatic to distinguish the third clause from the first two. I therefore interpret all the clauses in question as being "Subjunctive", even where there is no overt Subjunctive clitic:

Mēemeeniy dǎ baa-tǎn dǎ jíy mará Masangá 'the Miyas went and found Masanga'
Miyas Sjn go-ICP Sjn Prt find Masanga

wíy vǎrkǎ dǎ buw-sǎ mǎra yáwun 'a boy went and found an elephant'
a boy Sjn go-ICP find elephant

Tà-ku fáa jíy kiyaw fáa bùwá-fǎ maru-wun.
go-ICP (2ms) you(ms)-Sjn Prt get you-Sjn come-ICP find-me

'Go and get (the stick left behind) and come back and find me.'

These formal conditions on what count as “Subjunctive” clauses allow us to give a fairly restricted semantic characterization of the Subjunctive:

The Subjunctive marks the event in a clause as being subsequent to the event in a preceding clause or following from a state or event expressed in a syntactically superordinate clause.

Thus, the Subjunctive appears in the following types of clauses: (i) events in sequence regardless of temporal frame of reference (6:§2.4); (ii) purpose clauses (14:§9.2); (iii) ‘before’ clauses (14:§4);³ and (iv) complements to “manipulative” verbs such as commands or verbs of desire (13:§§2.2, 3.3). One environment where the verb meets the formal criteria for Subjunctive but where this semantic characterization does not hold is in relative clauses with a perfective sense (10:§5.2). Given the rather idiosyncratic nature of TAM marking in Miya relative clauses, it may be that we should simply speak of a “Relative Perfective” which happens to resemble the Subjunctive formally.

Formal criterion (c i) for Subjunctive allows for the omission of *də*. Omission seems never to be obligatory, and environments for optional omission are rather restricted. I have found the following environments where *də* is omissible:

- the second or later event in a sequence where same subject is maintained (particularly common following a verb of motion)—see the second example just above;
- with conjunctions of purpose⁴

(with *də*) àadama zuw nuwsə də kəmay-uws-áy ‘so that his sorghum might spoil’
so that sorghum his Sjn spoil-ICP-Tot

(w.o. *də*) àadama díya səpən aa Kəsáy ‘so that Kasay might cook tuwo’
so that cook tuwo PS Kasay

- with *kàafən* ‘before’⁵

(with *də*) kàafən də bíy ná àa tliwiy ‘before the meat was done cooking’
before Sjn Prt be-done PS meat

(w.o. *də*) kàafən míy-úws aa málvó ‘before the chief died’
before die-ICP PS chief

- in Perfective relative clauses

(with *də*) səm b-áa də tsíy-uws aa Kəsham ‘the man whom Kasham asked’
man who-AUX Sjn ask-him PS Kasham

³Note that ‘before’ clauses are subordinate adverbial clauses where the event in the subordinate clause is subsequent to that in the main clause, a sort of mirror image to conditionals, where the event in the main clause is usually subsequent to that in the subordinate clause. ‘Before’ clauses are usually sentence initial. Sentences with ‘before’ clauses would thus not meet the condition that the preceding clause express an event earlier than that of the Subjunctive clause, but they would meet the condition that the event in the superordinate clause precede the event in the Subjunctive clause.

⁴The example clause with *də* has a preverbal subject while that without *də* has a postposed subject. I have no pairs of purpose clauses to demonstrate that this variable is irrelevant to the appearance of *də*, but in other clause types, *də* appears with subjects in either position.

⁵The clause with *də* contains the particle *bíy*, which is absent in the clause without *də*. While *bíy* seems never to occur without some preceding auxiliary, auxiliaries can appear without *bíy*.

(w.o. *də*) səm bá tsíy-úws aa Kəsham (same meaning)
man who ask-him PS Kasham

It seems that *də* may be omitted where context is enough to show the TAM. Reduction of this type is common cross-linguistically in close sequences. In purpose, ‘before’, and relative clauses, the conjunction or relative pronoun is sufficient to show TAM.

Criterion (c ii) for Subjunctive notes that first and second person Subjunctive subject clitics may also be omitted. Omission of first and second person clitics is less liberal than omission of third person *də* in that they may only be omitted under the first condition mentioned for *də*, viz. in a sequence of events maintaining same subject. The preceding verb seems always to be a form of the verbs ‘go’ or ‘come’, suggesting that this may be a type of complement to these verbs rather than a fact about Subjunctive per se:

tómây mən bú-wun Ø fala-fə wiy ‘let’s go, I’ll go and cut you another (stick)’
let’s go I go-ICP cut-you another

gànaa bu-wún Ø kiya-m(a) aakúw ‘let me go and get some fire for us’
I-Hrt go-ICP take-for us fire

fāa buwá-fə Ø mār-uwm ‘come and find me’
you(ms) come-ICP find-me

tà-kəm Ø tsáa kìn-wun ‘go give it to my co-wife’
go-ICP (2fs) give co-wife-my

míy bàa-má suw Ø náyà níy Ləfə ‘we went and saw Ləfə and the others’
we went-ICP Tot see &Co. Ləfə

Too, ta-kəm Ø dəma⁶ ghaduw maa kuw(a) aabiy maa dəra dər maa
well go-ICP (2fs) do wood you draw water you grind grinding you

buw-ɾɾm.
come-ICP

‘Well, go and gather wood, draw water, do the grinding, and come back.’

2.2.2. Perfective with questioned or focused subject. When the subject of a verb in a perfective sense is questioned or focused, the verb requires a nominal TAM rather than the verbal TAM described in §2.1.3. The Questioned/Focused Subject Perfective (FPF) uses either of two auxiliaries, which appear to be interchangeable:

(1) Subject_[Q/F] áa Verb⁷

(2) Subject_[Q/F] dš Verb⁸

Pronominal subjects with type (1) are segmentally identical to the independent pronouns but have all low tones; pronominal subjects with type (2) are segmentally identical to the Imperfective pronouns, but have all low tone with the exception of first person plural.

⁶Note in this example that the first sequential clause has no clitic yet the later clauses do.

⁷The high tone *áa* resembles the auxiliary used in Imperfective relative clauses (10:§5.2). However, they seem to be distinct, first, because of the aspectual difference and, second, because the one in relative clauses can be used with any relativized function, not just subjects.

⁸This *dš* is not the third person auxiliary *də*, discussed above in §2.2.1 for the Subjunctive or in §2.2.3.1 below for the Imperfective. The FPF auxiliary *dš* bears high tone and appears with subjects of any person; the auxiliary *də* bears low tone and appears only with third person subjects.

	Type 1	Type 2
'who called?'	w-áa zàraw-a?	wàa dós zàraw-a?
'it was Kasham who called'	Kásham aa zàraw	Kásham dós zàraw
'it was I who called'	mèn áa zàraw	mèn dós zàraw
you (m.sg.)	fíy áa zàraw	fàa dós zàraw
you (f.sg.)	màc áa zàraw	màa dós zàraw
he	t-áa zàraw	tò dós zàraw
she	nj-áa zàraw	njò dós zàraw
we	mìy áa zàraw	míy dós zàraw
you (pl.)	hèn áa zàraw	hèn dós zàraw
they	tlèn áa zàraw	tlèn dós zàraw

2.2.3. Imperfective. "Imperfective" refers to a group of nominal TAM's, all of which use an auxiliary *àa*. Semantically, Imperfectives express events viewed as incomplete. "Incompleteness" may represent events continuing over time (*progressive, continuative*), events not initiated with respect to the time of reference (*future, future perfect, intention*), or recurring events (*habitual*). Auxiliary elements may be combined with *àa* to specify the type of imperfectivity involved.

2.2.3.1. Imperfective without additional auxiliaries. The Imperfective auxiliary *àa* can appear alone before a verb in an impersonal meaning, i.e. 'one does ...' (see 11:§1.2.4 for discussion of impersonal subjects). Otherwise, some overt indicator of subject must precede *àa*. In independent clauses, this will be either a noun or a pronoun subject. In subordinate clauses (in particular, circumstantial clauses and Imperfective relative clauses), the subject indicator may be the third person clitic *dà* (*dà + àa → d-àa*), with or without a nominal or pronominal subject. (See §2.2.9 for discussion of the clitic *dà*.) The Imperfective without additional auxiliaries thus has the following schematic forms:

Subject (N or pro) *àa* Verb ...
 (3rd ps. N or pro) *d-àa* Verb ... (subordinate clauses only)

The Imperfective without additional auxiliaries has rather restricted distribution, and as a consequence I did not elicit a full paradigm of persons in this form. It would be identical to the "Type 1" in the Questioned/Focused Perfective immediately above, but with low tone on the auxiliary *àa*. Following are the environments where this form is found:

- *main clauses with something other than the subject questioned or in focus* (see §2.3.4 for questioned and focused subjects); *dà* is never used in this function⁹

⁹The situation for non-subject focus in the Imperfective is similar to that in the Perfective (§2.1.3.2). Besides sentences with overtly questioned or focused constituents, sentences with nominal predicate arguments or with cognate complements are virtually always volunteered in the Imperfective without extra auxiliaries. Questioned or focused subjects require a different construction (§2.3.4).

Direct object:	Q: fíy aa zara wêe? 'who will you call?, who are you calling?'	A: mèn aa zara KASHAM 'I will call KASHAM'
		A: mèn aa zar-uwsə tíy 'I will call HIM'
	Q: Ndùwya aa tónzà máa? 'what will Ndunya plant?, what is Ndunya planting?'	A: t-àa tónzà MÁRDÈ 'he will plant MILLET'
Locative:	Q: fíy aa ba-fó iykwa? 'where are you going?'	A: mèn aa b-uwn ÁAKÁASÛW 'I am going TO THE MARKET'
Cognate comp.:	t-àa hamá hamàw 'he will yawn, he is yawning'	

- *circumstantial clauses* representing continuous action overlapping event line actions and "background" clauses representing continuous or habitual activity in a narrative (14:§8); *dà* is optional

mùk-uwsə kídà t-áa tsìyáw 'he spent three days digging it'
 day-his three he-Ipf digging

kóowènéekì àa b-uws ée tívi nuwsə 'everyone was going for his stroll'
 everyone Ipf go-ICP for stroll his

níya kanhà jífə ka dè kiya gaangan tlón d-àa tókánáw
 people-of house-of husband PRM Sjn take drum they d-Ipf beat

d-àa d'əng(a) áandu w ...
 d-Ipf say Qt

'the people from the husband's house take drums and they are beating (and) they are saying ...'

... d-àa baa-tlón d-àa kúw(a) àabíy d-àa buwáy(a) àakam
 d-Ipf go-ICP d-Ipf draw water d-Ipf take to-home

'... they would go and they would draw water and they would take it home'

The form with *dà* and no pronoun seems to be preferred in (a series of) clauses where the subject has been established in the immediately preceding clause. There are no obvious conditioning factors for using or omitting *dà* when there is an overt pronoun subject.

- *Imperfective relative clauses with continuous or habitual meaning* (but not future); *dà* is obligatory in such relative clauses

jífə baa njə d-aa (aa)lùw-asə 'the husband that she loved'
 husband who she d-Ipf love-him

ée ná d-àa páa sámáy 'where they were dumping the sweepings'
 where AUX d-Ipf dump sweepings

2.2.3.2. Continuative: Imperfective + àatáa 'on'. To specify progressive action or habitual action (as opposed to future or intention), the Imperfective may combine with

the preposition *àatáa* 'on'. The Imperfective AUX always contracts with the preposition, i.e. *àa + àatáa → [àatáa]*. In examples I will write this as *àa-táa*.

The Continuative may appear in main clauses or in circumstantial and background clauses showing overlapping action. Unlike the simple Imperfective (§2.2.3.1), which appears in main clauses only when there is a questioned or focused non-subject element, the Continuative seems to appear only in clauses *without* a questioned or focused element.¹⁰ In circumstantial clauses, the third person marker *dà* may optionally appear with Continuative, as with the simple Imperfective (§2.2.3.1).

The Continuative differs from all other nominal TAM's in allowing the verb to be either a deverbal noun (4:§2.3) or a gerund (4:§2.2).¹¹ However, this option is possible only if the verb has no following complement. Like all other nominal TAM's, the Continuative requires the participle (4:§2.1) if there is an expressed object or cognate complement. In elicited examples of the Continuative, the cognate complement construction (7:§5) was frequently volunteered and was said to be equivalent in meaning to the deverbal noun or gerund. In the negative, either the deverbal noun or the simple participle is possible (the cognate complement construction is not allowed in the negative):

mèn aa-táa zhàrarə	Deverbal Noun	'I am calling'
mìy aa-táa zhàrarə	Deverbal Noun	'we are calling'
t-àa-táa zhàrarə	Deverbal Noun	'he is calling'
ta-àa-táa zàra zaráw	cognate complement	'he is calling'
t-àa-táa zàra vórkə	nominal DO	'he is calling the boy'
tó m-áa-taa zhàrar-úw	Deverbal Noun	'he is not calling'
tó m-áa-taa zàrá-w	participle alone	'he is not calling'
t-àa-táa tyatyafi	Deverbal Noun	'he is shooting'
t-àa-táa təfa təfaw	cognate complement	'he is shooting'
t-àa-táa təfà fúwày	participle + nominal object	'he is shooting a francolin'
t-àa-táa təf-úwsə	participle + pron. object	'he is shooting it'
t-àa-táa bótakó	Gerund	'he is untying'
t-àa-táa bóta bótaw	cognate complement	'he is untying'
t-àa-táa bə́tá mbə̀rguw	participle + nominal object	'he is untying the ram'
t-àa-táa bə́t-úwsə	participle + pron. object	'he is untying it'
t-àa-táa kàwakə	Gerund	'he is frying (something)'
t-àa-táa kàwa tliwiy	participle + nominal object	'he is frying meat'
tliwiy àa-táa kàw-uwə káwàw	ICP + cognate complement	'the meat is frying'
t-àa-táa isháshì	Deverbal Noun	'he becomes sated'
t-àa-táa nàhiy	Gerund	'he gets tired'

¹⁰I did not specifically check this distribution, but I have no examples, either elicited or from texts, with a Continuative clause containing a questioned or focused element. The Continuative seems never to appear in relative clauses, either.

¹¹The reason that deverbal nouns and gerunds can occur in this construction probably follows from the fact that, historically, at least, the *àatáa* ... phrase is a prepositional phrase, meaning that its complement must actually be a noun phrase rather than a verb phrase as is the case in other TAM's. For another construction with deverbal nouns in the predicate, see 11:§4.6, which discusses stative sentences ('I am seated', etc.).

Examples in circumstantial and background clauses:

də kwiya darhə d-aa-taa baa-za-y də dīya-za-y
Sjn catch road d-à-Ipf-AUX go-ICP-Tot Sjn follow-her-Tot
'she took to the road and as she was going along, he followed her'

Tò món d-àa-táa¹² (aa)cám na Cirdoma, kóowèena cán-eekiy á kafù-wun MÓN.
well I d-à-Ipf-AUX working of Ciroma any job-ever Ft send-me me
'Well, I was doing the work of Chiroma (a traditional office), and whatever work there was, they would send ME.'

də tiya múkw(a) aa-taa¹³ (aa)cám 'they spend the day working'
Sjn beat sun Ipf-AUX working

The Continuative with *àatáa* can combine with the AUX *g-* (next section) and with the Totality constructions (§2.2.3.5).

2.2.3.3. Imperfective with additional AUX *g-*. An auxiliary *g-* (in complementary distribution with a form *gàm*—see below) may precede the Imperfective *àa*. The following paradigm illustrates this form with the verb *bá* 'go', where the verb always has the ICP suffix.

1 sg	mèn g-aa buw-wún	1 pl	mìy g-aa baa-má
2 ms	fàa g-aa ba-fó	2 pl	hèn g-aa baa-ná
2 fs	màa g-aa b-írn/ba-ghəm/		
3 ms	tə g-aa bùw-só	3 pl	tìlən g-aa baa-tlən
3 fs	njə g-aa bàa-za		

I am not able to give a full characterization of the function of this form of the Imperfective. In terms of "Aktionsart", it seems to be compatible with the full range of Imperfective interpretations (progressive, habitual, future). Thus, the following examples were judged acceptable in either a habitual or future interpretation, though in translating Hausa *zaa* future, Vaziya usually volunteered the Imperfective with Totality marking (§2.2.3.5):

tə g-aa zara-fə 'he calls/will call you (ms)'
tə g-aa bəsa kábə 'he washes/will wash a gown'
tlən g-aa dzàra-tlən 'they disperse/will disperse'

¹²Note that the first person subject co-occurs with the morpheme *də*, which, according to my description, should appear only with third person subjects (see §2.2.1 and §2.2.3.1). There is clearly a discrepancy. In elicited data *də* was used exclusively with third person, and it is infrequent in texts (the example here, from a historical text narrated by the Chief of Miya, may be unique). The issue clearly would need further investigation.

¹³This example is vague between 'they spent the day (they were) working' and 'they spent the day at work', i.e. the final phrase can be interpreted as Imperfective AUX *àa + táa* + Verbal Noun or simply as a prepositional phrase "on work". It is surely this type of construction which has been the path by which *àatáa* has entered the verbal AUX system. The fact that *àatáa still* retains its prepositional character also explains why this, but no other TAM's, allow the verb to have the form of a deverbal noun.

bàzaniy wutó njè g-aa páa dzàfə hár vátə
girl one she AUX-Ipf collect male even five

'one girl collects/might collect/will collect as many as five suitors'

The *g-* seems to function as an operator with semantic properties going beyond pure TAM marking. It never occurs in negative clauses or in clauses where something is focused or questioned, suggesting incompatibility with these semantic factors. The *g-* Imperfective construction is particularly closely associated with non-negative Imperfective "yes/no" questions and with concessive conditionals, where it is found in both the conditional clause and the main clause when these have an Imperfective sense.

• *yes/no questions* (see 12:§1 for further discussion and examples of "yes/no" questions)

màa-za duw, "Màa g-aa b-írn wà?" 'her mother said, "Are you going?"
mother-her Qt you AUX-Ipf go-ICP Q

Yes/No Q: tə g-aa zara-za wa? g- + Ipf 'will he call her?'
he AUX-Ipf call-her Q

Answer: á zàra-za gam Conditional Future 'he will call her'
Ft call-her Prt (§2.2.5, q.v.)

• *concessive conditional clauses*: note in the second example that *g-* is combined with the *àa-táa* construction (§2.2.3.2) and that there is no *g-* in the negative main clause (see 14:§2.2 for further discussion and examples)

tán g-àa tluw-sə piy àa Kasham, tə g-aa d'əma ban kwaana 'ənáa mīy
if AUX-Ipf arise-ICP quick PS Kasham he AUX-Ipf do "adieu" with us

'even if Kasham is leaving in a hurry, he will say "adieu" to us'

tán g-àa-táa vīy-uwn áa m̀ay, m̀an má rəmə áamuwshày-úw
even-if AUX-Ipf-AUX kill-me PS hunger I NEG eat carrion-NEG

'even if hunger were killing me, I would not eat carrion'

What is apparently the same auxiliary *g-* is also found in certain types of non-verbal clauses, showing that *g-* is not purely an auxiliary in the verbal TAM system (see 11:§4 for discussion of non-verbal sentences):¹⁴

fàa g-áa mīr wa? 'do you have money?'
you AUX-with money Q

Q: góorò g-éeyí wa? 'are there any kola nuts?'
kola AUX-there is Q

¹⁴The *áa* in the first example below, with high tone, is the preposition 'with' used in 'HAVE' constructions (11:§4.3), not the Imperfective auxiliary *àa*, with low tone. The "Q-A" example illustrates *g-* with an existential construction, where *éeyí* literally means '...is there' (11:§4.4). The structure of the third example is unclear to me other than the fact that it involves a non-verbal clause. See 14:§2.1.1, last subsection for a discussion of this clause type.

A: hòo, tə g-éeyí 'yes, there are'
yes it AUX-there is

kwáa g-áa wásəm ká ndyáan sóbə ka də piya kám-ay
when AUX-Ipf(?) year PRM all people PRM Sjn return home-Tot
'when it is the rainy season, all the people return to their homes'

Further evidence that *g-* is a logical operator rather than purely a verbal TAM auxiliary comes from the fact that it appears to be an allomorph of a word *gam*, with *g-* appearing when directly preceding the Imperfective auxiliary *àa* or the postposed subject marker *àa* (11:§1.2.1), and *gam* elsewhere. This word may be used "adverbially", where it can be translated 'also, even' depending on context. The first example below shows *gam* in this function; the next two sentences are consecutive sentences from a text, where *g-* adds the sense 'too, also':

jée tluw-sə 'əfáa 'àn tuwsə 'əfáa wùtləmíy niywasə gan t́y
then arise-ICP with wife his with children his also him
'then he set out with his wife and his children and even himself'

(i) ... də d'ənga-tlá aanduw, "Wáncèe, m̀ən áa¹⁵ àaluw-ghèn."
Sjn say to-her Qt So-and-so I pln love-you

(ii) Kwáa yàrda ká də bəlá-ya aanduw, "M̀ən g-áalùw-fə."
if agree Prt Sjn tell-him Qt I also-love-you

(i) '... then he says to her, "So-and-so, I love you."

(ii) 'If she concurs, then she tells him, "I also love you."

Moreover, *g-* preceding an Imperfective auxiliary seems to be an alternative, or semantically closely related to *gam* following the verb in two other environments. First, both variants are found in concessive conditional sentences. Second, *g-àa* (*g-* + Ipf AUX) seems to be an alternative to the Conditional Future AUX with *gam* following the verb. See §2.2.5 for discussion and illustration of this latter case. Compare the following concessive conditional sentence with the one above (and see 14:§2.2 for further examples and discussion):

m̀ən ta mar g̀am mootá má ghàra-za, m̀ən g-áalùw
I even-if get "even" car that be old-ICP I AUX-want

'even if I get an old car, I want it'

In summary, there is an element *g-* which can be used in conjunction with the Imperfective auxiliary *àa*. In some of its uses it seems to have a purely tense/aspect marking function, associated with the future or habitual (though not continuative) features of Imperfectivity. However, its syntactic association with yes/no questions and concessive conditionals and its morphemic association with *gam* "also, even" suggest that it has a function as a logical operator beyond its purely verbal TAM marking function. A full explication of the operator function would require fuller data and more competence in

¹⁵The transcription here is as spoken on the tape-recorded version. The first *áa*, labeled "pln" is probably a pleonastic *aa*. See 11:§13, esp. the end of that section for a discussion of this example.

formal semantics than I have, though I do suggest how yes/no questions and concessive conditionals are semantically allied in 14:§2.3.¹⁶

2.2.3.4. Imperfective with AUX *ée*.¹⁷ I can do little more here than list what appear to be environments in which an AUX *ée* is used with a participle. It is not obvious that all these environments even involve the same morpheme, though punctuality as opposed to progressive activity seems to be a unifying semantic feature. This AUX may be derived from the locative “place of” (8:§6.3), though the semantic connection is not clear aside from environment (4) below.

(1) “Cohesive clauses” using *dàgà* ‘upon’ (< Hausa *dàgà* ‘from’): In these clauses, *ée* seems to be optional (14:§3.1). The AUX always contracts with *dàgà* to give *dàg-ée* (which I sometimes heard as *dàg-áy* or *dàg-áy*). In such clauses, nominal subjects are either placed clause final or are topicalized to sentence initial position before *dàgà*. When the subject is pronominal, *ée* is repeated before and after the pronoun (second and third examples below):

dàg-ée piyáw àa níy màa-za, dè jíy marà-za duw, “Bàrkà-na!”
upon-AUX return PS &Co mother-her Sjn Prt find-her Qt greeting-your (pl)

‘when her mother and the others returned, they found her, and she said, “Greetings to you!”’

dàg-ée mèn *ée* zàra-tlón, dè buwá-tlèn dè bíy tsèga-tlón-ày
upon-AUX I AUX call-them Sjn come-ICP Sjn Prt sit-ICP-Tot

‘when I called them, they came and sat down’

<i>dàg-ée</i>	{	<i>fiy-ée</i> <i>màc-ée</i> <i>mìy-ée</i> <i>hàn-ée</i> ...	} zàra-tlón ...	‘when	{	you (m) you (f) we you (pl) he/she/they	} called them ...’
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dàgà zàra-tlón aa Kàsham ... ‘when Kasham called them ...’

(2) *j-ée* “then”: This construction marks continuation of a sequence of actions already established (14:§3.2). It seems to be a contraction of the particle *jíy* (frequently used as part of a Subjunctive clause marking sequence—14:§3.2) with *ée*. As with *dàg-ée* in (1) above, nominal subjects in *j-ée* clauses are either clause final or are in topic position before

¹⁶In Hausa, the word *ko* shares syntactic distribution with Miya *g-igam* in that it marks concessive conditionals and can also optionally introduce a yes/no question. The Hausa and Miya words show an interesting divergence in the meaning ‘even’, however. The Miya morpheme can have an inclusive sense of ‘and even, even including’. In Hausa, the word *har* has this function. Hausa *ko* is used in negative contexts to mean ‘(not) even’, whereas Miya *g-igam* cannot be used in negative contexts. In fact, I am not sure how Miya speakers express ‘(not) even’. They may now simply use Hausa *ko*, which has been borrowed in other functions, including as the disjunctive ‘or’ and as a marker of generics (9:§5.1).

¹⁷In retrospect, clauses with the auxiliary *ée* should probably be classified as a type of Subjunctive (§2.2.1). Most uses of *ée* are punctual sequence or purpose, typical of Subjunctive. Only the use in relative clauses is Imperfective.

j-ée, but when the subject is pronominal, *ée* is repeated before and after the pronoun, as with *dàg-ée*:

j-ée d’ànga-yá àa ‘an ká dùw, “Món bòo-wan áa àaGítuwà.”
then-AUX say to-him PS woman PRM Qt I originate-ICP from Gituwa

‘then the woman said to him, “I come from Gituwa.”’

àbáaya míy úy súw dàm-áy, *j-ée* mìy *ée* fà-y
after we chop Tot tree-Tot then-AUX we AUX split-Tot

‘after we had chopped down the tree, then we split (the wood)’

(3) Future relative clauses (10:§5.1):

mèn aa-táa d’òona bá na d-ee r’òtlà J’áalà
I Ipf-Ct seek who AUX d’-AUX throw down Jala

‘I am looking for someone who will throw down Jala (in wrestling)’

(4) *Purpose phrases* (14:§9): This may not be the same function as the previous three, which involve “tensed” clauses. Purpose phrases are nominalized phrases, where the subject of the purposive verb is the same as the subject of the main clause:

à ba-tlón ee kuw(a) àabíy ‘they went in order to draw water’
Pf go-ICP AUX draw water

2.2.3.5. Future using the *s-... -áy* Totality construction. In elicitation, Vaziya almost always volunteered the following construction as a translation of Hausa *zaa* future in affirmative, declarative clauses without questioned or focused elements:

Subject *s-áa* Verb ... *-áy*

Formally, this is the Imperfective embedded in the Totality construction (7:§2). The high tone of the Totality marker *s(úw)* replaces the low tone of the Imperfective auxiliary *àa* in this construction. Following is the full paradigm for this Future construction:

1 sg	mèn s-áa zàr-áy	1 pl	mìy s-áa zàr-áy
2 ms	fàa s-áa zàr-áy	2 pl	hèn s-áa zàr-áy
2 fs	màa s-áa zàr-áy		
3 ms	tè s-áa zàr-áy	3 pl	tlèn s-áa zàr-áy
3 fs	njè s-áa zàr-áy		

Ndùwya s-áa zàr-áy ‘Nduya will call’

As in the Perfective, the final clitic *-áy* may be omitted from the Totality construction with intransitive verbs (§2.1.3.1), though in practice, this is not as common in the Imperfective as in the Perfective:

s-áa buwa-tlèn ‘they will come, one (impersonal) will come’

I hypothesize that the Future reading for such clauses (as opposed to progressive) is semantically allied to the obligatory use of the Totality in the similar range of clauses in the

Perfective (§2.1.3.1), viz. in both cases Totality functions as a “Completive Aspect” marker. This interpretation is obvious for the Perfective; for the unextended Imperfective, which simply means “non-completed” (future, progressive, habitual), addition of the Totality appears to give the sense of projected completedness.

The Continuative with *àa-táa* (§2.2.3.2) may combine with the Totality. In this case, the progressive sense overrides the future sense of simple Imperfective with Totality. I cannot say what element of meaning the Totality adds. The last example below is a circumstantial clause, showing that this combination is not restricted to main clauses:

tə s-áa-taa bəs-áy	‘he is washing’
mən s-áa-taa b-úwn-ày	‘I am going’
mìy s-áa-taa b-ám-ày	‘we are going’
də mará yáwun s-aa-táa sənáw-ay	‘they found an elephant sleeping’
Sjn find elephant Tot-Ipf-Ct sleeping-Tot	

2.2.4. Imperfective with questioned or focused subject: AUX *jíy*.

Questioning or focusing the subject of a sentence in the Imperfective requires the auxiliary *jíy*, which precludes using any of the Imperfective auxiliaries described in §§2.2.3.1-5. I failed to collect a full paradigm of focused subjects in all persons, but the available examples show that this TAM uses the Imperfective subject pronouns (see paradigm immediately above in §2.2.3.5) plus the auxiliary *jíy*. This configuration is the same one used in non-verbal sentences to indicate subject focus (12:§2.3).¹⁸

Q: wàa jíy zàr-uws-a?	‘who will call him?’
who FIp call-him-Q	
A: { mən jíy zàr-uwsə	‘I will call him’
{ tə jíy zàr-uwsə	‘HE will call him’
{ Kásham jíy zàr-uwsə	‘KASHAM will call him’
Q: màa jíy mbyará kàbə taf-a?	‘what will tear your (ms) gown?’
A: ghàduw jíy mbyará kàbə tuwun	‘WOOD will tear my gown’
Duw, “Mən aa doona ‘ázùrfa t-aakən-ghəm.”	‘He said, “I am seeking that silver (ring) on your (fs) hand.”’
Duw, “Á’a, fàa jíy tsà-n tafə.”	‘She said, “No, YOU (ms) are going to give me yours.”’

In the last exchange above, from a folktale, the boy’s statement is in the Imperfective with no additional auxiliaries (*mən aa* ...), a construction which shows focus of a non-subject (§2.2.3.1)—here the silver ring on the girl’s finger. The girl’s response actually focuses BOTH subject and object (‘YOU will give me YOURS’), but syntactically the subject focus preempts overt focus of the other constituent.

¹⁸The Questioned/Focused Subject Imperfective AUX is identical to the particle *jíy* which optionally appears with several nominal TAM’s in uncertain function (§2.2.8). I treat them as separate morphemes here. Unlike the homophonous particle, the meaning of the Q/F auxiliary is clear—it marks a sentence as having a questioned or focused subject. Moreover, it is obligatory in Q/F Subject constructions, and its presence precludes any other AUX’s.

2.2.5. Conditional Future with AUX *á*. Semantically allied to the Imperfective *àa* is a short, high tone AUX *á*, which I will refer to as the “Conditional Future”. The examples below will show that it can express a single event or habitual events which are posterior to a time of reference. The time of reference can be the present, the normal assumption in the absence of context to the contrary, or a time in the past.

The Conditional Future is particularly frequent in main clauses following the expression of some kind of condition, e.g. a conditional clause or a topicalized phrase such as a temporal adverb or noun phrase referring to some generic condition. Here, the Conditional Future is in near syntactic complementary distribution with the Imperfective, which is rarely used to express futurity in a context following a condition. There does seem to be semantic overlap with the Subjunctive when indicating the next event following the event in the condition (see 14:§2, esp. §2.1.1). The Conditional Future may also appear in a declarative clause with no preceding condition, where it seems to overlap with the Imperfective in a future sense. The Conditional Future does not appear in any kind of subordinate clause (adverbial, circumstantial, relative, or verbal complement). Futurity in such clauses is expressed by the Imperfective or the Subjunctive depending on clause type.

Below is a complete paradigm for the Conditional Future with the verb meaning ‘go’ with the ICP and the totality clitic, *-áy*. The first and second person clitics, which contract with the auxiliary *á*, are historically interesting in that they more closely resemble the subject agreement clitics of other Chadic language than do the other sets of Miya subject pronouns, which resemble the independent pronouns:

1 sg	n-á	bu-wn-áy	1 pl	y-á	buw-aam-áy
2 ms	f-á	buwa-f-áy	2 pl	n-á	buwa-n-ày
2 fs	m-á	b-ɣɣm-áy			
3 ms	á	b-uws-áy	3 pl	á	buwa-tlən-ay
3 fs	á	buwa-z-ày			

As noted, I do not fully understand the pragmatic or semantic conditions which call for the Conditional Future as opposed to one of the forms of the Imperfective in §§2.2.3.1-5. I therefore provide a number of examples from texts below in order to show this form in context:

Dùw, “Wíyá-y.”	Dùw, “Áa, n-á bíy buwyà.”
‘She said, “Jump down.”’	‘He said, “Oh, I’ll get a fracture.”’

Mən ma buw-um-úw. N-á buw-un kíya ndə náka n-aatfya yáwun.

‘I will not go on. I’m going to get that one (stick) at the elephant’s place.’

tə-kám n-à bəl-ɣɣm ¹⁹	‘come and I will tell you (fs)’
tsá-n aabíy n-à kíy-ɣɣm	‘give me your water and I’ll carry it for you’

¹⁹Note the L tone on *n-à*. In this and the next example, the first person form directly follows an Imperative. This may be an archaic Subjunctive form for first singular rather than a Conditional Future. The Subjunctive would be the expected form in this context, and in the same text as the next example, the following sentence occurs: *túway abíy-kəm mən kíy-ɣɣm* ‘bring your water and **let me** carry (it) for you’, with a Subjunctive (boldfaced) as expected.

fá ta hiyà gám səpəna mǎrdə, f-á taa gam dà-shíykèe ná zúw mayyúw
 you if dislike even tuwo millet you-Ft eat even given that that-of sorghum there isn't
 'even if you (ms) dislike millet tuwo, you will eat it given that there is none of sorghum'

kàafin tsáhiya yùw, à na-ta s-áy, f-á naya d-àa táfàs(a) aakaayi ghám-ùwsə
 'before the dawn, it (beer) will have cooked, you will see it boiling by itself'

sáa'iy naká, dùw, "Tòo, y-á zàr-uwsə tə jíy Malvè Dáy."
 'at that time, they said, "Well, we will designate him to be Chief of the Mountain."'

tíy jífə naa 'án ka a d'əngay(a) áandu w ...
 'he the husband of the woman will say ...'

kóo wàyya bazaniy éekì, á bay-tlà múku taka akán-hà jífə naazà
 'every young woman, one will take her that day to the house of her husband'

mùkwá na dàa bíy sá tál ká, á tsáa ngón múku taka
 'on the day that one drinks beer, one will give the name on that day'

mèn kwáa zàra-tlón ka, á buwa-tlèn də bíy tsəga-tlón-à
 'if/when I call them, they will come and sit down'

A construction *á ... gám* is allied with the Imperfective *g-àa* (§2.2.3.3). The two constructions seem to be equivalent in at least some environments, particularly in main clauses following concessive conditionals and in answers to "yes/no" questions. In the first example below, the statements in the two TAM's were given as having the same meaning. In the second example, a question-answer pair repeated from §2.2.3.3, the question uses the *g-àa* imperfective and the answer the *á ... gám* construction. The last two examples show an apparent equivalence in main clauses after concessive conditionals:

mèn g-aa bíy sən-ùwsə = n-á sən-uwsə gam 'I will know him'

Yes/No Q: tə g-aa zara-za wa? g- + Ipf 'will he call her?'
 he AUX-Ipf call-her Q (§2.2.3.3)

Answer: á zàra-za gam Conditional Future 'he will call her'
 Ft call-her Prt

tán g-àa tl-uwsə piy àa Kasham, tə g-àa d'oma ban-kwaana 'ənáa miy
 if AUX-Ipf arise-ICP quick PS Kasham he AUX-Ipf do good-bye with us
 'even if Kasham is leaving in a hurry, he will say good-bye to us'

mèn tán g-àa tlú-wun píy, n-á d'əmə gám bán-kwaana 'ənáa tíy
 I if AUX-Ipf arise-ICP quick I-Ft do Prt good-bye with him
 'even if I am leaving in a hurry, I will say good-bye to him'

2.2.6. Conditional kwáa. In Imperfective discourse (generic descriptions of events or events projected into the future), the Conditional *kwáa* introduces a clause which initiates a sequence of events or provides a temporal context for such events (see 14:§2.1.1 for discussion of functions and further examples).²⁰ I describe it here as a nominal TAM marker rather than a conjunction for two reasons: (1) it never co-occurs with any other TAM auxiliary or negation; (2) it always directly precedes the verb.²¹ If the clausal subject is a pronoun, the pronoun precedes *kwáa*; the subject pronouns are those used in the Subjunctive (§2.2.1) except that third person uses the independent pronouns, never the AUX *də*. If the subject is a noun, it is postposed within the clause.

The following paradigm illustrates the form of *kwáa* constructions. See 14:§2.1.1 for further discussion:

mèn kwáa zàra-tlón ka, á buwa-tlèn	'when I call them, they will come'
I when call-them PRM Ft come-ICP	
fāa kwáa zàra-tlón ka, á buwa-tlèn	'when you call them, they will come'
njə kwáa zàra-tlón ka, á buwa-tlèn	'when she calls them, they will come'
kwáa zàra-tlón aa Kàsham ká, á buwa-tlèn	'when Kasham calls them, they will come'
PS	

2.2.7. First person hortative: g-à-PRO. The TAM's used to express commands or exhortations vary with person, as follows:

Second person (singular or plural):	Imperative (§2.1.1)
Third person (singular or plural):	Hortative (§2.1.2)
First person plural:	Imperative (§2.1.1)
First person singular:	<i>g-à-naa</i>
First person plural (alternative):	<i>g-à-yaa</i>

²⁰In Perfective discourse (narratives involving series of individual events in the past), Miya uses a conjunction *dəga* (§2.2.3.4(1), 14:§3.1). Like *kwáa*, this conjunction can appear directly followed by a participle. Also like *kwáa*, *dəga* cannot freely be used with other TAM auxiliaries, nor can a *dəga* clause be negative. However, at least some speakers consistently use *dəga* together with the AUX *ée* (§2.2.3.4). *Dəga* therefore seems to be a sort of hybrid of AUX and conjunction. Miya also has two other conditional markers, *tá(n)* (14:§2.1.2), which introduces clauses stating conditions of the "normal" type, and *bá* (14:§2.4), which introduces counterfactual and hypothetical clauses. I consider these to be true conjunctions since their clauses admit a range of TAM's as well as negation. They do, however, share with *kwáa* the property of appearing between a subject pronoun (which sometimes incorporates the TAM marking function) and the verb.

²¹*Kwáa* most frequently introduces a verbal clause, but in its function as an introducer of temporal clauses, it can also head a phrase consisting of a temporal or word or phrase. All such phrases that I have found begin with *g-àa*, which appears to be the AUX *g-* (§2.2.3.3) contracted with either the preposition *áa* 'with' (11:§4.3) or with a prefix *da-* on the temporal noun (8:§5). It is *not* the Imperfective AUX *àa* (§2.2.3.3), which would invariably have low tone:

kwáa g-àa wasəm ká, ndyāan sɔba ka də piya kám-ay
 'when it is the rainy season, all the people return home'

kwáa g-àa camáza ka, dlèrambə də dɪngà ndəmák aagháma tɔvəm
 'when it is night, the dodo sets to visiting the women'

This appears to be a special, non-verbal function of *kwáa*, so I will not discuss it further here.

Note that the first person pronominal *n-* and *y-* are the same as the clitics used in the Conditional Future (§2.2.5) in contrast to the *m-* associated with first person, both singular (*mən*) and plural (*miy*), elsewhere. I cannot say whether the *ga-* AUX here is related to the AUX *g-* used with the Imperfective (§2.2.3.3); there is no obvious semantic connection.

gà-naa bu-wún	'let me go, I should go'
gà-naa kíya-f aakúw	'let me bring you some fire, I should bring you some fire'
gà-yaa baa-má	'let's go'
gà-yaa táw	'let's eat (it)'

2.2.8. Particles *bíy* and *jíy* with Negative Subjunctive and nominal TAM's. The particles *bíy* and *jíy* co-occur with the Negative Subjunctive (§3.3) and with all nominal TAM's except the Perfective with questioned or focused subjects. The particles fall between the AUX and the verb. I have been unable to determine what meaning, if any, they add. *Bíy* is by far the more frequent in my materials; *jíy* is used primarily by some speakers in narrative with the Subjunctive, though I have also found occasional examples with other TAM's. Following are examples with each TAM in a variety of syntactic contexts. I gloss *bíy* and *jíy* as "Prt". Below the examples are some random notes on distribution of these particles:

Negative Subjunctive

wíy ta jíy b-ùws ée tsəgaya tsəpər camàz-úw
someone NEG-Sjn Prt go-ICP to squat urination night-NEG
'let no one go to urinate at night'

t-àa-táa ləkaw mən tà bíy tsá-y(a) àakáy-tuw
he-Ipf-Ct fear I NEG-Sjn Prt give-him trouble-NEG
'he is afraid lest I give him trouble'

mən pùwa mír àadama fà ta bíy kər-úw
I hide money so-that you NEG-Sjn Prt steal-NEG
'I hid the money so that you wouldn't steal it'

Subjunctive²²

Jée b-uwsə də bíy mar-úwsə. 'Then he went and found him.'
then go-ICP Sjn Prt find-him

Làbee də baa-zá də jíy bəla səbə nıy aakən-tlən
Labe Sjn go-ICP Sjn Prt tell people of house-their
'Labe went and told the people living in the house'

naa buwa-na naa bíy bəta-tlən-ay '(then) you (pl) went and untied them'
you-Sjn go-ICP you-Sjn Prt untie-them-TOT

²²In Perfective discourse (see fn. 20), the particle *bíy* (*jíy* for some speakers) is frequent in main clauses, but does not appear in "cohesive" clauses introduced by *j-ée* or *dəga* (§2.2.3.4, 14:§§3.1, 3.2.2). On the other hand, in Imperfective discourse, *bíy* is common in clauses introduced by *kwáa* (§2.2.6) but rarely, if ever, occurs in main clauses.

mən bà zar-tlən ká, à buw-íy-tlən bíy tsəga-tlən-áy²³
I CfC call-them PRM Cf come-Cf-ICP Prt sit-ICP-Tot
'if I had called them, they would have come and sat down'

tà-kəm-ay maa jíy məkə nɔɔm 'go and stay (there)'
go-ICP-Tot you(m)-Sjn Prt sitting your (f)

Kàafin fàa bíy tsəga-f aaləm, mən aa kəla-fə kəlaw.
before you(m)-Sjn Prt sit-ICP in-hut I Ipf sweep for-you (m) sweeping
'Before you sit in the hut, I will sweep it out for you.'

Imperfective

tə g-àa bíy zàra-fə 'he will call you'
he AUX-Ipf Prt call-you (m)

náka tál ba na d-àa bíy 'ará ka²⁴ 'that beer that one will brew'
that beer that AUX də-Ipf Prt set aside PRM

Conditional Future

n-á biy buwyà 'I'll sustain a fracture'
I-Ft Prt break

Conditional *kwáa* (cf. fn. 22)

Kwáa biy tsáa ngón ka, də dzara-tlən aa səbə. Kwáa biy wasən-úwsə wutə
Cnl Prt give name PRM Sjn disperse-ICP PS people Cnl Prt last a year-ICP one
àa lay ká, də fàarà mbágəday ...
PS child PRM Sjn begin crawling

'When one has given the name, the people disperse. When the child has lived one year, it begins crawling ...'

2.2.9. The clitic *də*. Frequently appearing in the TAM system is a proclitic of the segmental form *də*. It proves elusive to pin down the function(s) of this proclitic (or these proclitics), inasmuch as several TAM's use such a proclitic, yet it is not an obligatory marker of any TAM.²⁵ We can identify three general environments for *də*:

²³The initial TAM in the main clause is the Counterfactual (§2.1.4). Note that the particle *bíy* initiates the second action of the sequence with no other overt AUX. Normally the Subjunctive would be the TAM used in the second and later clause in a sequence of events, which would make us expect to see the AUX *də*. I only have two examples of a sequence of events in a Counterfactual sentence, both of which share the syntax here. I do not know whether this is a special feature of this TAM.

²⁴See 10:§5.2 for discussion of relative clauses with a future sense. They have the following AUX structure:

BA ná d-ee VERB or BA ná d-àa bíy VERB

This is the only environment I know of where *bíy* is not optional.

²⁵Presumably Miya *də* is cognate with a proclitic *da* in Ngizim (Schuh 1971) and *də* in Bade (Schuh n.d.a). In these languages, the proclitics in question are associated exclusively with Subjunctive, they are limited to clauses with 3rd person subjects, and their appearance is obligatory in Subjunctive clauses with 3rd person subjects.

(1) *Focused Subject Perfective*: This function, described in §2.2.2, is distinct from the others. In addition to its specific function, the *də* used in the Focused Subject Perfective bears H tone, rather than the L of other functions, it is used with all persons, and its presence is obligatory regardless of the syntactic or textual environment of the clause where it appears (though as described in §2.2.2, there is an alternative Focused Subject Perfective which uses a proclitic, *áa*).

(2) *"Subjunctive" functions*: Under the rubric "Subjunctive" functions, I include the Subjunctive TAM per se (§2.2.1) and the Perfective in relative clauses (10:§5.2). The Subjunctive, in particular, has a variety of functions, but Subjunctive and Perfective intersect semantically in that they both express perfectivity/completedness in complementary environments, viz. the Subjunctive expresses completed actions in sequence in narrative (§2.2.1, 6:§5.2.4) and TAM's labeled "Perfective" express this function elsewhere ("Perfective" in §2.1.3, "Focused Subject Perfective" in §2.2.2, "Negative Perfective" in §3.1, "Perfective" in relative clauses in 10:§5.2). It is therefore not surprising that there would also be some formal intersection between these two TAM's in at least some of their occurrences. Such intersection comes up in the fact that Subjunctive and Perfective in relative clauses use identical sets of subject pronouns and, more directly related to the current point, in restrictions on the use of *də*. *Də* in these environments has the following two characteristics: (i) *də* is always preverbal, i.e. with the exception of *bíy/jíy* discussed in the preceding section, nothing may intervene between *də* and the verb; (ii) *də* may co-occur only with third person subjects. Thus, in the relative clause below, an auxiliary *áa* PRECEDES *də*, which itself immediately precedes the verb, and *də* in the second example, with a first person subject would render the sentence ungrammatical (see §2.2.1 for Subjunctive examples):

sóm b-áa də tsíy-úws aa Kàsham 'the man whom Kasham asked'
man who-AUX də ask-him PS Kasham

sóm b-áa mən (*də) tsíy-úwsə 'the man whom I asked'

(3) *"Imperfective" functions*: Semantically, the uses here share the feature that all represent incompleteness, whether continuing state, progressive action, or future action. In contrast to the "Subjunctive" uses, *də* is *never* directly followed by a verb, and it may co-occur with subjects of any person. In verbal clauses, the following word is always one of the auxiliaries *àa* or *éé*. "Imperfective" *də* may also appear in non-verbal clauses. I cannot say much about its function because its appearance is obligatory only in Imperfective relative clauses (see §2.2.3.1 for further discussion of *də* in Imperfective verbal clauses). It was rarely volunteered in elicitation in non-verbal clause types and its appearance even in texts in non-verbal clauses is sporadic. I found *də* in the following clause types (see 11:§§4.1.2, 4.1.4, 4.2, 4.4, 4.5 for further discussion and illustration):

EQUATIONAL (11:§4.1.2): tś də jíy malvó 'HE was chief'
(t-áalúw) mən də gyamuwsə '(he wants) me to be his friend'

NEG. EQUATIONAL (11:§4.1.4): mən də maa míy-dzəh-úw 'I am not a Miya man'

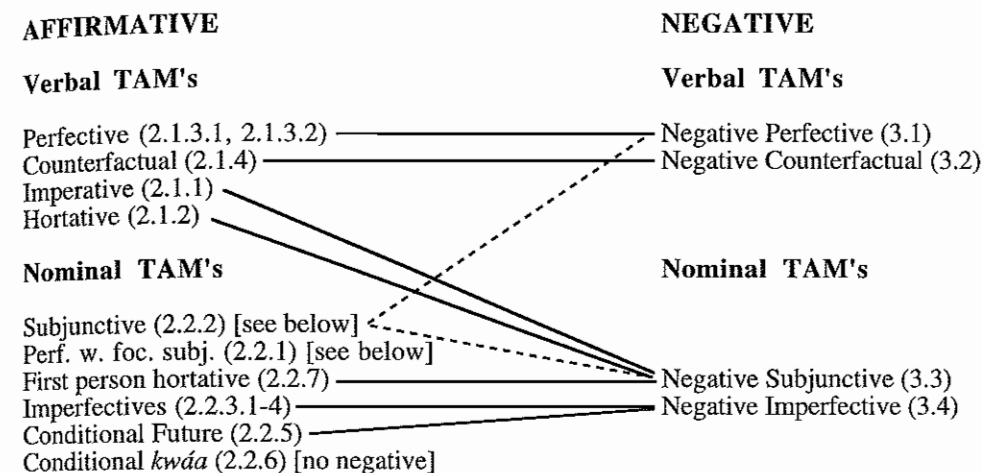
LOCATIVE (11:§4.5): tśn də kən d-aa mákáv 'they were here sitting'

EXISTENTIAL (11:§4.4): níywiy írinma də géeyí 'of our type there were some'

IMPERFECTIVE *àa* only (§2.2.3.1): tś d-àa tafa nà's 'he was hunting duikers'
NEG. IMPERFECTIVE *má* (§3.4): má dè má n-àa tsá-n-a? 'aren't going to give me any?'
IMPERF. *àa-taa* (§2.2.3.2): mən d-àa-táa cáam na Círòoma 'I was working as Ciroma'
IMPERF. REL. CL. (10:§6): sóm bá na mən d-ee tsiy-úwsə 'the man whom I will ask'

3. Negative TAM's

Correspondences of negative to affirmative TAM's are as follows:



Negative counterparts to the affirmative *Subjunctive* depend on the function of the *Subjunctive*. In subordinate clauses, where a negated *Subjunctive* has the English sense 'lest, that not', the Negative *Subjunctive* (§3.3) is used:

mən pùwa mír àadama tá biy kíy(a) aa sèba kír-uw
I hid money so that NEG Prt take PS those who theft-NEG
'I hid the money lest thieves steal it'

mən aa-táa làkaw mən ta biy təd(a) áa ghama dùwak-úw
I Ipf-Ct fear I NEG Prt fall from on horse-NEG
'I was afraid lest I fall from the horse'

In its use as a sequential, the *Subjunctive* does not take this form. I did not elicit any examples either of the type 'when they reached town, they took a bypass and *didn't* stop' (with a negated event as part of a sequence including affirmative clauses) or of the type 'he didn't come out, greet me, and invite me in' (with an entire sequence negated). I found the following two examples in texts:

də búwa-tlən də jíy d'ámá jíhájì bá yaakìy, tòo, Míya, à tá-tla ma-w
Sjn come-ICP Sjn Prt do era of war well Míya Pf conquer-it NEG-NEG
'they came and went through a period of war, well, Miya it was not conquered'

dò zaa-za kám-ày dō ma nayá-zà-w
Sjn enter-ICP house-Tot Sjn NEG see-her-NEG

'she entered the house and he didn't see her'

Both examples are from Perfective narratives. The first uses a Negative Perfective (§3.1). The second uses the Subjunctive third person marker with a negative which looks like the Imperfective (§3.4.). I suspect the former is a more conservative form, the latter an innovation created on analogy with the Subjunctive. In other West Chadic languages where I have looked at parallel cases, a negated form in a sequential context is expressed by the Negative Perfective or Negative Imperfective, whichever is appropriate to the context. The TAM used to express affirmative sequential actions (whether Subjunctive, as in Miya, or some other form) is a strictly affirmative TAM.

I also did not elicit negated examples of Focused Subject Perfective (§2.2.2) or Imperfective (§2.2.4), nor have I found any clear examples in texts. Again, judging from these forms in other Chadic languages, my guess is that if these forms can appear in negative contexts at all, the sentence in its affirmative form must be negated in its entirety ('it's not the case that it was John who stole the money') rather than the sentence having predicate negation ('JOHN didn't steal the money').

Negation in verbal clauses takes one of three forms ("VERB" = verb + any pronominal clitics; "... = nominal objects, locative, instrumental phrases, etc.):

- Negative Perfective & Counterfactual (Verbal TAM's): VERB *má* ... *ʒw*
- Negative Imperfective (Nominal TAM): *má* VERB ... *ʒw*
- Negative Subjunctive (Nominal TAM): *ta* VERB ... *ʒw*

All negation has in common a phrase final clitic *ʒw* (→ *-úw* following a consonant). Negative nominal TAM's bracket the entire verb phrase between the negative markers whereas negative verbal TAM's place negation after the verb. See §3.5 for details on tones.

3.1. Negative Perfective. The Negative Perfective has the following schema:

Subject/à Verb (+ clitics) *má* (nominal objects, adjuncts) *ʒw*

Note that the frame *má* ... *ʒw* which marks negation occupies the same predicate slots and is in complementary distribution with the Totality frame *s(úw)* ... *-áy* (7:§2) in the "neutral" affirmative Perfective (§2.1.3.1).

1 sg	<i>món</i>	<i>zàr má-w</i>	1 pl	<i>míy</i>	<i>zàr má-w</i>
2 ms	<i>fà</i>	<i>zàr má-w</i>	2 pl	<i>nà</i>	<i>zàr má-w</i>
2 fs	<i>mà</i>	<i>zàr má-w</i>			
3 m/f/pl	<i>à</i>	<i>zàr má-w</i>			

<i>à dzar-tlón ma-w</i>	'they didn't disperse'	(ICP clitic on verb)
<i>à zar-tla má-w</i>	'he didn't call her'	(DO clitic on verb)
<i>à tsa-yá ma-w</i>	'he didn't give (it) to him'	(IO clitic on verb)
<i>à tōka má Kasham-uw</i>	'he didn't accompany Kasham'	(nominal object)

món bà-wán m(a) àavuwáshim-uw 'I didn't go to the farm' (ICP and locative)
Ndūwya zar má Kasham-uw 'Nduya didn't call Kasham' (N subj. & obj.)

3.2. Negative Counterfactual. I have only one example of a negated Counterfactual, but this form demonstrates both that the negation schema is like that for Perfective (§3.1) and that the Counterfactual verb suffix *-iy* (§2.1.4) is retained under negation:

fà ba bəruw-wan má-w, dāa món mb-iy m(a) àacán nuwun-uw
you Cfc help-me NEG-NEG Cfc I finish-Cf NEG work my-NEG
'if you had not helped me, I would not have finished my work'

3.3. Negative Subjunctive. The schema for the Negative Subjunctive is as follows:

Subject *ta* Verb (+ clitics) (nominal objects, adjuncts) *ʒw*

The Negative Subjunctive is the negative counterpart of the Imperative (§2.1.1), the Hortative (§2.1.2), the First Person Hortative (§2.2.7), and the Subjunctive (§2.2.1) in the sense 'lest' (see §3, following table, for discussion and examples). Although Imperative and Hortative are verbal TAM's, Negative Subjunctive is a nominal TAM.

Negative Subjunctive differs from all other Miya negatives in having *ta* rather than *má* as the first element in the NEG ... *ʒw* frame. *Ta* bears high tone with third person subjects, low elsewhere. Negative *ta* resembles the Hortative auxiliary (§2.1.2) but is distinct from it in two ways: (1) the Hortative *ta* cannot appear with first or second person subjects; (2) Hortative *ta* has low tone with third person subjects (the only type of subjects permitted in this TAM) whereas Negative Subjunctive *ta* has high tone with third person subjects.

Segmentally the subject pronouns in Negative Subjunctive resemble those of the Perfective (§2.1.3.1), but in Negative Subjunctive, all first and second person subject pronouns have low tone (and second person plural is *hən*, not *nà*). In third person, pronominal subjects are expressed by the independent pronouns. An overt subject is virtually obligatory in the Negative Subjunctive, as it is in most nominal TAM's (11:§1.2.2).

'let ... not call, don't call!'

1 sg	<i>mən</i>	<i>ta zará-w</i> ²⁶	1 pl	<i>mìy</i>	<i>ta zará-w</i>
2 ms	<i>fà</i>	<i>ta zará-w</i>	2 pl	<i>hən</i>	<i>ta zará-w</i>
2 fs	<i>mà</i>	<i>ta zará-w</i>			
3 ms	<i>tíy</i>	<i>tá zàrà-w</i>	3 pl	<i>tlón</i>	<i>tá zàrà-w</i>
3 fs	<i>njó</i>	<i>tá zàrà-w</i>			

<i>fà ta tsərá-f-uw</i>	'don't stop!'	(ICP clitic)
<i>fà ta tók-ùws-úw</i>	'don't accompany him!'	(DO clitic)
<i>fà ta bəsa-yá-w</i>	'don't wash (it) for him!'	(IO clitic)

²⁶Segmentally, the verb form *zàrà-w* is identical to the participle in phrase final position in affirmative sentences. However, the final high tone reveals that the *-w* here is not the same as the one in the affirmative, since for this class of verbs, the tones would be all low (see, for example, the paradigm for the same verb in the Subjunctive at the end of §2.2.1).

fà ta rafá wəh-uw 'don't soak the clothes!' (nominal DO)

See §3, following table, for examples of Negative Subjunctive in the sense of 'lest'.

3.4. Negative Imperfective. The Negative Imperfective has the following schema:

Subject *má* Verb (+ clitics) (nominal objects, adjuncts) *´w*²⁷

This schema neutralizes the affirmative distinctions between simple Imperfective (§2.2.3.1), Imperfective with AUX *g-* (§2.2.3.3.), Imperfective with Totality *s- ... -áy* (§2.2.3.5), and Conditional Future (§2.2.5). The Continuative with *àa-táa* (§2.2.3.2) can be negated (see §3.4.1). An auxiliary *n-* sometimes appears in the Negative Imperfective (see §3.4.2).

Subject pronouns in the Negative Imperfective are segmentally identical to Imperfectives with AUX *g-* (§2.2.3.3) or Totality (§2.2.3.5), but in the negative, the pronouns always bear high tone:

'... will not call, ... am/is/are not calling'

1 sg	mán má zàrá-w	1 pl	míy má zàrá-w
2 ms	fáa má zàrá-w	2 pl	hón má zàrá-w
2 fs	máa má zàrá-w		
3 ms	tó má zàrá-w	3 pl	tlón má zàrá-w
3 fs	njó má zàrá-w		

tó má bàw-uws-úw	'he won't go out'	(ICP clitic)
món má tək-uws-úw	'I won't accompany him'	(DO clitic)
món má tək-a-yá-w	'I won't accompany (s.o.) for him'	(IO clitic)
tó má bóta zhaak-uw	'he won't untie the donkey'	(nominal object)

3.4.1. Negative Continuative. The Negative Continuative has the following schema:

Subject *m-áa-taa* Deverbal Noun/Participle *´w*

The negative *má* coalesces with the AUX *àa-táa*, with the high tone of the negative marker replacing the initial low tone of the AUX. The fact that Continuative sentences can themselves be negated without being neutralized to Negative Imperfective is one of the arguments advanced in §2.2.3.2 that *àa-táa* phrases are really prepositional phrases with verbal force rather than true verbal phrases.

tó m-áa-taa zhàrar-úw	(Deverbal Noun)	'he is not calling'
tlón m-áa-taa zhàrar-úw	(Deverbal Noun)	'they are not calling'
tó m-áa-taa zàrá-w	(Participle)	'he is not calling'

²⁷Note that the negative frame *má ... ´w* occupies the same structural position and is mutually exclusive with the Totality frame *s- ... -áy*. The relation between negation and Totality is thus the same as for the Perfective (§3.1), where both frames follow the verb.

3.4.2. AUX *n-àa* in Negative Imperfective. Occasionally in texts, I have found the following negative construction:

Subject *má n-àa* Predicate *´w*

Unlike the simple Negative Imperfective, which has no overt TAM marker, *n-* always co-occurs with the Imperfective *àa* as *n-àa*. This construction can use the subject marker *dà* (§2.2.9)—see third example.

míy má n-àa ts-ým àabíy nəná-w	'we won't give you (fs) any water today'
njó má n-àalu jífə naazà-w	'she doesn't love her husband'
má dè má n-àa tsá-n-aa?	'aren't you (fs) going to give me any?'

I never got the AUX *n-* in elicitation, and it appears too rarely in texts to speculate on what meaning, if any, it adds. It never appears in affirmative main clauses, though it may be the same morpheme which appears in future relative clauses (10:§5.2). It is not restricted to verbal clauses:

LOCATIVE:	á tardé 'an tuwsə má n-àakám-úw	'he will find that his wife is not at home'
"HAVE":	à 'iyká tə má n-aa 'àm-úw	'thereupon he no longer has a wife'

This same auxiliary may be part of the conditional conjunction *tá*, which appears as *tán* when the conditional clause is Imperfective (14:§2.1.2.1).

3.5. Tones of negative markers. Underlyingly, the tones of the negative markers are as follows:

H	H	L	H
ma ... w		ta ... w	

Má, being associated with H, normally bears H after L and downstepped H after H. The one exception is where *ma* follows a verb which imposes L tone, e.g. the "HL" POLYVERB class (4:§1.2.3.3).²⁸

H after L

à zar má zhaak-uw	'he called a donkey'
à bóta má zhaak-uw	'he untied a donkey'

²⁸The negative marker could follow only two types of words which impose a L tone: verbs of the "HL" POLYVERB class and indirect object clitics (4:§1.2.3.8). The only examples I have where negatives follow indirect object clitics are cases where nothing intervenes in the negative frame *má ... ´w*, e.g.

à zara-yá ma-w	'he didn't call for him'
----------------	--------------------------

Here, the coalesced negative complex bears high tone. Note that the tone of *má-w* is at the same pitch level as the preceding H on the clitic *-yá*. The tone here must thus be supplied by the non-downstepping H of *-úw* (3:§5) rather than the regular downstepping H of *má*.

Downstepped H after H

món má tək-uws-úw 'I will not accompany him'
 tə má bót-uws-úw 'he will not untie him'

L imposed by preceding word (see 4:§1.2.3.3.1 for underlying tones)

H H L H H L H L(H) H
 | | | | | | | | |
 a mar ma zhaakə w → a mar ma zhaakə-uw 'he didn't get a donkey'

The final clitic *-w* imposes H tone on the syllable of which it becomes a part (a diphthong if it attaches to a preceding vowel, *-úw* if the preceding word ends in a consonant). However, when *-w* is cliticized to a morpheme which imposes L tone, that L tone replaces the H associated with the negative clitic.²⁹

Imposition of H

L L L H L L L H
 | | | | | | | |
 fa ta bəsa w → fa ta bəsa-w 'don't wash'

H H L H H H L H
 | | | | | | | |
 tə ma təkə Kasham w → tə ma təkə Kasham-uw 'he will not accompany Kasham'

H H L H H H L H
 | | | | | | | |
 mən ma tək-uwsə w → mən ma tək-uws-uw 'I will not accompany him'

H H L H H H L H
 | | | | | | | |
 tə ma zar-aama w → tə ma zar-aama-w 'he will not call us'

Imposed L replaces H of clitic *-w*

H H L L L H H H L H L(H)
 | | | | | | | | | |
 tə ma zara-tlən w → tə ma zara-tlən-uw (tone on *tlən* raised by LOW RAISING, 3:§§3.1, 3.4)
 'he will not call for them'

H H L L L H H H L L L(H)
 | | | | | | | | | |
 tə ma zara-za w → tə ma zara-za-w 'he will not call for her'

²⁹The only morphemes which impose L and which can directly precede *-w* are pronominal clitics. See 4:§1.2.2 for clitics which show this behavior.

H H H L L H H H H L L(H)
 | | | | | | | | | |
 mən ma bala-ya w → mən ma bala-ya-w 'I will not chop for him'

Tə of Negative Subjunctive is always L in first and second persons, always H in third person. This seems to be a lexical fact about this morpheme rather than an alternation which can be accounted for in phonological terms.

4. Pronominal Clitics with Verbal and Nominal TAM's

One of the features distinguishing verbal from nominal TAM's is the forms of Intransitive Copy Pronoun (ICP) and Direct Object (DO) clitics. Indirect Object (IO) clitics are attached to an IO stem form of the verb (4:§1.1.2), which is the same for both verbal and nominal TAM's.

4.1. Intransitive Copy Pronouns (ICP). ICP's are pronominal clitics which reflect person, gender, and number features of the subjects of intransitive verbs (see 7:§4.2 for details on ICP usage). Verbal TAM's mark the ICP with a special set of clitics; nominal TAM's take the clitic set also used as DO clitics for nominal TAM's (§4.2 below) and as genitive pronouns (10:§3.1.1). The tonal class of the verb determines the tone of the pronoun. The H H class imposes high tone on the pronoun clitics, all others low tone.³⁰

Perfective illustrates the clitics used with verbal TAM's, Subjunctive (taken from the frame 'he wants that ...') those of nominal TAM's. 'Turn' illustrates the clitic tones for the H H class, 'bathe' other classes.

	Verbal TAM's (Perfective)		Nominal TAM's (Subjunctive)	
	H H Class 'X turned'	Other classes 'X bathed'	H H Class 'that X turn'	Other classes 'that X bathe'
1 sg	món ghədzə-wán say	món bəsə-wan sáy	mən ghədzə-wún	mən bəsə-wun
2 ms	fə ghədzə-kú say	fə bəsə-ku sáy	fəə ghədzə-fó	fəə bəsə-fə
2 fs	mà ghədzə-kón say	mà bəsə-kən sáy	màə ghədzə-ghón [ghədzəʔn] ³¹	màə bəsə-ghən [bəsəʔn] ³¹
3 ms	à ghədzə-tá say	à bəsə-ta sáy	də ghədzə-uwsó	də bəs-uwsə
3 fs	à ghədzə-tlá say	à bəsə-tla sáy	də ghədzə-zá	də bəsə-za
1 pl	míy ghədzə-má say	míy bəsə-má say	míy ghədzə-aamá	míy bəs-aama
2 pl	nà ghədzə-ká say	nà bəsə-ka sáy	nàə ghədzə-ná	nàə bəsə-ná
3 pl	à ghədzə-tlón say	à bəsə-tlən sáy	də ghədzə-tlón	də bəsə-tlón

4.2. Direct Objects (DO). Verbal TAM's have a distinct DO clitic set; nominal TAM's use the clitic set also used as ICP's for nominal TAM's and as genitive pronouns

³⁰The facts are somewhat more complex than this when taking into account clitics added after the pronominal clitics, such as the question clitic *-a* (12:§2.1.1) or the Totality clitic *-dy* (7:§2.1). Also, when preverbal clitics alter the verb stem tone, pronominal clitics are affected in some cases. Rather than try to describe all the variants explicitly, I simply list them all in the Appendix.

³¹The sequence /aghaC/ is realized phonetically as [ʔn]. See 2:§1.2.2.

(10:§3.1.1). The tonal class of the verb determines the tone of the pronoun. The H H class imposes high tone on the pronoun clitics, all others low tone (with the exception of 2nd and 3rd person plural in nominal TAM's which are always high—cf. also fn. 30). Illustrative TAM's are as for the ICP's in the preceding section.

Verbal TAM's (Perfective)			Nominal TAM's (Subjunctive)	
	H H Class 'he untied ...'	Other classes 'he called ...'	H H Class 'that he untie ...'	Other classes 'that he call ...'
1 sg	à bəta-wán say	à zar-wan sáy	də bətu-wún	də zar-uwn
2 ms	à bəta-fə say	à zar-fə sáy	də bəta-fá	də zara-fə
2 fs	à bəta-ghán say [bətʃɻn] ³¹	à zar-ghən sáy	də bəta-ghén [bətʃɻn] ³¹	də zara-ghən [zàɻɻn] ³¹
3 ms	à bəta-yá say	à zar-ya sáy	də bət-uwsó	də zar-uwsə
3 fs	à bəta-tlá say	à zar-tla sáy	də bəta-zá	də zara-za
1 pl	à bəta-má say	à zar-ma sáy	də bət-aamá	də zar-aama
2 pl	à bəta-ná say	à zar-na sáy	də bəta-ná	də zara-ná
3 pl	à bəta-tlón say	à zar-tlən sáy	də bəta-tlón	də zara-tlón

4.3. Indirect Objects (IO). As noted in the remarks at the beginning of §4, IO clitics are the same for all TAM's. The *-a-* suffix of the IO stem (4:§1.1.2) precedes the clitic. The tone on *-a-* is determined by the verb class. The first singular clitic *-n* forms a single syllable with *-a-*, the first plural clitic *-ma* copies the tone of *-a-*, and all other clitics take tone polar to *-a-*.

The clitics with the two tone patterns are illustrated in the Perfective with the L class verb 'call', which imposes low tone on *-a-*, and the H L class verb 'get', which imposes high tone.

	L Tone Class Verb 'he called the boy for ...'	H L Tone Class Verb 'he got money for ...'
1 sg	à zar-a-n súw vək-áy	à mar-á-n súw m̀r-áy
2 ms	à zar-a-fə suw vək-áy	à mar-á-fə súw m̀r-áy
2 fs	à zar-a-ghán suw vək-áy [zàɻɻn] ³¹	à mar-á-ghén súw m̀r-áy [màɻɻn] ³¹
3 ms	à zar-a-yá suw vək-áy	à mar-á-yà súw m̀r-áy
3 fs	à zar-a-tlá suw vək-áy	à mar-á-tlà súw m̀r-áy
1 pl	à zar-a-ma súw vək-áy	à mar-á-ma suw m̀r-áy
2 pl	à zar-a-ná suw vək-áy	à mar-á-nà súw m̀r-áy
3 pl	à zar-a-tlón suw vək-áy	à mar-á-tlən súw m̀r-áy

TENSE, ASPECT, MOOD (TAM) FUNCTIONS IN DISCOURSE

1. Discourse Structure

Chapters 4 and 5 focus on the forms of verbs and verbal tense, aspect, and mood (TAM) marking, with brief remarks on function. This chapter discusses the way discourse of two or more sentences is structured by the choice of TAM's. I organize the discussion of discourse in the following way. Numbers in parentheses are sections where I discuss the respective discourse functions:

GENERAL DISCOURSE FUNCTIONS (§2)	Perfectivity: (2.1)	• anteriority (2.1.1)	} • affirmative declarative	
		• state (2.1.2)		
	Imperfectivity: (2.2)	• durativity		• yes/no questions
		• habituality		• questioned or focused constituent
Hortativity (2.3)	• posteriority	• negative		
	Sequentiality (2.4)			
NARRATIVE DISCOURSE (§3)	Perfective (3.1)			
	Imperfective (3.1)			
	Hortative (3.2)			
	Descriptive (3.3)			

By GENERAL DISCOURSE FUNCTIONS, I mean those which are necessary both in give-and-take conversational discourse and in narration. The categories listed here are exhaustive for the types of distinctions Miya can make, and although one could imagine other discourse functions, e.g. "hearsay" vs. "direct observation", those listed here seem to be the major universal discourse functions. The four parameters on the right are not TAM discourse functions per se, but they have effects on choice of TAM forms and must therefore be considered when discussing the TAM functions, e.g. different Miya TAM forms would be needed to express Anterior Perfectivity depending on whether the discourse event were a statement or question or whether the subject were focused, the object were focused, or no constituent received special focus.

The general discourse functions apply within NARRATIVE DISCOURSE, but Narrative Discourse has additional structural properties, particularly in what Longacre (1990) calls "cohesion". Narrative Discourse, by definition, comprises a series of connected events. A minimal narrative would be a sequence of two events, e.g. 'he entered the room and sat down', 'I'll go and tell her', 'put some water in the pot and heat it', but the distinguishing feature of "narrative" as used here is that it includes frequent interpolation of "cohesive" clauses, typically introduced by something translatable as 'when', which either recapitulates an immediately preceding event or interpolates an event assumed by the preceding context, as in the case of the italicized clauses in the following examples:

- ... he climbed the tree. *When he had climbed the tree*, he looked around.
 ... we will begin playing at 3:00. *When the game is finished*, we will have a drink.

2. General Discourse Functions

2.1. Perfectivity. As in many African languages, Miya uses a single TAM to express *anteriority* (typically = past tense) for active verbs and existence in a *state* for stative verbs. Comrie's (1976:12) definition of Perfective as denoting "a situation viewed in its entirety, without regard to internal temporal constituency" is appropriate to both these functions. This is clear in the case of active verbs, where Perfective indicates action viewed as completed. In the case of stative verbs, which refer to a situation continuing over time, Comrie (1976:48ff.) notes that stative verbs represent a situation with a single "phase" as opposed to active verbs, which go through changing phases when extended over time.

2.1.1. Completed events (anteriority). The canonical use of active verbs in the Perfective is to refer to completed events in the past, e.g.

- À ghar-tla sáy. (Pf with Tot, 5:§2.1.3.1, 7:§2)
 'She has grown old.' or 'She grew old.'
- Sèb(a) áa dè káfa Míya, à buwa-tlən áa gabàr. (Pf without Tot)
 'The people who founded Miya, *they came* from the east.'
- Món bà-wán m(a) àavuwáshim-uw. (Neg Pf, 5:§3.1)
 'I didn't go to the farm.'
- Máa faarà-tlən à? (Pf with Q/F subject, 5:§2.2.2)
 'What happened?'
- Q: Fà tla-kú suw ndà? (yes/no question)
 A: Hòo, món tlà-wán suw. (response)
 Q: "Good morning." (lit. 'Have you arisen?')
 A: "Good morning." (lit. 'Yes, I have arisen.')

In the absence of a context to the contrary, the time of reference is assumed to be the time of speaking, as in the examples above. Perfective in such cases may be translated by English past or present perfect. If the context is other than the time of speaking, the

Perfective has the sense of a past tense relative to the time of reference. The English translation will be pluperfect if the time of reference is past and future perfect if the time of reference is future.

Pluperfect translation

... (i) dāga míy-úws aa Tashày, yāwwá, (ii) dè sáakèe píyaká Bəgaw hár yānzú. (1) Tòo Bəgaw ghar-ta sáy. Tòo sáa'innán d-àa káf(a) àa dódì-wásè (jáy Kārsha), dāyákèe (2) à tsa-ya wún, d-àa káfūw-s-áy cam aatyrà Máadaakíy zuwà t́yirà malvó garna. Tòo (iii) jée b-úwsə (iv) jée shiryee 'əfáa tlən, tòo (v) jée mbalá gwalə Bəgaw-áy, (3) à ghar-ta sáy, tòo (vi) də zaa Kārsha.

'... (i) upon Tashay's dying, yes, (ii) they again returned Bəgaw (to the throne) once more. Well (1) Bəgaw had grown old. Well at that time [Bəgaw] had been sending his son-in-law (he was Karsha), since (2) he [Bəgaw] had given him [Karsha] his daughter, he had been sending him to Madaki to the place of the paramount chief. Well (iii) he went, and (iv) he arranged things with them [the paramount chief & Co.], and (v) they stripped the chieftancy from Bəgaw, (3) he had grown old, and (vi) they enthroned Karsha.'

This passage comes from a narrative about the history of Miya. The temporal sequential events of the passage are (i) Chief Tashay died, (ii) Bəgaw was reenthroned (after having earlier been deposed), (iii) Bəgaw's son-in-law, Karsha, went to Madaki (the District headquarters), (iv) he colluded with the paramount chief there, (v) they stripped Bəgaw of the chieftancy, and (vi) Karsha became chief. Event (i) is in a cohesive clause (14:§3.1) and (ii-vi) are in the Subjunctive. On the other hand, the events in the clauses numbered (1-3) all took place anterior to the main event line (i-vi).¹ These clauses are in the Perfective, and a pluperfect translation is appropriate. Note that the clauses following the Perfective clauses (1, 2) are translated as pluperfect progressive ('had been sending'). These clauses are in the Imperfective (5:§2.2.3.1), showing ongoing events that may overlap with other events (§2.2 below). Imperfective is unmarked for anteriority, but the context makes the pluperfect progressive translation seem most appropriate here.

Future Perfect translation

PASSAGE 1

(i) Kwáa tsáa yùw ká, (ii) dè d́úf d́úwra d́óo ndùwulálàw-áy. (iii) Kàafin tsáhiya yùw, (1) à na-ta sáy, (iv) fá naya d-àa táfasa kaayi ghámùw-sə, àmmāa ákúw ma n-áacəbə-was-uw.

'(i) When the dawn comes, (ii) one pours (the fermenting beer) into pots. (iii) Before (the next) dawn, (1) it will have fermented, (iv) you will see that it is boiling by itself, but no fire is under it.'

¹Since Perfective can represent either completed action with active verbs or existing state with stative verbs (§2.2 below), an alternative interpretation for *Bəgaw ghar-ta sáy* 'Bəgaw had grown old' is that the sentence represents an enduring state, overlapping the events, i.e. 'Bəgaw was old'. Miya would not make a TAM distinction between these two interpretations, so either would be valid. The important point is that the Perfective here *cannot* represent part of the event sequence, a function reserved for the Subjunctive.

PASSAGE 2

... (i) kwáa d̄əŋga duw 'ám ma nà luw-fá ká-w, t̄o ... (ii) kwáa d̄óm(a) aacámazə ka, d̄òo naka lóokàciy ká (1) à b̄ala síw niy baa-zay akân nj̄s ma n(a) aalùw jifə naazà-w. (iii) Kwáa d̄óm(a) aacámazə ka, ... (iv) d̄ə guw(a) áa tlàhiy-ázà (v) d̄ə baa-z(a) áakanhá jifə baa nj̄a d-aalùw-asə.

'... (i) if it turns out that (your) wife doesn't love you, well ... (ii) when it is nighttime, at that time (1) *she will have told her family* that she does not love her husband. (iii) When it is nighttime, ... (iv) she will just get up and (v) go to the house of the man that she loves.'

PASSAGE 1 is from a procedural text on how to prepare beer; the overall interpretation could be habitual or future but not simple past. Clause (i), a cohesive clause (14:§2.1.1.1), and clause (ii), a Subjunctive clause, are part of the temporal sequence. Clause (iii), a nominalized 'before' phrase (14:§4), represents the next event in the sequence (the arrival of the next dawn). Clause (1), in italics, is in the Perfective. Though it is uttered after the event of (iii), it represents an event which took place anterior to (iii) and hence calls for a Future Perfect translation. Clause (iv) is in the Conditional Future (5:§2.2.5). This TAM seems to be used because (iv) represents a comment on the events of the text rather than being the actual next event of the beer brewing process, which would take Subjunctive.

PASSAGE 2 is also a "procedural" text of sorts. Clause (i) is a scene-setting conditional clause. Clauses (ii, iii) are cohesive clauses—actually the same clause, since it seems like the narrator began a thought, added a clarifying point, then returned to the first thought. Clauses (iv, v) are sequential clauses in the Subjunctive. The italicized clause (1) is in the Perfective. Context indicates that the event of informing the family took place before the sequence represented by clauses (ii-v), but since the whole passage is in habitual rather than purely past time mode, a future perfect translation is most appropriate.

One might argue that the TAM which I am calling "Perfective" is really just a "Past Tense", different from English past only in that it is past relative to a time of reference rather than an absolute past, where the time of reference would always be the present. I consider the (relative) past sense of the Perfective TAM with active verbs to be *derivative* on its fundamental sense of perfectivity. An interpretation of this TAM as being fundamentally a (relative) past tense would not account for its use with stative verbs, where the interpretation is translatable as present tense in the absence of context to the contrary.

2.1.2. States. Stativity is essentially a semantic rather than a lexical notion in Miya. Thus, most concepts which represent a continuing state or entry into a state which persists will be expressed in Miya by a verb in the Perfective. We can further divide such verbs into various groups (the letters in small caps indicate verb tone class—4:§1.2.3):

"True" stative verbs

?cam HH	'love'
?d̄əkay HH	'hear, feel'
d̄am HL	'be equal to'
?hiya L	'dislike'

Performative verbs

nja L	'refuse'
tsəma HH	'swear, take an oath'
yarda L	'agree'

kwa H	'lack'		Entry into a state
nay HL	'see'		
ra L	'exceed'	'əsə HL	'be satiated'
səla HH	'remain, be left over'	ʃal HH	'be(come) broken [rope]'
sən L	'know'	ʃuwya HL	'be(come) broken [stick]'
za L	'(intr.) be up to, be enough; (tr.) be enough, suffice'	ghar L	'grow old'
		kəmay HH	'spoil'
		la L	'get well'
		m̄ba L	'be finished, be all gone'
		miy L	'die'
		na L	'ripen; be done (cooking)'
		ndza L	'be(come) impoverished'
		rəvəzə L	'be(come) fat'
		rafə HH	'get wet'
		tsəfə HL	'dry up'
		wan L	'be(come) full'
		wasə L	'swell'

The difference between the "true" stative verbs on the one hand and the performatives and "entry into state" verbs on the other has to do with their interpretation in past context. True statives in past context would be interpreted as representing a continuing state without change of phase, i.e. *m̄n s̄ən-ya s̄ay* could mean 'I know him' (present context) or 'I knew him' (past context), but not 'I came to know him'.² Potentially, performatives and "entry into state" verbs could have such an interpretation in a past context, but the more likely interpretation would be entry into the state implied by the verb, e.g. *à miy-ta s̄ay* could mean 'he was dead', but the more likely interpretation would be 'he (had) died'. This can be seen in narrative, where the Subjunctive is used to signal discrete events in the narrative sequence (§3) but the Perfective signals a past tense background event with respect to the event line. In the first example below, 'die' is in the Subjunctive, being one event in the sequence. In the second example, 'know' is in the Perfective since it signals a state which now exists because of the preceding events.

T̄o, miy buwáa-mà miy j̄iy z̄aa-ma wásəm, dzàráhiy-wun 'əfáa gwàlfə ta wútlə b̄azam aa t̄ir vaat̄lə, *búwun d̄ə miyuw-s-áy*.

'Well, we came and entered upon the rainy season, my departure from the leadership of the youth (having taken place) five months (ago), (and then) *my father died*.'

D̄aga d̄óma mákyàkyi naatlón, d̄ə dzara-tlón-áy, s̄ən n-aaMángilà d̄ə buw-só hùws-áy. À 'iyká koowènéekì s̄ən síw nd̄arúu wiy-áy.

'After having a chat [after doing their chatting], they dispersed and the man from Mangila went home. Thereupon *each one knew there was someone else* (in the area).'

²I do not know how 'I came to know him' would be expressed in Miya. By analogy with Hausa, I would guess that one would probably say 'I entered into knowing him' or the like.

Another difference between true statives and “entry into state” verbs can be seen in a difference in interpretation of transitive verbs. Many of the “entry into state” roots can be used transitively or intransitively, e.g.

áwíhi kəmày-tlən sáy ‘the things *are/have* spoiled’
à kəmay s-áawíhi tuwn-ay ‘he *spoiled/has* spoiled my things’

kwàmbal búwyá-tà sáy ‘the stick *is/has* broken, the stick *broke*’
món búwyá suw kwàmbal-áy ‘I *broke/have* broken the stick’

The verb used intransitively may have a stative interpretation, translated by English ‘be’ plus a past participle. The transitive verb will always have an active interpretation (though, of course, the object will be in the state implied by the verb). With true stative transitive verbs, the interpretation will be a stative relation between subject and object:³

món rà-yá ràw ‘I *exceed* him’ (in some unspecified property)
mà zaa má-w ‘you (f) *aren’t up to it*, you *aren’t* (strong) *enough*’
hám bá ta zà-n sáy ‘the food *suffices* me, that *is enough* food for me

Note that depending on context, “entry into state” verbs can be translated into English as simple present (usually a form of ‘be’ plus a past participle or adjective), as simple past, or as perfect. This follows from the meaning of “perfectivity” given above: simple present represents a state, a situation without internal phrases; simple past represents an event viewed as completed at the time of reference, a situation without internal temporal constituency; perfect represents entry into a state which persists to the present, a combination of completion and stativity.

I noted that “stativity” is essentially a semantic rather than a lexical concept. We would therefore expect to be able to predict that a semantically stative verb would use the Perfective to represent a stative situation. In general this seems to be true. Note, however, that in the “true stative verb” column, the verbs ‘love’, ‘hear/feel’, and ‘dislike’ are preceded by question marks. In elicitation these verbs were given in the Perfective to represent stative concepts. However, in texts I found examples of these verbs in the Imperfective to represent an ongoing situation and in the Subjunctive, where they apparently represent entry into a state. I have no ready explanation for how these might differ in interpretation from the same verbs in the Perfective. In each of the following pairs, the first is an elicited example in the Perfective, the second is from a text:

cam ‘love’ món càn-tl(a) áacámaw ‘I *love* (Pf) her’ (with cognate complement *cámáw*)

ànduw njó má ’arúw-s-uw, dè cama wiy ‘she said she didn’t cherish him, she *loved* (Sjn) someone else’

³I do not have any clear cases of transitive performative verbs, such as ‘curse’, ‘condemn’, ‘exalt’, etc. These would behave like the transitive counterparts of “entry into state” verbs in having only an active meaning, i.e. ‘I curse your mother’s grave!’ does not signify a stative relation between me and your mother’s grave.

hiya ‘dislike’ món hiya-tla sáy ‘I *dislike* (Pf) her’
f-àa hiya-za híyàw ndyâan ’ənáa mèn ... ‘you *disliked* (Ipf) her as well as me ...’ (with cognate complement *hiyaw*)

Finally, the fact that stativity is usually expressed by a verb in the Perfective applies only if the concept is expressed by a “tensed” verb. Stative concepts can also be expressed by other categories, esp. adjectives (11:§4.2), stative sentences, and stative nouns with no related verb. Stative sentences use a deverbal noun rather than a finite verb, as in the first example below (see 11:§4.6 for description and more examples). The most frequently occurring stative noun without a related verb is *aalùw* ‘wanting, liking, loving’, illustrated in the second and third examples.

ndùwul áa-fàhíy ‘the pot is broken’
pot Pref.-breaking
njó ma n-aalùw jífə naazà-w ‘she doesn’t love her husband’
she NEG AUX-loving husband her-NEG
mèn s-áalùw də buw-s-áy ‘I want him to go’
I Tot-wanting Sjn go-ICP-Tot

2.2. Imperfectivity (durativity, habituality, posteriority). Whereas Perfectivity (§2.1) denotes completeness or stativity (a continuing situation without changes of phase), Imperfectivity denotes incompleteness or progressiveness (a continuing situation with changes of phase). Imperfectivity thus encompasses at least three temporal/aspectual parameters: *durative* (progressive, continuative), *habitual*, and *posterior* (future). Miya does not express these parameters with distinct TAM forms, though in the absence of context to the contrary, certain TAM’s combined with AUX’s (5:§§2.2.3, 5) or extensions (5:§§2.2.3.2-5) tend to be interpreted in particular ways.

The TAM’s which express Imperfectivity are the following: Imperfective (5:§§2.2.3.4), Conditional Future (5:§2.2.5), and Negative Imperfective (5:§3.4). In elicited isolated sentences, the following translation equivalents were the most frequent:

Durative (progressive, continuative): Imperfective + *àa-táa* (5:§2.2.3.2), with or without the Totality extension *s-...-áy* (7:§2).

t-àa-táa bàsa bósàw ‘he is bathing’ (*àa-táa* only)
mìy s-àa-táa baa-m-ày ‘we are going’ (with Totality ext.)
tò m-àa-táa zàrà-w ‘he is not calling’ (Negative)

Habitual: Imperfective with the AUX *g-* (5:§2.2.3.3).⁴

tè g-aa bàsa kábə ‘he washes gowns’
tlèn g-àa dzàra-tlèn ‘they disperse’

⁴I did very little direct elicitation using the Hausa Habitual (*-kan* form). For the few such elicited examples, Vaziya gave me sentences using the AUX *g-*, as illustrated here. In texts, the habitual sense is rendered more often than not with the simple Imperfective (5:§2.2.3.1), though the AUX *g-* occasionally appears. See further examples in the respective sections on these TAM’s.

Posteriority (future): Choice of TAM is dependent on pragmatic or discourse factors as follows:

"Neutral" declarative sentences: Imperfective with Totality (5:§2.2.3.5, 7:§2).

f-àa s-áa ghàra-f-áy 'you will grow old'
tè s-áa bála gháduw-ay 'he will chop wood'

Questioned or focused subject: Imperfective with Q/F subject (5:§2.2.4).

wàa jíy ghàruw-s-a? 'who will grow old?'
Kásham jíy ghàruw-sə 'KASHAM will grow old'

Questioned or focused non-subject: Imperfective alone (5:§2.2.3.1).

Ndikay nj-aa díya màa? 'what will Ndikay cook?'
Ndikay nj-aa díya sópən 'Ndikay will cook TUWO'
t-àa 'itlá 'itlāw 'he will COUGH'
(cognate complement for verb focus—cf. 7:§5)

*Yes/no questions; future expressing diffidence:*⁵ Imperfective with AUX g- (5:§2.2.3.3).

tè g-aa zara-za wa? 'will he call her?'
mèn g-aa bíy sənùw-sə 'I will know him'

Negative: Negative Imperfective (5:§3.4).

tó má bəsuw-s-úw 'he will not bathe'

Statements following conditions; statements expressing diffidence (cf. fn. 5): Conditional Future (5:§2.2.5).

kwáa buwa-tlən ká, á kīya kīya wíhi taatlən-áy 'if/when they come, they will take their things'
ná sənùw-sə gam 'I will know him'

The situations above exemplify the range of meanings for imperfectivity in isolated sentences. In non-subordinate clauses in connected texts, the Imperfective without the Totality extension or the AUX g- expresses the full semantic range of imperfectivity. The durative reading appears most often in circumstantial clauses indicating action overlapping other events (14:§8). Such clauses may also use the Continuative AUX *àa-táa* (5:§2.2.3.2) with no apparent difference in meaning. Imperfective alone may express simple habitual and also futurity. Whenever the Imperfective expresses futurity, it seems to

⁵I am diffident in proposing the characterization "statements expressing diffidence". There is no question that Conditional Future clauses containing the particle *gam* and clauses with the AUX g- are semantically allied and that they are associated with conditional and question contexts (see 5:§2.2.3.3, 2.2.5 for discussion). I have no way of showing that the two sentences below translated "I will know him" express diffidence. Vaziya volunteered them as equivalent in meaning, but he did *not* volunteer the Imperfective + Totality, which was always the form he volunteered to translate future with active verbs.

be a "habitual future", which can usually be translated as an English simple present (see examples below). "Single event futurity" is usually expressed by the Conditional Future (5:§2.2.5) in "conditional environments" (the Conditional Future can also express habitual futurity—see below) but by the Imperfective with the Totality extension elsewhere, as in most of the "Posteriority" examples immediately above. In connected discourse, the Imperfective often has the proclitic *də* in third person (5:§2.2.9).

Durative (circumstantial clauses)

The first and second examples below are from a historical narrative and a folktale respectively, viewed as events which took place in the past, whereas the third example is from a procedural text and is thus habitual and timeless. The different types of text show that the Imperfective expresses durativity regardless of temporal context. In the last example, the clause numbered (1) contains the Continuative *aəa-ta;ə*, whereas clause (3), with the same verb (and a cognate complement), has the simple Imperfective. See 14:§8 for further discussion.

Də ts(a) áa yùw tsúway də bawuw-sə, mùkuw-sə kídà t-aa tsiyáw, tòo, də mar(a) áabiy-ay.

'It dawned in the morning and he went out, and he spent three days digging (his three days he was digging), well, he found water.'

Də kiya tıvay d-àa báy-tl(a)-áy. 'He began to walk, (he was) carrying her.'

Dóo naka camázə ka, á sənà-tlən (1) d-àa-táa zàbə (2) d-àa sáa tál (3) d-àa zab(a) aazábə.

'During that night, they will pass the night (1) (they are) dancing, (2) (they are) drinking, (3) (they are) dancing away.'

Habitual

As in the examples with circumstantial clauses, the examples below show that the Imperfective may be used in a habitual sense irrespective of time. The first example refers to past time, the second to present (or is timeless). The Imperfective AUX's + verbs are italicized.

Írín sətórà n-áshiyí, wàataw jàafúw tlən d-àa d'əhónà benti. Təvan kuwá tlən d-àa d'əhónà sáakàr-káatòo. Bəzaniy d-àa d'əhónà tsətsaliy j-áabəf-a-zà. Bəndzahə kuwá t-àa d'əhónà peləra tar.

'The traditional types of clothes, that is, the men *would put on* a loincloth. As for the women, they *would put on* a hand-woven wrapper. A girl *would wear* (a string of) cauries on her front. As for a boy, he *would wear* a squirrel skin.'

Àmmáa miy aa d'ám(a) aacán naama 'ənáa təvam. Kwáa mbənuw-s aa wəshasham ká, wíy bá kám 'ənáa iyáaliy niywasə tlən g-àa buwáy vùwaa mootóo dórbitim bəhən vaatlə.

'But we *do* (farm) work together with the women. If the rainy season is good, a householder and his family *go* (to the farm) in 15 cars.'

Posterior or Future (in habitual sense)

Imperfectives translatable as futures appear in clauses (1) and (8) below. Potentially, the whole passage could be translated by English simple present, since it has a habitual sense. However, Vaziya, who provided both the Miya text and the Hausa translation, used the Hausa future, as opposed to the Hausa Habitual, which he used to translate the passages immediately above. The reason seems to be the conditional clause marked by *tán* at the beginning of the passage. Unlike a *kwáa* conditional, which is usually translatable as 'when' and assumes that the condition will be met, a *tán* clause expresses a condition which may not be met (14:§2.1.2.2). The sense of the passage thus seems to be that *if* the husband feels strong, the ensuing event *will* take place; however, unlike a true habitual passage, where the events always take place, the condition here may not be met, which would preclude the subsequent events taking place. The Imperfectives with future sense are in italics; other TAM's in the numbered clauses are in braces.

Tíy tan s-aa-tàa dákayá 'ánáa kàlpə ká, (1) *t-àa tluw-só* (2) [Sjn] dè buw-só saar(a) àakán-hà jifə naa 'an ká (3) [Sjn] dè d'əngə-y(a) áanduŋ (4) [Pf] à bə-t(a) ée kwiya 'án tuwsə. (5) [CFt] Tíy jifə naa 'án ka a d'əngə-y(a) áanduŋ, (6) [Pf] "Fà zaa má-w!" (7) [Sjn] Tòo aa 'iyká dè gwaa ndáa dāhiy(a) aa-táa pakà-z(a)-ay. (8) Tòo karshée-zà tlən aa baa-tlən ee tiyakó.

'If he (cuckolded husband) is feeling tough, (1) *he will get up* and (2) go over to the house of the wife's lover and (3) say to him that (4) he has come to take his wife back. (5) He, the wife's lover, will say to him, (6) "You're not up to it!" (7) Well, thereupon he (the husband) will just grab her hand. (8) The end of it is that *they will start fighting*.'

Of interest in this passage is the fact that clauses (2, 3, 7), which are in the Subjunctive, and clause (5), which is in the Conditional Future, can be translated as futures just as can clauses (1, 8), which are Imperfective. Why then did the narrator choose those particular TAM's?

The use of the Subjunctive in clauses (2, 3, 7) is straightforward—once clause (1) has established the TAM context, clauses (2, 3) express events in direct sequence to the event of clause (1), in conformity with the usual function of the Subjunctive to mark sequentiality (§2.4). The same holds for Subjunctive clause (7), which is the event following the event of Conditional Future clause (5).

More problematic is the difference in function of the Conditional Future from that of the Subjunctive on the one hand and from that of the Imperfective on the other, since all three seem possible in contexts of habituality and posteriority. Consider first the Subjunctive vs. the Conditional Future and the Imperfective. Clause (5), in the Conditional Future, and Clause (8), in the Imperfective, both appear to be part of the event sequence. Why are they not in the Subjunctive? The answer here seems to be a question of style. A narrator can choose occasionally to "restart" the sequence of events, perhaps to indicate shifts of focus in the narrative, even though there is no break in the actual sequence. This frequently appears to be the function of "cohesive" clauses using *kwáa* in imperfective narrative discourse or *dàgà* or *j-ée* in perfective narrative discourse (see §3.1 for these two types of narrative discourse and 14:§3.1, 3.2.2 for further grammatical discussion).

The Subjunctive and Conditional Future also seem to be stylistic options in clauses directly following *kwáa* cohesive clauses. In the example below, clauses (1) and (2) are in Conditional Future, as might be expected since both follow a "condition" (see 5:§2.2.5 for what constitutes a "condition"). However, clause (3), also following a *kwáa* conditional clause, is in the Subjunctive. The Subjunctive here is not unexpected because this clause forms part of a sequence, but so do the events in clauses (1) and (2). In fact, in texts, both the Conditional Future and the Subjunctive are common following *kwáa* clauses, the choice between them being a question of style with little or no functional difference.⁶

Kwáa d'óma lookàci bá tsaá ngón ka, t'òo, (1) [CFt] á 'ará tál daangə kidi. Mùkwá na d-àa bíy sá tál ka, (2) [CFt] á tsáa ngón múku taka. Kwáa biy tsáa ngón ka, (3) [Sjn] dè dzara-tlən aa sèbə.

'When it is time to give the name (to a newly born child), (1) she (mother of the woman who gave birth) will put three pots of beer (on the fire). On the day that they will drink the beer, (2) one gives the name on that day. When the name has been given, (3) the people disperse.'

The Imperfective may appear in a post-*kwáa* clause environment with a sequential meaning as well, though it is far less frequent than the other two. The example below illustrates this.⁷

Kwáa d'óma tlyádí ka, d-àa píya avùwágwàhiy-áy.

'When they had done the farming, *they would return* to town.'

We can now state with some certainty those functions of Imperfectivity that particular TAM's do *not* have.

Conditional Future never expresses durativity or events overlapping or occurring simultaneously with other events, as in circumstantial clauses. The Conditional Future also never appears in the negative, in sentences with questioned or focused constituents, or in subordinate clauses (adverbial clauses, relative clauses, complements to verbs). It is infrequent in statements without some sort of appended "condition", such as a conditional clause or topicalized phrase.

Imperfective is possible but infrequent in the "conditional" environments typical of the Conditional Future.

Continuative *aa-táa* is used only to express durativity, never habituality or posteriority.

⁶Vaziya wrote this passage out and provided his own Hausa translation. He translates clause (1) with a Hausa "zaa" Future, clause (2) with a nominalized phrase, and clause (3) with a Hausa Subjunctive. His translation is as follows: *Idan lokacin suna ya yi, to (1) za'a dama giya randa uku. Ranar da za'a sha giya (2) ranar bada suna, idan aka bada suna, (3) sai mutane su watse.*

⁷Vaziya translated the post-*kwáa* clause here as Hausa *sai* + Subjunctive (*In an yi noma, sai a dawo cikin gari*), the same Hausa construction which he used to translate the Subjunctive clause in the preceding example. The preceding example has a future or timeless context whereas the example below has a past context. However, this is not a factor in TAM choice following a *kwáa* clause—cf. the following almost identical example from another text referring to past time where the Subjunctive is found in the post-*kwáa* clause: *kwáa ts'era shim ká, dè píy(a) aavuwágwàhiy-áy* 'when they had cleared the farm, *they would return* to town'.

Subjunctive cannot express imperfectivity as an independent form, i.e. it appears in imperfective contexts only as the second or later event in a sequence where imperfectivity has been established by a Conditional Future or Imperfective. Since Subjunctive as part of a narrative can represent only events in sequence, it never appears with the second or later verb indicating durativity. (A group of simultaneous or overlapping durative events are all in the Imperfective—see examples above under the **Durative** and **Habitual** headings.)

In summary, the TAM par excellence for expressing imperfectivity is the IMPERFECTIVE, with nuances added by the Totality construction or the AUX's *àa-táa* or *g-*. The CONDITIONAL FUTURE has a more limited role in expressing imperfectivity, being restricted *syntactically* to affirmative main clauses without questioned or focused constituents, *functionally* to "conditional" context, and *semantically* to the non-durative parameters of imperfectivity. The SUBJUNCTIVE, when it appears in imperfective contexts, is restricted to expressing sequence and always derives any further imperfective parameters (posteriority, habituality) from the TAM's to which it is appended.

2.3. Hortativity. The following TAM's express Hortativity (direct commands and exhortations):

Affirmative direct:

- Second person addressee - Imperative (5:§2.1.1)
- Third person addressee - Hortative (5:§2.1.2)
- First person plural addressee - Imperative (5:§2.1.1)
- Any first person addressee - First person hortative (5:§2.2.7)

Affirmative indirect: All persons - Subjunctive (5:§2.2.1, 13:§6.3)⁸

Negative, direct or indirect: All persons - Negative Subjunctive (5:§3.3, 13:§6.3)

The functions and semantics of hortativity are straightforward. See the sections cited immediately above and also 11:§2 for examples.

2.4. Sequentiality. The Subjunctive (5:§2.4) expresses an event in direct sequence to a preceding event. The initial event may be in any TAM, including the Subjunctive itself.

Following Perfective

Á 'iyká Mâsángá [Pf] à miy-tá sáy, tòo, [Sjn] dè zaa léé nuwsə, Táshay.

'Thereupon Masanga [Pf] died, and, well, they [Sjn] installed his son, Tashay.'

Following Imperative

[Imp] Tà-ku [Sjn] faa jíy kiyaw [Sjn] fáa bùwá-fə [Sjn] maru-wun.

'[Imp] Go and [Sjn] get (the stick left behind) and [Sjn] come back and [Sjn] find me.'

[Imp] Tə-m(a)-ây [Sjn] mən bú-wun [Sjn] ɓala-fə wiy.

'[1st ps.Imp] Let's go and [Sjn] I'll come back and [Sjn] cut you another (stick).'

Following Imperfective

(see §2.2, example under **Posterior or Future (in habitual sense)**, clauses (2-3))

⁸The Hortative also seems to be acceptable, at least for third person (13:§6.3).

Following Focused Subject Imperfective

Yáddeení d-àa d'óma 'auree n-aashiyí, wàataw [FIp] baa vórkə jíy tluw-sə [Sjn] dè bíy mará baa wún.

'The way that one arranged a marriage traditionally, well [FIp] it was the father of the boy who would go out and [Sjn] find the father of the girl.'

Following Conditional Future

Lóokàci baa dùw móotà máyyúw, [CFt] á kíya ghama-tlən [Sjn] dè buwáy-yà kwáfa vúwagwàhi [Sjn] dè bíy pəsuw-s éeyí.

'When it was said there was no car, [CFt] they would take (the dead man) on their heads and [Sjn] carry him all the way to town and [Sjn] bury him there.'

The Subjunctive directly follows cohesive clauses in both perfective and imperfective narrative discourse (§3.1), the cohesive clause being the first event in the sequence. In imperfective narrative, the Conditional Future and Imperfective may follow a cohesive clause in a sequential sense with little, if any, difference in meaning from the Subjunctive (see discussion, end of §2.2 above). In perfective narrative, Subjunctive is the only TAM which may follow a cohesive clause. The cohesive clauses are italicized.

Imperfective narrative discourse

*Kwáa gəgəs(a) aatsátsaliy ká, tòo, kóowèni b(a) áanguw-eekì [Sjn] dè kíyà tuwsə [Sjn] dè baya d'ó malvó.*⁹

'When he has collected all the taxes, well, every ward head [Sjn] takes his and [Sjn] carries them to the chief.'

Perfective narrative discourse

Dàgée buw-s ée kíyaw, [Sjn] dè mará yáwun s-aa-táa sənáw-ay [Sjn] dè ghəmuw-s áaghàma-z(a)-ay [Sjn] dè rəna-z(a)-ay [Sjn] dè dawu-s-áy [Sjn] dè d'íya kàaká tùws-áy.

'When he had come to take (his stick), [Sjn] he found the elephant sleeping, [Sjn] he mounted on her, [Sjn] had coitus with her, [Sjn] got down, [Sjn] and followed his grandmother.'

These two examples contain more than one Subjunctive clause following the cohesive clause. This demonstrates that once the sequence has been established, it can be continued with a string of Subjunctive clauses.

I did not carefully investigate sequentiality in negative environments. In Hausa, the sequential verb forms cannot be used in negative environments. In Miya, the Subjunctive is at least an option in some negative environments. More research would be necessary for a full account. See 5:§3 for more discussion. The first example below has a Subjunctive

⁹This example in isolation makes it look as if Miya allows "backward pronominalization" into the sentence initial subordinate clause from the main clause. I doubt that this is true, though I did not check for it. In this particular example, the full referent for the subject of the 'when' clause, "ward heads", has already been mentioned in immediately preceding context.

following a negative condition. More interesting is the second example where the entire sequence is negated, with the discontinuous negative marker *má ... -úw* bracketing the sequence, but with a Subjunctive clause internal to the negation.

Táa d'ém *má* dàbáará àa naká ba shim-*uw*, t'oo, shím tuwsə [Sjn] dè láalacàyaa-z(a)-áy.
'If he does **not** come up with a plan, well his farm will be ruined.'

Tlón *má* kàna wíyahón dzəhə [Sjn] də zay-ya d'oo wutlámíy niytlən-*uw*.
'They would **not** buy a Hausa (slave) and [Sjn] put him among their children.'

See 14:§3 for further discussion of sequence marking.

3. Narrative Discourse

In my view, *linguistic structure* can be described (almost?) entirely at the sentence level. By knowing the morphosyntax of a sentence and its semantic interpretation expressed in truth functional terms, we can infer the type of context in which the sentence must occur. We do not need the context itself in order to understand the structure of the sentence. I am skeptical of attempts to provide structural linguistic definitions of discourse divisions such as "episode", "paragraph", or "a discourse" itself. There is no question that such divisions exist, but they belong to the realm of rhetoric and narrative style, not structural linguistics. Attempts at formalizing the structures of these divisions, providing linguistic definitions of "episode boundaries", etc. strike me as hopelessly vague and/or circular, and I would argue that it is futile to look for "rules" of episode or paragraph formation comparable to rules at the sentence level, which can specify with some precision the notion of *grammaticality*. A narrator may be *inept* in putting together a narrative, but it makes little sense to apply the term (*un*)*grammatical* to a paragraph, an episode, or a discourse in the way this term is applied to characterize structural properties of a sentence.

One must know something about narrative discourse to know that the first sentence below must be interpreted as a single event which took place in the past, whereas the second must be interpreted as a generic statement applicable to any time, even though there are no temporal adverbs in either example and the "tensed" main clauses in both examples have the same TAM, viz. Subjunctive (the main clauses in question are italicized):

Dàg-ée màkaw dè bəla kaaká t'úwsə duw, "Mən s-áa píy(a)-ay."
'When (time) had passed *he said to his grandmother*, "I will go back."

Kwáa yàrda ká dè bəlá-y(a) aanduw, "Mən g-áalùw-fə."
'When she agrees, *she will say to him*, "I love you."

But knowing about the discourse type does not imply that the surrounding discourse plays a part in describing the grammatical structure or the semantic interpretation of these sentences. Once one knows, from examining discourse, that *dàg-ée* 'when' introduces cohesive clauses in a context referring to single events in the past (14:§3.1) whereas *kwáa* 'when' introduces cohesive clauses in a context of generic descriptions (14:§2.1.1), a structural description of the language need make no further reference to context beyond the sentence level. Examining discourse is useful, if not indispensable, for *discovering* the

facts in the same way observing extralinguistic context may clarify word meanings, but it ultimately plays no role in *describing* linguistic structure.

Though discourse structure is not itself part of structural linguistics, one can nonetheless distinguish different types of discourse on the basis of the types of sentences which form their cores. I here distinguish four types of narrative discourse: *perfective*, *imperfective*, *hortative*, and *descriptive*. Section 3.1 discusses perfective and imperfective narratives together since the distinction is most easily understood through comparison. Sections 3.2 and 3.3 briefly discuss hortative and descriptive narrative respectively.

3.1. Perfective and imperfective narrative discourse. *Perfective* narrative discourse presents a series of events viewed as having taken place in the past and as unique, i.e. not habitual or generic. Perfective discourse is typical of stories and historical accounts.

Imperfective narrative discourse presents a sequence of events viewed as habitual or generic or as not yet accomplished. Imperfective narrative is typical of procedural discourse. Imperfective narrative in the context of past time will be understood as habitual, e.g. the description of customs no longer observed. In non-past temporal context, an imperfective narrative could refer either to generically occurring events or to events projected into the future. All subtypes of imperfective narrative are formally the same in Miya, context being the principal cue for interpretation.

Non-linguistic information normally distinguishes perfective from imperfective narrative, of course, but many of the linguistic indicators that would distinguish these types in other languages are absent in Miya, esp. differences in TAM's. Both types use the Perfective to show anteriority to the event line (§2.1.1), both types use the Imperfective in circumstantial clauses (§2.2), both types show the sequential event line with the Subjunctive (§2.4), and both types introduce quotes (direct or indirect) with the non-verbal, invariable quote marker *dúw/àandúw* (13:§6). One TAM difference is that imperfective discourse can use the Conditional Future or the Imperfective to express sequence as an apparent alternative to the Subjunctive in at least some contexts (cf. end of §2.4), whereas perfective discourse uses only the Subjunctive to express sequence. The use of the particles *bíy* and *jíy* (5:§2.2.8) is also somewhat different in the two. However, the major linguistic difference between perfective and imperfective discourse is in cohesive clauses: perfective discourse uses cohesive clauses introduced by *dàgàldàg-éeljée* (14:§3.1) whereas imperfective discourse uses cohesive clauses introduced by *kwáa* (14:§2.1.1).

Below are examples from the beginnings of a perfective and an imperfective discourse. These illustrate most of the features mentioned above. The cohesive clauses are italicized. See §§2.1-2 for further examples.

Perfective narrative discourse

- (1) Fárkoo taariyhíy na Míyà, səbə tsər dè fáarà¹⁰ búwáhiya-tlón
beginning history of Miya men two Sjn be first coming-ICP

¹⁰The discourse begins with Subjunctive as its first TAM. Imperfective discourses seem never to do this, which would constitute another linguistic difference between the two types. Perfective discourses may also have Perfective as the first TAM, which of course would not be possible in an imperfective discourse.

- (2) àmmáa baa dè búw-sə na farkoo jíy sòn n-aaMángilà
but one-that dè come-ICP of first F1p man of-Mangila
- (3) kàafən də bíy buw-sə d-áa àa sən n-aaGítuwà,
before Sjn Prt come-ICP Prt-pln PS man of-Gituwa
- (4) àmmáa wíy sòn m(a) aandəra wiy-úw
but one know NEG existence(?) other-NEG
- (5) Dàga d'am(a) éewíya, 'án ta sòn n-aaGítuwà dè baa-z(a) ée kùw(a)
when arrive one-day wife of man of-Gituwa Sjn go-ICP in order draw
aabíy àaMángilà,¹¹
water at Mangila
- (6) Náka sòn n-aaMángilà t́s d-àa-táa ndəm(a) ée d̀ona t́fwíy n-aatsákən.
that man of-Mangila he d̀-àa-Ct stroll in order seek animal of-bush
- (7) Àa 'iyká dè nayá taka 'an k-áy,
from there Sjn see that woman PRM-Tot
- (8) jée d'əngá-tlá d̀w, (9) "Máciy, tsár-kəm!"
then say to-her Qt you(fs) stop-ICP
- '(1) The beginning of the history of Miya, two men were the first to come,
(2) but the one who came first was the man of Mangila
(3) before the man of Gituwa came,
(4) but neither one knew about the other.
(5) *One day [when it reached one day],* the wife of the man of Gituwa went to draw water at Mangila.
(6) The man of Mangila was going about looking for wild animals.
(7) Thereupon he saw that woman,
(8) *and then he said to her, "You, wait a minute!"*'

Imperfective narrative discourse

- (1) Kwáa zaa àa vakra bá sárùw-sə ká,
when arrive PS boy that circumcising-him PRM
- (2) hám bá na d-àa d́oma dà-fárkoo,
thing that AUX d̀-1pf do at first
- (3) kóowéenà bá vórk-eekì dè kəna lémbi (4) dè 'ara ka.
every owner boy-every Sjn buy bull Sjn set aside PRM
- (5) Kwáa g-áa wasəm ká, ndyáan sóbə ka dè piy(a) aakám-ay,
when AUX-1pf rainy season PRM all people PRM Sjn return home-Tot
- (6) àmmáa Sárkin Duwtsèe jíy 'ara lookàciy bá piyakó.
but Sarkin Dutse F1p set time of returning
- (7) Kóowàenéekì kwáa piy(a) àakán ka, t̀do shíykèenán,
everyone when return home PRM well that's it

¹¹Miya town is nestled between two granite inselbergs, named Mangila and Gituwa after the two original founders of the town. Here, the narrator is using "Mangila" in reference to the inselberg, not one of the protagonists of the narrative. Mangila has a large pool, which served as the main water source for Miya in early times, when the town was on top of the inselberg as a protection from slave raiding.

- (8) dè pòla tál-ay d-àa zab(a) aazábə wutə-wútə hár mbahiyá-t̀ən.
Sjn mix beer-Tot d̀-1pf dance dancing one-one until finishing-them

- '(1) *When a boy arrives at the age of circumcision,*
(2) *the thing that one does first,*
(3) *everyone who has a boy buys a bull (4) and corrals it.*
(5) *When it is the rainy season,* all the people return home,
(6) *but it is the Sarkin Dutse who sets the time for returning.*
(7) *When everyone has returned home,* well OK,
(8) *they mix beer while (people) are dancing individually until everyone is there.'*

3.2. Hortative narrative discourse. I have no extended examples of hortative narrative discourse. The few brief examples I have found, which are from dialogue in texts, suggest that hortative narrative discourse is a subtype of imperfective discourse. Thus, although a hortative discourse would normally begin with an Imperative or Hortative TAM (depending on whether the discourse is directed to second or third person), the following examples suggest that the continuation of such a discourse would use *kwáa* imperfective cohesive clauses followed by Subjunctive clauses indicating sequentiality rather than continuing with Imperative or Hortative TAM's:

Maa kwáa b̄y-m ká, maa tere jífə n̄ym.
you (fs) when go-ICP PRM you-Sjn greet husband your

'When you go (home), greet your husband (on my behalf).'

... 'án tuwun gáyí. Kwáa g-áa tsuwày ká miy b̀wáa-maa 'əfáa njè
wife my there-is when AUX-1pf morning PRM we-Sjn come-ICP with her

maa nayá-zà də náy-íym.
you-Sjn see-her Sjn see-you

'... my wife is there. When dawn comes let us come with her and have you see her and have her see you.'

3.3. Descriptive narrative discourse. Descriptive narrative discourse is a description of a static scene. I mention it here for completeness. I have no examples, either from texts or elicited, of purely descriptive narrative. Clause types typical of descriptive discourse would be adjectival, existential, locative, stative, or presentative. All these clause types in Miya are non-verbal (11:§§4.1, 4.4, 4.5, 4.6, 4.7, respectively), so descriptive narrative would therefore involve little, if any, use of verbal TAM interaction. See the sections on each of the sentence types for elicited and textual examples.

A couple of remarks on the use of descriptive discourse in Miya are worth making. First, description of the type developed in European written narrative for establishing a mood, setting a scene, etc. is virtually non-existent in narrative in Miya or any other African language with whose narrative style I am familiar. This is undoubtedly a universal feature of societies where narrative literature is primarily oral, e.g. folk literature such as the tales collected by the brothers Grimm. Oral narrative, which by its nature, is dynamic, does not lend itself well to static scene description.

Second, where a narrative does contain descriptive passages, a typical technique is simply to list elements of the scene with no particular grammatical matrix (though usually

with a special list intonation). This terse style for creating a scene seems to correlate with the dynamic nature of oral narration in general.

Dàga tluw-só dè wiyaw, dè wiya tánjám d'ýr gwàlfə. Dàga wíya
 when arise-ICP Sjn jump down Sjn jump down id in chieftaincy when jump
 d'ýr gwàlfə də buw-só dəfə də zaa d'ó kábə tuws aatuw-sə, sèbə ká
 in chieftaincy Sjn go-ICP Prt Sjn put Prt gown his body-his people PRM
 wankən aakan-wàsə, tǎmakwiy, cūw.
 thus house-his sheep goats

'As he arose, he jumped down (from a tree), he jumped down *tanjám* into a chieftaincy. When he had jumped into the chieftaincy, he went and put a gown on his body, followers were like this were at his house, *sheep, goats*.'

Dàgée g-àa càmàzá, dè buwá-zà aa yawun dè jíy dàfəma kam bá
 when AUX-Ipf night Sjn come-ICP PS elephant Sjn Prt fix house of
 mbàanna, ndyâam kàman-wasə máyyúw, níy gàdoo, níy mǎnníy, níy jèerfy,
 beauty all like-its there-is-not &Co bed &Co stool &Co chair
 dè sháafèe ndyâam àa zìynáariya; kàbabáw tuwsə àkwaatiy dərbitim, táazà
 Sjn wipe all with gold gowns his chest ten hers
 gam wánka, níy shinkáafa, níy zùw, yàwun də baa-z(a) áatsàkəm-áy.
 indeed thus &Co rice &Co sorghum elephant Sjn go-ICP bush-Tot

'When it was night, the elephant came and fixed up a beautiful house without equal, *beds, stools, chairs*, and she plated them all with gold; and his (the bridegroom's) gowns (there were) ten chests, and hers (the bride's) likewise, (*there were foods like rice (and) sorghum*, and the elephant went off to the bush.'

Chapter 7

VERBAL EXTENSIONS AND VERB DERIVATION

1. Verbal Extensions: Does Miya Have Any?

Many Chadic languages have derivational processes and/or particles associated with verbs which are generally referred to as "verbal extensions". Verbal extensions add dimensions of meaning to a verb such as direction, location, extent, etc. of action. Miya is unusual, at least among its closest linguistic relatives, in having no forms that can be called true verbal "extensions". Particularly notable is the absence of a *ventive* stem or *Distanzstamm*, such as Hausa Grade VI marked by an *-oo* termination, e.g. *sayoo* 'buy (and bring)' vs. underived *sàyaa* 'buy'. The ventive is otherwise widespread in West Chadic and indicates that the action began at a distance with effect on or toward a place of reference, usually the place of speaking. The only related verb pairs showing this distinction in Miya are *bà* 'go' and *bé* 'come' and their transitive counterparts *báy* 'take (away)' and *bùway* 'bring' (see §4.1.1).

Another widespread extension is the *totality* extension, exemplified by the *-ee* termination of Hausa Grade IV, e.g. *sayèe* 'buy (all of)'. Miya does have a form which shares some properties with the totality extensions of other languages, though the Miya Totality is not a derived form of the verb per se. This is discussed in §2.

Ubiquitous in Chadic languages are *pluractional* verbs, e.g. Hausa *sàssayàa* '(repeatedly) buy'. Pluractional verbs indicate repeated action, including a particular action done many times, an action done by many subjects, or an action done individually to many objects. Though not usually included among extensions, pluractionals have extension-like semantic properties, whence their inclusion in this chapter. Miya does have productive pluractional formation processes, discussed in §3.

Included among extensions in a number of languages is a *transitizer* and/or *causativizer*, such as Hausa "Grade V" *fitař* 'take out' from intransitive *fità* 'go out' and *sayař* 'sell' from *sàyaa* 'buy'. Miya has a suffix *-áy* which derives transitive verbs from a class of intransitives, discussed in §4.1.1. Miya cannot form so-called causative verbs from transitives. All such semantic pairs either use unrelated roots, e.g. *kàna* 'buy' vs. *mótsə* 'sell', or the same root adds an additional argument as an indirect object, e.g. *gyàgiya* 'learn; teach (= "learn to s.o.")'.

Finally, Miya has a productive process of using *cognate complements* with both transitive and intransitive verbs, discussed in §5. Use of cognate complements is *not* common in West Chadic languages, at least among those that I am familiar with. As in the case of pluractionals, cognate complements are not, strictly speaking, derivational extensions, but they have extension-like semantic properties.

2. Totality

The main language I used for elicitation and interpretation was Hausa. In languages with a clearly identifiable totality extension, e.g. Ngizim or Bolanci, Hausa pairs such as *cil/cinye* 'eat/eat up' or *saya/saye* 'buy/buy up' will consistently evoke correspondingly differentiated pairs in the language under investigation.¹ Elicitation through Hausa failed to evoke any such distinction in Miya. On the other hand, Miya does have a construction (or set of constructions) which seem to be semantically akin to the totality extension of other languages. For lack of a better terms, I will call this construction "Totality", abbreviated *Tot* throughout this grammar.

2.1. Forms and syntactic conditions. The Totality formatives are the following:

s(úw) ... *-áy*: used with verbs in the Perfective or Future; in the Perfective, the Totality markers follow the verb plus any clitics, and nominal objects fall between the two markers;² in the Future, the Totality markers encompass the entire verbal phrase, including the preverbal auxiliary; if a vowel follows *s(úw)*, it contracts with the vowel and imposes its high tone; otherwise it appears as *súw* and replaces the next tone with its floating low tone (cf. 3:§4)

s(úw): TAM environments are the same as for *s(úw)* ... *-áy*, but *s(úw)* alone is restricted to use with intransitive verbs

-áy: cliticized to the end of verbal phrases in TAM's other than those listed for *s(úw)* ... (*-áy*), esp. Imperative, Hortative, and Subjunctive; I also found occasional examples with the Imperfective

The Totality construction does *not* appear in the following environments:

- negative sentences³

¹This is not to say that the Hausa Grade IV, exemplified in the pairs just mentioned, and the totality extensions of other languages are semantically, functionally, or syntactically identical. They are not. The point is that these languages have a productive extension which can be used with a wide range of verbs to indicate action "well done", "done to completion", or the like, and which a single translation device can consistently elicit. One reviewer of the manuscript of this grammar took strong issue with my use of "Totality" to refer to this construction in Miya. I have retained the term, first because the Miya construction shares certain properties with totality extensions elsewhere (e.g. a sense of finality) and second because it shares with a number of languages the syntactic property of non-occurrence under negation (cf. Schuh 1972:27-29 for Ngizim). Calling the Miya construction "totality" should not create confusion for Chadic historical linguistics inasmuch as even in languages with unequivocal totality extensions, the forms are often not cognate and the types of morphological realization differ.

²Other nominal and prepositional phrases in the predicate generally fall after *-áy*. See the end of this section.

³I found one example in my entire corpus which seems to be a case of the Totality in a negative exhortation:

gáluw-dzàhə roo malvó àndúw ta pərùws -áy-uw
 slave begged chief saying Hrt execute Tot-NEG

'the slave beseeched the chief not to execute him'

The mutual exclusivity of Totality with negation is so consistently observed throughout my data that I am treating this single example as an unexplained exception.

- sentences with focused or questioned constituents
- yes/no questions (see 12:§1)

Note the following first volunteered versions of the respective sentence types (Totality is italicized):

"Neutral":	à tabəna <i>súw</i> Ndúwy-áy	'he abused Nduya'
Negative:	à tabəna má Ndúwyá-w	'he didn't abuse Nduya'
Questioned object:	à tabəna wēe?	'who did he abuse?'
Focused object:	à tabəna Ndúwyà	'he abused NDUYA'
Yes/No question:	tə g-aa zar-uwsə wa?	'will he call him?'
	(cf. tə s-áa zàr-uws-áy)	'he will call him'

Whereas the Totality construction appears freely and is very common in main clauses (including event-line clauses in narrative), it is much less common in subordinate clauses of most types, esp. relative clauses, conditional clauses, 'before' clauses, and complements to verbs whose clauses do not allow for free choice of TAM, e.g. complements to verbs such as 'want', 'cause', 'prevent', 'be fitting' (as opposed to verbs whose complements allow free TAM choice, such as 'know', 'think', verbs of speaking, or verbs of perception). Unlike negatives and sentences with focused or questioned constituents, exclusion of Totality from subordinate clauses does not seem to be *grammatically* conditioned, since it does occasionally appear there.

Following are examples of the Totality construction in each TAM with which it can co-occur. Totality markers are italicized:

Perfective

à njaa <i>s-áy</i>	'he refused'	(no overt objects or clitics)
à bəsə-ta <i>s-áy</i> /à bəsə-ta <i>súw</i>	'he bathed'	(intransitive with ICP ± <i>-áy</i>)
à tǎfó-wàn <i>s-áy</i>	'he shot me'	(object clitic)
à már <i>súw</i> mbərgw-áy	'he got a ram'	(object noun)
à bəs-ama <i>súw</i> kàb-áy	'he washed a gown for us'	(IO clitic and N-DO)

Imperfective with Future meaning

mən <i>s-áa</i> z-áy	'I will put (it) on'	(no overt objects or clitics)
nǎs <i>s-aa</i> ghàra-z-áy	'she will grow old'	(intransitive with ICP + <i>-áy</i>)
ácán <i>s-aa</i> bìy mbón-uwsə	'the work will be good'	(intransitive with ICP, no <i>-áy</i>)
mən <i>s-áa</i> tǎka-tlón-áy	'I will accompany them'	(object clitic)
tə <i>s-áa</i> bətá mǎf-áy	'he will untie the goat'	(object noun)

Imperative, Hortative

bòo-kw-áy	'go out!'	(ms intr. Imp)
dzàriy-k-áy	'scatter!'	(plural intr. Imp)
bàsiy-áy	'wash (it)!'	(plural tr. Imp, no overt DO)
tà bəsə-tl-áy	'she should bathe'	(intr. Hrt with ICP)
tà mǎtsó zhàak-áy	'he should sell the donkey'	(tr. Hrt. with N-DO)
mən áalùw də dzara-tlón-áy	'I want them to scatter'	(intr. Sjn with ICP)
t-áalùw faa bal-áy	'he wants you to chop'	(tr. Sjn, no overt DO)

dè kiya tív-ay dè kiya vèriy-áy 'she began walking (and) she began crying'
(sequential clauses from narrative: Sjn with N-DO)

My corpus contains very few examples of Totality used with Imperfective other than its use in Future meaning, illustrated above, or with Conditional Future. However, the fact that examples do exist shows that relative absence of Totality with these constructions must have a semantic and/or pragmatic explanation rather than this being a grammatical restriction. Only the enclitic -áy appears with these TAM's.

Imperfective with Durative meaning

dè kiya tív-ay d-àa báy-tl-ày 'he began walking and (he was) carrying her'

Conditional Future⁴

ánìykè k(a) á lée-wán lay-ay 'the medicine will cure me'
nákən a rətla rətla JaaI-áy 'this one will throw Jala down'

As noted at the beginning of §2.1, if a nominal object is present, -áy follows it. This is illustrated in a number of the examples above. I did not investigate the positioning of -áy in detail, but available examples suggest that it follows nominal objects and locative goals, but other adjunct phrases follow -áy. Such phrases include stationary locatives, instrumental phrases, and comitative phrases. In the examples, the Totality is italicized and the noun phrase whose positioning is of interest is boldfaced.

Locative goal:

míy zà-ma s-áakan-hà Róoy-ay 'we entered **Roya's house**'
dè kərma wútlómíy dè bay-tlən àakwal-áy 'they gather the children and take them to **the hut**'
dè dúfduwura d'óo ndùwulálàw-áy 'they pour it into the pots'

Instrument:

mén d'èhən síw tàabárm-ay àa káràfù 'I tied up the mat **with a palm-leaf rope**'

Comitative:

mén saabà s-áy 'ənáa Ndùwya 'I am familiar **with Nduya**'

2.2. Function and meaning of Totality. As I noted at the beginning of §2, using Hausa Grade IV, I was unable to elicit the Miya Totality construction with any consistency. Moreover, in some cases, verbs with or without the Totality markers were said to mean the same thing, at least in Hausa translation, e.g. Vaziya was willing to state that the following were equivalent:

bòo-ku = bòo-kw-ay 'go out!' (ms Imp)
bəsìy-má = bəsìy-m-áy 'let's wash (it)' (1st ps. Imp)
tà bəta-yá = tà bəta-y-áy 'he should untie him' (Hrt)

⁴Both the examples below have cognate complements to the verbs (§5). I do not know whether this has any relation to the use of the Totality in Conditional Future.

tà mətšó zhàakə = tà mətšó zhàak-áy 'he should sell the donkey' (Hrt)
t-áalùw fàa təkaw = t-áalùw fàa tək-áy 'he wants you (ms) to accompany' (Sjn)

Inspection of texts likewise provides no obvious clues as to what Totality contributes to meaning. However, consideration of directly elicited cases where the Totality (almost) always occurs and where it (almost) never occurs does suggest some hypotheses about its meaning, hypotheses which might guide a more detailed study of texts than I was able to conduct:

Always occurs: (1) In the Perfective with no expressed objects or with clitics only.
(2) With the Imperfective as a translation of Hausa *zaa* Future.

Never occurs: (1) In negative sentences.
(2) In sentences with questioned or focused constituents.
(3) In conditional clauses.

Rarely occurs: (1) In the Perfective with expressed nominal objects.
(2) In subordinate clauses with "dependent" TAM's.⁵

One can characterize this set of environments as marking (a) perfectivity combined with (b) what Hyman and Watters (1984) call "Auxiliary Focus". In the Perfective (without questioned or focused constituents), the Totality is actually part of the TAM marking, i.e. neutral Perfective sentences cannot occur without it. In the Imperfective, the Future meaning is perfective in the sense that it projects perfectivity at a time in the future. This is opposed to other imperfective TAM's, which either represent ongoing action or are vague, marking only imperfectivity with respect to the time of reference (typically the moment of speaking).

"Auxiliary Focus", following Hyman and Watters (1984), assumes that the parameter that I call "TAM" in this work can bear focus just as can other constituents. This concept accounts for the exclusion of Totality from negatives and sentences with focused or questioned constituents. In such sentences, focus is attracted to negation (itself a type of auxiliary) or to the focused or questioned constituent. (Note that the Totality can appear in yes/no questions, where the focus would typically be on the auxiliary.) The fact that Perfective sentences with overt nominal objects are normally volunteered without Totality correlates with the well-known fact that in discourse, nominal objects typically represent new information and thus tend to have pragmatic focus. This pragmatic *tendency* is in contrast to negation, overt constituent focus, or constituent interrogation ("WH-questions"), where the construction itself marks a constituent for focus and thus preempts other focus, i.e. Totality is grammatically excluded from the latter constructions, but it can co-occur with a non-focused nominal object (see examples in §2.1).⁶ Some support for

⁵Totality in subordinate clauses is not uncommon, but it does not appear with the consistency of the "always occurs" environments. It may be that subordinate clauses and other environments where choice of the Totality is relatively free, such as sequential clauses in narrative or imperatives, would be the best environments to look for contextual patterns which would clarify the function of the Totality.

⁶The remarks here would predict that in the Future with nominal direct objects, there would also be a preference to omit the Totality. This preference is not as strong for the Future as for the Perfective, though in eliciting examples to check for constituent order with both DO and IO present, I got examples such as the following, where the bare Imperfective was used to translate the Hausa future:

these observations emerges from texts. In narrative, clauses containing salient nominal direct objects (those referring to a concrete element or otherwise unpredictable element) do not seem to be marked with Totality, whereas Totality is fairly common with other types of nominal direct objects:

- (i) *jée kīya tívi dè buw-sá dè baa ndə tsár aa kəm-ásə* (no Totality in any clause)
 'he began walking, he went, (and) he pulled out a *tsaure* stem with his hand'
 (*tsaure* is a type of long, tough grass; the actor plans to use it as a weapon)
- (ii) *dè kīya tív-áy dè kīya vəriy-áy*
 'she began walking and she began crying'
- (iii) *báa dè raa kalpá wiy ka, tòo, dè bááy 'ám-áy*
 'the one who is stronger than the other, well, he gets the woman'

In (i), with no Totality marking in any clause, a new concrete referent (the *tsaure* grass) has been introduced in the last clause. In (ii), where both clauses have the Totality, the grammatical objects are the actions themselves ('walking', 'crying') but are stated as complements to the verb *kīy* 'begin'. In (iii), where the underlined clause is marked for Totality and contains a nominal object '*ám* 'woman', the object has been one of the main referents of the text (about men vying for a wife) and hence is known and is the predictable object of the verb. Lack of a salient object is not a sufficient condition for use of the Totality—many clauses with no such object also lack it (cf. the initial clauses of (i) and (ii), *kīya tívi(-áy)* 'begin walking', with identical verb phrases except for the Totality)—but I have found no clear cases where such an object is introduced in a clause also marked for Totality.

Totality viewed as a marker of Auxiliary Focus also correlates with its relative rarity in subordinate clauses where the auxiliary is dependent on the verb of the main clause. Except for relative clauses, such clauses all use the Subjunctive (13:§§2-3). The Subjunctive is also the TAM which marks consecutive event line clauses in narrative. In this function, Totality is common with the Subjunctive, but these clauses are at least semi-independent in that the TAM is not *grammatically* conditioned by the preceding clause. Relative clauses lack Auxiliary focus for the same reason that sentences with focused or questioned constituents do (Hyman and Watters 1984; Schachter 1971).

I have treated the three Totality variants (*súw' ...-áy*, *súw'*, *-áy*) as equivalent. Those using *súw'* are in syntactic complementary distribution with those using just *-áy*, so there is no way to investigate them as independent variables. There does seem to be some difference between *súw'* alone and *súw'* in combination with *-áy*. With transitive verbs the two always co-occur, but with intransitives, *súw'* alone is possible,⁷ e.g.

mèn aa tsáa mír Kasham 'I will give money to Kasham'

Vaziya never used the bare Imperfective to translate the Hausa Future in sentences with no overt object or just a clitic on the verb.

⁷There is one environment with intransitive verbs where it seems that *súw'* without *-áy* is obligatory, viz. when the subject is postposed. Compare *ghèruw vár s-ay = à vár s-aa ghèruw* 'the cow ran off' where the version with preverbal subject has *súw' + -áy*, but *-áy* is absent with postverbal subject. With transitive verbs, *-áy* is retained with postverbal subjects. See 11:§1.2.1.1.1 and following sections for discussion and examples.

- Q: *Fà tlá-ku sùw ndá?* 'Have you (ms) arisen?' (a standard greeting)
 A: *Hòo, mán tlà-wán suw.* 'Yes, I have arisen.'

à bəsə-ta s-áy 'he (already) bathed'
à bəsə-ta súw 'he bathed' (recent past)

In elicitation, the latter two were characterized (in English) by the glosses given here. Usually, Vaziya would accept either form, claiming they meant the same thing. I can shed no further light on the difference.

In conclusion, I should note that although I have been characterizing the Totality construction as part of the verbal system, it is not restricted to tensed verbal clauses. Both the *súw'* and the *súw' ...-áy* constructions are common in non-verbal sentences (see 11:§4 and subsections on various sentence types). Indeed, the Totality construction can be used with a noun alone or a nominalized construction to give the sense of "just", "nothing but", "final". A Hausa translation using *kèe nan* is often appropriate. See 14:§3.2.3 for further discussion.

Tòo aa 'iyká mìy bay áataa dáy mìy bíy zèn-áy. Kwáa tsəfà ká, súw dərak-áy.

'Well then we take it onto a rock, and we spread it out. When it is dry, *just grinding* ("then what we do is grind it").'

Tòo, s-áa kídá-tən jiy Gwàrama.

'Well, then there was *just* the third of them who was Gwarama.'

Súw kwàpa súwà! 'Just until tomorrow! (a standard leave-taking expression)

3. Pluractionals

Miya has productive processes for forming pluractional verbs indicating action done repeatedly, e.g. to several objects, by several subjects, or to one or more objects. The form of pluractionals depends on the structure of the root. All pluractionals belong to the *-a* final vowel class (4:§1.1.1). They belong to the tone class of the root from which they are derived. Illustrations are all in the Perfective with third person subject:

Ca roots: *Ca* → *CəCa*

Tone Cl.	Root		Pluractional	
L	za	'enter'	à zəza-ya ⁸ sáy	'he entered'
	pa	'collect'	à pəpa sáy	'he collected'

C₁əC₂(ə)/C₁əC₂a roots: *C₁əC₂(V)* → *C₁aC₁əC₂a*

HL	tsər	'stop'	à tsatsərə-ya ⁸ sáy	'he stopped'
	pər	'cut'	à papərə sáy	'he cut'

⁸The Intransitive Copy Pronoun (ICP) *-ya* has the form of the direct object clitic rather than the expected 3rd m.sg. ICP *-ta* (5:§§4.1-2). The expected form of the ICP does show up with some of the verbs below. I have no explanation for this.

	kwiya	'catch'	à kwakíyà sáy	'he caught'
HH	bata	'untie'	à bəbəta sáy	'he untied'
	'əma	'cut corn heads'	à 'a'əma sáy	'he cut corn heads'
L	tsəga	'sit down'	à tsatsəga-ya ⁸ sáy	'he sat down'
	zəna	'spread to dry'	à zazəna sáy	'he spread to dry'
	tiy	'beat'	à tatiya tátiyáw	'he beat' (cog. comp.)

C₁aC₂ roots:⁹ C₁aC₂ → C₁aaC₂a

HL	tlakə	'scrape'	à tláakà sáy	'he scraped'
HH	ɓal	'break (rope)'	zháw ɓàlala-tá ¹⁰ sáy	'the rope broke'
	dzar	'disperse'	səbə dzaara-ya ¹⁰ sáy	'the people dispersed'
	tlyadə	'hoe'	à tlyadə sáy	'he hoed'
L	gwatlə	'give a blow'	à gwaatlə-ya sáy	'he gave him blows'
	kafə	'send'	à kaafa sáy	'he sent'

C₁VC₂(ə)C₃(ə) roots: C₁VC₂(ə)C₃(ə) → C₁aC₂(ə)C₃a

HL	tsəryə	'step on'	à tsaryá say	'he stepped on'
	ɓuwɓyə	'break (stick)'	kwàmbal ɓóoyà-ta sáy	'the stick broke up'
	təkən	'beat (drum)'	à takəná say	'he beat (a drum)'
HH	dadəm	'repair'	à dadəma sáy	'he repaired'
L	kərmə	'scoop up'	à karma sáy	'he scooped up'
	ziyərə	'pass'	à zeera sáy	'they kept passing'

Note that for the final group, if the V in the first syllable is *a*, the only difference between the underived root and the pluractional is the final *-a*. Since the Ø/-*a* verb class distinction (4:§1.1.1) is neutralized in nominal TAM's (5:§1), presumably the distinction between underived verbs and pluractionals would be neutralized as well for verbs like 'repair'. I did not check this.

Lexicalized examples of all these patterns also exist, where the non-pluractional root is no longer in (common) use, as far as I could determine. The following are cited in root form with the tone class of the pluractional in parentheses. Note that for the second group it is not possible to tell what the final vowel class of the non-pluractional was.

⁹There are no *CaCa* roots. For the roots 'break (rope)' and 'disperse', Vaziya also offered the pluractional pattern C₁aC₂aC₂a, where the second consonant is doubled (cf. CəC roots, where the first consonant is doubled):

zháw ɓàlala-tá sáy	'the rope broke'
səbə dzarara-ya sáy	'the people dispersed'

I found no textual examples or lexicalized pluractionals with this pattern, and Vaziya gave the *CaCa* pattern for all other *CaC* verbs.

¹⁰The ICP's for 'break (rope)' and 'disperse' are a mystery (cf. fn. 8). For 'break (rope)', *-ta* would be the ICP expected for a masculine noun; *-ya* seen with 'disperse' is a singular form, yet the subject is plural. A possible explanation in the latter case is transfer from Hausa, where *jama'a* 'populace, people, the public' is grammatically singular.

zəza (HL)	'skin, flay'	from *za
gyagiya (L)	'learn, teach'	from *giy(a)
tatuwa (L)	'wipe out bowl with finger'	from *tuw(a)
zazəma (L)	'coax'	from *zəm(a)
byaara (L)	'fart'	from *byar
paara (HL)	'cry'	from *par
kwarta (L)	'brush away earth'	from *kurtə
wasəna (L)	'spend a year'	from *wusən
tabəna (L)	'abuse'	from *təbən

As noted in 2:§3.2, the maximum native verb consists of three moras, e.g. *kərmə* 'scoop up' (moras = ə-r-ə), *təkən* 'beat (drum)' (moras = ə-ə-n). Pluractional formation acts in such a way as to preserve this maximal structure. CV and CəC(V) roots, which have one or two moras respectively, can use the canonical Chadic structure of reduplication for pluractional formation (Newman 1990), because this will add only one mora, thus staying below the 3-mora maximum, e.g. *pa* → *pəpa* (1 → 2 moras), *tsəga* → *tsatsəga* (2 → 3 moras). This strategy should also work for *CaC(ə)* roots, and indeed, as noted in fn. 9, it is sometimes used as in *ɓal* → *ɓalala* (2 → 3 moras), but there is a preferred, more "compact" strategy of adding a mora to the first syllable, e.g. *tlyadə* → *tlyaadə* (2 → 3 moras). In the case of three-consonant roots, however, if the 3-mora maximum is to be retained, a reduplication strategy is not possible. The only possibility is therefore a change in the *identity* of moras rather than in the *number* of moras, e.g. *kərmə* → *karma* (3 moras in both forms).

I did not investigate the syntax or pragmatics of pluractionals in detail. They are not particularly common in texts, which is enough to show that semantic or pragmatic factors rather than syntactic factors govern their use. The examples below show that plurality of action is sufficient to warrant the use of pluractionals. This includes (i) multiple effects of an event on one subject, (ii) repeated actions by one actor on one or more objects, (iii) actions by several actors on one object, or (iv) actions by multiple actors on multiple objects:

- (i) kwàmbal ɓóoyà-ta sáy 'the stick broke up'
à zeera sáy 'they kept passing'

- (ii) mál làawa mángwàro 'I plucked mangoes'

... dáma baa-zà bíy babəla Dyanna

'... in order that she tell (all aspects of the story) to Dyanna'

- (iii) Kwáa gəgəs(a) aatsətsaliy ká ndyāan ka ...

'When they (ward heads) have collected all the taxes ...'

- (iv) Tòo, tìyka na babəla də níy b̀w-un ...

'Ok, go (pl. Imp) and tell my father and the others ...'

Wàataw áa dŷy(a) aavəna shin ka dè *bəbŷy(a)* àagír wan làmbatúw ...

'That is they would go along the edge of the field and *dig* holes like latrine pits (as traps for locusts) ...'

4. Transitivity and Intransitivity

4.1. Lexically "intransitive" and lexically "neutral" verbs. In terms of verb use with objects, verbs fall into two lexical classes: (1) lexically intransitive verbs, which require a suffix *-áy* if used in a transitive sense, and (2) all others. Used intransitively, most of the verbs in group (1) represent change of physical position initiated voluntarily by the subject. However, verbs must be marked lexically as belonging to this group since there are verbs which have this semantic characterization yet do not require the transitizer when used transitively, e.g. *tla* 'stand up (intr.)' or 'raise (tr.)', *ghədzə* 'turn (tr. or intr.)'. There are also a few verbs in group (1) which do not involve change of position and/or voluntary action on the part of the patient of the action, e.g. *la* 'get well, recover' with transitized counterpart *l-ay* 'cure, make well'.

4.1.1. Transiting suffix -ay. Following is a complete list of verbs from my materials which I know to require the transitizer in transitive usage; the items at the end of the list marked with a dagger do not add an Intransitive Copy Pronoun (4:§4.1) when used intransitively. Tone classes of the non-derived and derived verbs are in small capitals:

'əsə	H L	'be sated'	'əsay	H L	'feed'
bə/buw	H L	'come'	buway	H L	'bring'
ba	H	'go'	bay	H L	'take'
baw	L	'go out'	baway	H H	'take out'
da	L	'fall'	day	L	'make fall, "put"'
daw	L	'get down; lodge'	daway	H H?	'unload; lodge (guest)'
dzar	H H	'disperse'	dzaray	H H?	'distribute'
ghəma	H H	'climb, mount'	ghəmay	H H	'lift up, raise'

¹¹Tones of derived transitive verbs in *-ay* are problematic, and I was not able to investigate them in detail. A clear indicator of tone class with underived verbs is the gerund (see 4:§2.2.1), and the tone of gerunds was my main diagnostic for the tones of the derived verbs in the table below. As the table suggests, most transitized verbs in *-ay* belong to the H H class, regardless of the tone class of the base. As is the case with underived H H verbs, the gerunds for all H H transitized verbs, when cited in isolation, have L on the stem and H on the gerund suffix *-kə*, e.g. *bəwayakə* 'taking out', *zəyəkə* 'putting in'. In the table, for those with no question mark following "H H", no available evidence contradicts the H H categorization, or there is evidence in addition to the gerund form which affirms the H H categorization, e.g. *mən piyee-tlá say* 'I lay her down' with H on the pronoun *-tlá* as would be expected for H H verbs (4:§1.2.3.2). For those marked "H H?", other evidence casts doubt on the H H categorization, e.g. *mən gəmay-ya sáy* 'I intercepted him', with L on the pronoun *-yà*, as would be found with L tone class verbs (4:§1.2.3.1), or *à wunáy suw səpən-áy* 'she stirred the *tuwo*', with H on the second syllable of the verb (*wunáy*), as would be expected for H L class verbs (4:§1.2.3.3). I have no gerund for *piyay* 'return'—the H L categorization is based on an example *à piyee say* 'he returned (it)', with H on the second syllable of the verb (cf. the remark in preceding sentence). The gerunds of the remaining three H L verbs in the table are *búwáyakə* 'bringing', *báyakə* 'taking', and *wunáyakə* 'stirring'. It happens that both the tone patterns exhibited with these verbs exist for gerunds of H L verbs (see 4:§2.2.1). I have no gerund form or other unequivocal tonal evidence to determine the tone class of *puway* 'hide (tr.)'.

piya	H H	'lie down'	piyay	H H	'lay down'
puwa	L	'hide (intr.)'	puway	?	'hide (tr.)'
siya	L	'move a bit'	siyay	L	'hitch up child on back'
təra	L	'whisper, slander'	təray	H H?	'greet'
tla	H	'stand up'	tla/tlay ¹²	L	'raise'
tsəga	L	'sit down'	tsəgay	H H?	'seat; excrete (urine, feces)'
tsər	H L	'stop, stand still'	tsəray	H L	'bring to a stop'
za	L	'enter'	zay	H H	'put in'
†gəm	L	'meet up (with)'	gəmay	H H?	'intercept'
†ga	L	'lie in wait'	gay	H H	'wait for'
†la	L	'get well'	lay	H H?	'cure'
†piya	H H	'return (intr.)'	piyay	H L	'return (tr.)'
†wuna	L	'move (intr.)'	wunay	H L	'stir; sprain (limb)'

Two further verbs, *bəzay* H H 'be finished/finish' and *kəmay* H H 'be spoiled/spoil', may have originally been transitized forms, but if so, they are now lexicalized as verbs neutral for transitivity, e.g. intr. *ácám bəzay-tá say* 'the work is finished' (with ICP *-ta*), tr. *mən bəzay sáy* 'I finished (it)'.¹²

Examples comparing intransitive and transitive counterparts

à <i>za-tla sáy</i>	'she entered' (with ICP <i>-tla</i>)
à <i>zay súw ghəduw-áy</i>	'she put the wood in'
<i>mən</i> [məl] <i>làa sáy</i>	'I got well, I recovered'
<i>nəkən níyhə dəs lee-wán</i>	'it's this medicine which cured me'
<i>mən dōo-wan sáy</i>	'I got down; I stayed (as guest)' (with ICP <i>-wan</i>)
à <i>daway-wan sáy</i>	'they lodged me'
<i>bàakoo dzəhə à tsəga-ta sáy</i>	'the guest sat down'
<i>mən tsəgay baakoo dzəhə</i>	'I seated the guest'

Verbs with the suffix *-ay* behave like underived stems for the most part. Thus, they fall into tonal classes required for underived stems, they form gerunds (4:§2.2) with the suffix *-kə* (see examples in fn. 11), and they add *-a* to form indirect object stems (4:§1.1.2). Compare the verb 'take' (derived from *ba-* 'go') in sentences without indirect objects and with indirect objects:

Without IO	With IO
á <i>bày-tlən kap</i> 'he will take them all'	<i>mən bəya-tlən hambátaw</i> 'I took food to them'
t-àa <i>bay mír</i> 'he will take money'	<i>mən bəya bambátá bə'iy</i> 'I took food to the guests'

However, verbs with the suffix *-ay* differ in the following ways from underived verbs:

¹²The verb *tla(y)* 'raise' appears in my data in transitive use both with and without the *-ay* transitizing suffix. In elicitation, Vaziya volunteered only the gerund *tləhiy*, which is verbal noun for the verb without the transitizer and is identical to the verbal noun for the intransitive counterpart. Likewise, the gerund for *lay* 'cure' was given as *ləhiy*, and for *gay* 'wait for', the gerund *gəhiy* was given as an alternative to the expected *gəyakə*.

- they do not use a participle form (4:§2.1) ending in *-a* in nominal TAM's
- they use the direct object clitics (5:§4.2) rather than the genitive clitics, which would be used for direct objects in nominal TAM's¹³

Examples in nominal TAM's showing lack of participial *-a* and use of direct object clitics rather than genitive clitics:

Verbal TAM

món pìyée vər̀kə 'I lay the child down'
 món pìyee-yá say 'I lay him down'
 món pìyee-tlá say 'I lay her down'

Nominal TAM

mən aa píyee vər̀kə 'I will lay the child down'
 mən s-áa píyee-yà-y 'I will lay him down'
 mən s-áa píyee-tlá-y 'I will lay her down'

Examples from texts:

- (Fip) wùtlə bazam 'ənáa wùtlə tóvàm jíy buway zùw ká
 'it's the young men and young women who *bring* the sorghum'
- (Sjn) dè bíy ghəmay-yà dóm 'she *lifted him up* into a tree'
 (cf. dè bət-uwsə 'she *washed him*', with genitive clitic)
- (Sjn) dè bawee-tlá koowaa dè nayá-zà
 'he would *take her out* and everyone would *see her*'
 (baway 'take out' + DO clitic *-tla* vs. *nay* 'see' with participle *naya* + genitive clitic *-za*)

4.1.2. Verbs of "neutral" transitivity. Most verbs in Miya are neutral as to transitivity, i.e. depending on their overt or contextually understood argument structure, they will be interpreted as transitive or intransitive. Following are some examples of verbs which are neutral in this sense. Where the transitive and intransitive meanings would have different English translations, the transitive meaning is on the left side of the slash. As above, small capitals indicate tone class for completeness of data, though tone class plays no role in intransitive vs. transitive use:

bəsa	L	'wash/bathe'	kəmay	HH	'spoil/be spoiled'
bəzay	HH	'finish/be finished'	kaw	L	'fry (in oil)'
fa	L	'break, shatter'	mba	L	'finish/be finished'
fal	HH	'break (of rope, etc.)'	mbal	HL	'unhaft/be unhafted'
fiy	HL	'pierce/become pierced'	mbidla	HH	'melt'
fuwyə	HL	'break (of stick, etc.)'	mbyar	HL	'tear, rip'
dadəm	HH	'repair/be repaired'	puwa	L	'hide' ¹⁴

¹³As noted in 4:§1.2.3.7, when Miya borrows Hausa verbs ending in *-ee*, it interprets this final vowel as *-ayl* (*ayl* generally → [e] in preconsonantal position in Miya—2:§2.2.3). These borrowed Hausa verbs show the same morphological characteristics as derived *-ay* verbs in Miya. Thus, in the following sentence in the Focused Subject Imperfective (5:§2.2.4), a nominal TAM, the direct object clitic *-tla*, rather than the genitive clitic is the object of the verb *raarashayl* < Hausa *ràrrasàa* (→ *ràrràshee* before pronoun object): *náka jífə ká jíy ràarashée-tlá* 'it was that husband who would persuade her'.

¹⁴The verb *puwa* 'hide' has a transitized counterpart, *puway*, for at least some speakers (see above). *Vaziya* used only the underived form in both transitive and intransitive meanings.

dəm	HH	'do/be possible'	raβə	HH	'moisten/get wet'
díy	HH	'cook (in pot)'	tsiy	HL	'burn'
díy	HL	'follow/be followable'	va	L	'pour/spill'
gəla	L	'roast (before fire)'	wan	L	'fill/be full'
ghəɖza	HH	'turn'	wusə	L	'pinch off/chip'

Examples (most of the intransitives have an ICP—see §4.2 below):

mən və súw m̀ard-áy	'I poured out some millet'
ábíy və-ta sáy	'the water spilled'
mən b̀aa súw nd̀uwul-áy	'I broke the pot'
nd̀uwul b̀a-tá say	'the pot broke'
mən ẁan sáy	'I filled (it)'
nd̀uwul wan sáy	'the pot is full'
à mbyar-án suw k̀abə tuwun-áy	'he tore my gown on me'
k̀abə tuwun mbyár-tlá sáy	'my gown tore'
mən b̀əsə súw k̀abə tuwun-áy	'I washed my gown'
mən b̀əsə-wan súw	'I bathed'
mən aa díya nakən g̀arhə	'I will follow this road'
ǹakən g̀arhə gaa díy-úwsə	'this road is followable/usable'

4.2. Intransitive Copy Pronouns (ICP). Most intransitive verbs, including "neutral" verbs used intransitively (see examples immediately above), require an Intransitive Copy Pronoun (ICP), i.e. a pronominal clitic attached to the verb which copies the person, gender, and number features of the subject. In this section, I discuss the ways the ICP is used. See 5:§4.1 for a complete paradigm.

Verbs that take the ICP require its presence in all environments, including all TAM's, affirmative or negative, statement or question (ICP's are italicized):

Perfective:	nà za-ka sáy	'you (pl) entered'
Imperative:	tsóriy-k̀à	'stop!' (pl)
Imperfective:	njè s-áa b̀əsə-za-y	'she will bathe'
Negative TAM's:	à 'əsə-tà má-w	'he is not sated' (Pf negative)
	fà ta bawa-fít-w	'don't go out!' (ms Imp negative)
	tə má tsəg-uwsú-w	'he will not sit down' (Ipf negative)
Questions:	à dzar-tl̀ón ghajà?	'when did they disperse?' (Pf yes/no Q)
	wàa d́ó b̀aw-uws-a?	'who went out?' (FPf word Q)

The ICP would thus appear to be a simple mark of intransitivity, adding no additional meaning to the verb other than overtly showing the role of the grammatical subject.¹⁵

¹⁵At least one other Chadic language, Kanakuru, has obligatory ICP's with intransitive verbs (Newman 1974). However, in most Chadic languages, presence of the ICP is not syntactically conditioned, though the meaning that it adds to the sentence is not always obvious. In those languages where the ICP has semantic/pragmatic functions, it is precluded from some environments, notably negative sentences. See

However, the ICP is not a necessary mark of intransitivity, since there are intransitive verbs which do not take an ICP. Although verbs requiring the ICP comprise a sizable majority of intransitive verbs, I have not been able to discover any semantic, phonological, morphological, or syntactic way of predicting which verbs do take the ICP and which do not. Following are some major semantic categories of intransitive verbs with example sentences containing verbs that require an ICP on the left and verbs that do not take an ICP on the right:

Motion or other change of position

à ba-tlá say	'she went'	njó à vár say	'she ran'
à za-ta sáy	'he went in'	kwáa biy tǎvǎ ká ...	'if he travels ...'
mán tsəga-wan sáy	'I sat down'	món pèla sáy	'I jumped'
mùku da-tla sáy	'the sun set' ("fell")	tə s-áa taa dlədlər-áy	'he is trembling'
tsír-kù	'stop!' (ms)		
tə s-áa tl-uws-áy	'he will stand up'		

State or passage into a state

fàa s-áa ghàra-f-áy	'you (m) will grow old'	món làa sáy	'I have recovered'
à miy-ta sáy	'he died'	áwásə tsiy say	'the grass burned'
món nà-wan sáy	'I am tired'	à tsáfó sáy	'it dried up'
à rəvəzə-ta sáy	'he has become fat'		
tà 'əs-á-tlà-y	'she should become sated'		

Passage of time

à wasəna-ta sáy	'he spent a year'	à soo sáy	'he rested'
fà ta səná-fu-w	'don't spend the night!'	à makə sáy	'he spent a long time'

I found a few homophonous or polysemous pairs where one meaning uses the ICP and one does not:

à na-tlən sáy	'they are ripe'	à naa sáy	'it is done (cooked)'
à boo-ta sáy	'he went out'	zùw boo sáy	'the grain sprouted'
à piya-tlá say	'she lay down'	à piya sáy	'she returned'
mà za-kəm má-w	'you (f) didn't enter'	mà zaa má-w	'you (f) aren't (strong) enough'

The only general class of verbs where Miya never uses an ICP but whose members are treated as intransitives in some languages are verbs where the action of the verb itself produces some type of "object". These are such verbs as 'cry', 'shout', 'laugh', 'sneeze', 'belch', 'fart', 'dance', and sounds made by animals ('moo', 'bark', etc.).¹⁶ These verbs in Miya often take a cognate complement (§5), but they can occur without cognate complements (cf. first example below), and since cognate complements can co-occur with

Schuh (1972) for Ngizim, Schuh (n.d.) for Bolanci, and Frajzyngier (1977) for Pero and a more general discussion in Chadic.

¹⁶Some verbs in the right-hand columns of the groups above, such as 'tremble', might fall into this category, but it clearly does not encompass all those verbs.

intransitive verbs marked by ICP's (see examples in §5), the failure of these verbs as a group to take the ICP must be a semantic rather than a syntactic restriction. Following are a few examples:

dlərambə kwar sáy	'the dodo cried out'
t-àa 'itlá'itlǎw	'he is coughing'
à zabə s-áazab-ay	'he danced'
à byaara sáy = à byaara raɗaɗi	'he farted'

In view of the facts cited in §§4.1-2, it is evident that marking verbs for transitive or intransitive use cannot be predicted from semantic or syntactic properties of (in)transitivity per se. Rather, there are two partially overlapping properties for which roots must be lexically marked. One property is [+intransitive], i.e. inherent lexical intransitivity which specifies that a root must add the transitizing suffix -ay if used in a syntactic structure with two arguments. The other property is [-ICP]. This specifies that a verb in a syntactic structure with a single argument does not add an ICP. ICP addition in these structures is the more general phenomenon, so verbs used intransitively and not overtly marked [-ICP] will be marked [+ICP] by default. Note that since Miya allows Ø anaphora at both subject and object positions (11:§§1.2.2, 1.3.3), a structure is understood as having two arguments even where one or both are Ø in this sense.

5. Cognate Complements

5.1. Cognate complement form. A common Miya construction repeats a form of the verb as a complement to the main verb. The repeated form is usually the participle (4:§2.1), but those verbs which have a deverbal noun (4:§2.3) use the deverbal noun in the Perfective.¹⁷ All verbs seem to use the participle elsewhere. I am using the term "cognate complement" rather than the more familiar "cognate object" for similar constructions found in other languages. Two facts show that the cognate element is not an "object": (1) it may be used with intransitive verbs, including those marked with an ICP (§4.2); (2) it can co-occur with both pronominal and nominal direct objects. Following are examples of cognate complement constructions in a variety of TAM's and in the two environments just noted (the cognate complement is italicized):

Intransitive verbs (no ICP)

à zabə s-áazab-ay	'he danced'
Pf dance Tot-dancing(dv.n.)-Tot	
à təma s-áatəm-ay	'he sang'
món wùnay wúnàyáw	'I got a sprain'

¹⁷Although the choice of the deverbal noun rather than the participle seems to be conditioned lexically by the existence of a deverbal noun for the particular verb and by the choice of TAM, there is one syntactic correlate, viz. the verb + participle construction seems never to co-occur with the Totality construction (§2) whereas the verb + deverbal noun does (cf. the first example, 'he danced', below). Correlating with this restriction for the Perfective, note that the examples below translated as future are in the simple Imperfective (5:§2.2.3.1) rather than the Future using the Totality frame s-...-ay (5:§2.2.3.5), which would be the normal way to render Hausa Future. See §5.2 for further discussion related to these facts.

à 'icó 'icàw	'he sneezed'
soo sôw	'rest!' ("breathe!")
t-àa hamá hamàw	'he will yawn'
t-àa-táa gètla gètłáw	'he is belching'
t-àa-táa tóvâ tóvâw	'he is traveling'
átokaf aa-táa bakwá bakwàw	'the toad is hopping'

Intransitive verbs with ICP

t-àa bəs-uwsə bəsáw	'he will bathe'
mèn áalùw faa tsərá-fə tsəráw	'I want you (m) to stop'
tłiwiy aa-táa kàw-uwsə káwàw	'the meat is roasting'
t-àa-táa z-ùwsə záw	'he is entering'

Transitive verbs (no overt object)

à babəla bábəlaw	'they repeatedly spoke' (pluractional verb < bəla)
tłèn aa-táa zàra zaráw	'they are calling'
t-àa-táa kùna kunáw	'he is vomiting'
... màa dəra dər	'... you (f) should grind'

Transitive verbs with expressed object

món càn-tl(a) áacámaw	'I love her'
món rà-yá ràw	'I surpass/am greater than him'
zàr-ya zaráw	'call him!'
ániyhè ká a lee-wán lày-ay	'this medicine will cure me'
mèn aa wíy-azà wíyáw	'I will shout at her'
mèn áalùw də táfá-fə táfàw	'I want him to shoot you (m)'
njé kùwá dè hiya híyà jifə naaza	'she indeed disliked her husband'
nákən a rətlà rətlà Jaal-áy	'this one will throw down Jala'
Kásham d'ámá d'ámaa Jáalá kyaràti	'Kasham is as tall as Jala' ("... equals Jala height")
Anguna də gudza gudza tukusəm	'Anguna took aim at the hedgehog'

5.2. Functions of cognate complements. The presence of cognate complements is neither lexically nor syntactically conditioned: all the verbs illustrated above can occur without cognate complements, cognate complements may appear in all TAM's, and no clause types require cognate complements (though some clause types do exclude them—see below). We can identify the following archetypal uses of cognate complements:

(1) States expressing a relationship between two arguments typically use cognate complements. These include states such as 'love', 'dislike', 'surpass', and 'be equal', all illustrated in examples above.

(2) Verbs which are understood to have objects but where a definite object referent is either unexpressed or irrelevant sometimes use cognate complements, e.g.¹⁸

¹⁸In the transformational-generative grammar tradition, these have been called "object deletion" constructions. Typical examples in English would be 'we are eating', 'she sewed all afternoon', 'he steals for a living', etc. This term is a poor one since it implies that there is some underlying object to be

món ràw ráwaw	'I beseeched' (translates Hausa <i>na yi roko</i>)
à tsíy tsiyàw	'he asked' (translates Hausa <i>ya yi tambaya</i>)
(also ... màa dəra dər '... you (f) should grind' from above)	

More commonly, however, this meaning is expressed either by using a generic noun as object, e.g. 'I ate (food)', or by the verb 'do' plus the verbal noun:

món tàa súw səpən-áy	'I ate' ("I ate <i>tuwo</i> ")
à d'am aakyír	'he stole' ("he did stealing")
à d'am aatlyáđi	'he farmed, he hoed' ("he did farming")

(3) Verbs where the action of the verb itself produces an "object" often take cognate complements. 'Dance', 'sing', '(sustain) sprain', 'sneeze', 'yawn', 'belch', and possibly 'travel' and 'hop' at the beginning of §5.1 would be examples, as would 'cough' at the end of §4.2. Verbs of this group can appear without cognate complements, however (cf. 'belch', 'groan' below), and some verbs that are semantically allied to this group take specific objects which are not cognate to the verb ('fart', 'shit' below):

à gətla sáy	'he belched'
à 'adzəma sáy	'he groaned'
à byaara rađáđi	'he farted' ("he farted (verb) a fart (non-cog. noun)")
à d'aa súw wàđ-áy	'he shat' ("he shat (verb) shit (non-cog. noun)")

(4) In the Continuative, cognate complements are an alternative to the deverbal noun alone. See 5:§2.2.3.2 for more discussion and examples.

(5) Cognate complements are infrequent or *excluded* entirely from certain constructions:

- *Negative clauses*: cognate complements are extremely rare in negative clauses.¹⁹
- *Totality*: As noted in fn. 17, when the cognate complement is a participle (the overwhelmingly most frequent form), it may not cooccur in a clause with the Totality construction.
- *Questioned or focused phrases*: Cognate complements seem never to occur in clauses with questioned or focused noun phrases or prepositional phrases.²⁰

deleted. In Miya, as in other Chadic languages, there are constructions with real cases of unexpressed, but known objects, referred to in 11:§1.3.3 as \emptyset anaphora.

¹⁹The only example in my data is the following from a text:

Kàaka nùwun, à kəna-ya má kənáa-wu, kàaká tùwun má kwaya, à kəna-tla má gan kənáa-w.

'My grandfather, he was not bought (as a slave), nor my grandmother either, she was not bought.'

²⁰I have found no such examples in texts or elicited examples. I did not explicitly try to elicit such constructions, but I did find the following textual example of a relative clause containing the verb *ra* 'surpass' *without* a cognate complement. I elicited many examples of this verb in affirmative main clauses, where it always had a cognate complement:

mèn jíy baa dè ra-tlón aa wàshasham

'it was I who was older than them' ("...who surpassed them in years")

- *Relative clauses*: Cognate complements seem never to occur in relative clauses.²⁰

In §2.2, I suggest that the Totality construction represents Auxiliary focus. Part of the evidence that Totality is a type of focus is that it is mutually exclusive with negation (an operator which itself attracts focus) and with overtly questioned or focused noun phrases or prepositional phrases. Cognate complements are in complementary distribution with these latter two types of construction as well as with Totality. Working under the assumption that, pragmatically, a clause will normally accommodate only one focused element and noting the pattern of mutual exclusivity, it would appear that cognate complements represent some type of focus. Since, by definition, cognate complements reflect the verb, it seems reasonable to view cognate complement constructions as *verb focus*. Environments (1-3), where cognate complements are particularly favored, accord with this suggestion: in (1), the focus seems to be on the relationship rather than either of the arguments (unless, of course, one of those is itself syntactically focused); in (2-3), the action of the verb is patently in focus—these constructions are used precisely where no nominal object is overt; and in (4) the cognate complement is likewise mutually exclusive with a nominal object.

The circumstantial evidence is therefore strong that cognate complements represent verb focus. However, unlike focused noun phrases and prepositional phrases, where both elicitation through translation of Hausa sentences and the pragmatics of textual examples make the syntax and pragmatics of such constructions obvious (12:§2), this is not so obvious for verb focus, nor for auxiliary focus in the case of Totality. Hausa has no specific constructions which can be used consistently to elicit these construction types,²¹ and the limited amount of textual data along with limits on my abilities to interpret the available examples will require that the suggestions on the function of Totality and cognate complements remain in the realm of hypotheses.

²¹Hausa focuses verbs by using nominal object focus syntax, i.e. the verb is nominalized and fronted and the clausal verb becomes 'do' with the nominalized verb as its focused object, e.g. *tafiya ya yi* 'traveling (is what) he did'. Since Miya also has constructions with "do + action" syntax, elicitation through translating such Hausa sentences would almost surely elicit syntactically parallel Miya sentences, which would prove nothing one way or the other about the function of cognate complement constructions in Miya.

Chapter 8

PERSONAL PRONOUNS,
NOUNS, AND ADJECTIVES

1. Personal Pronouns

In addition to first, second, and third persons in singular and plural, Miya distinguishes masculine and feminine in second and third person singular. Unlike some languages of the West Chadic "B" group to which Miya belongs, Miya does not distinguish inclusive and exclusive first person plural.

1.1. Independent pronouns

	Singular		Plural
1	món	1	míy
2m	fíy [fʷí:]	2	hón
2f	mácə/máciy		
3m	tá/tíy	3	tlán
3f	njə/njíy		

These pronouns are used as isolated citation forms, as clausal topics, as subjects of non-verbal sentences where there is no auxiliary (11:§4), and as objects of true prepositions such as 'áná 'with' (11:§1.6), dáma 'for the sake of' (11:§1.12), or wán 'like'.

The alternatives separated by slashes seem to be equivalent. In elicitation, the 2nd and 3rd feminine forms were given with final -ə and the 3rd masculine with -iy, but I have found all the alternates in texts in comparable contexts—cf. the following examples, where the initial pronouns are all clausal topics:

<i>mácə, vá-n kway téfir!</i>	'you (f), pour me out some figs!'
<i>máciy, tsər-kəm!</i>	'you (f), stop!'
<i>tá kuma, jée tsiy-ùwsə duw...</i>	'as for him, he stopped and said ...'
<i>tíy kùwá, Màngíla, tá mà...</i>	'he indeed, Mangila, he was not...'
<i>njə kùwá, dà hiya híyà jifə naaza</i>	'as for her, she disliked her husband'
<i>njíy, máahìy ká nj-aa kənà dlərkiy</i>	'she, the mother, she buys a chicken'

1.2. Subject pronouns. Miya has several sets of pronouns which function as the subjects of the various sentence types. Some person forms are nearly identical from paradigm to paradigm, while others vary depending on the type of AUX they are fused with or other factors. Rather than try to extract a single underlying paradigm with rules to account for variations, I list all the occurring paradigms in full. In addition to the subject

pronouns below, the independent pronouns (§1.1) function as subjects of some kinds of non-verbal sentences (11:§4). See Chapter 5 for a full discussion of verbal TAM's.

	Perfective	Subjunctive	Negative Subjunctive	Focused Subject Imperf. (with no AUX)	Focused Subject Perf. I; Imperf. (with no AUX)	Focused Subject Perf. II	Imperfective with AUX	Conditional Future
1	món	mèn	mèn ta	mèn aa	mèn dó	mèn + AUX	ná	
2m	fà	fàa	fà "	fíy "	fàa "	fàa "	fá	
2f	mà	màa	mà "	màc "	màa "	maa "	má	
3m	(à)	Ø	dà	tíy tá	t "	tà "	(á)	
3f	(à)	(njó) dè	njó "	nj "	njà "	njə "	(á)	
1p	míy	mìy	mìy tà	mìy "	míy "	miy "	yá	
2p	nà	nàa	hèn "	hèn "	hèn "	hən "	ná	
3p	((tlón) à)	(tlón) dè	tlón tá	tlèn "	tlèn "	tlən "	(á)	

Perfective (5:§§2.1.3, 3.1): This paradigm is used for affirmative or negative Perfective sentences except where the subject is questioned or in focus. In 3rd person, the parenthesized *à* appears when there is no nominal subject directly preceding the verb. Singular 3rd persons never use an overt pronoun subject, but the 3rd plural *tlón* is optional in the absence of a nominal subject.

Subjunctive (5:§2.2.1): This paradigm, used for the various subjunctives, differs from the Perfective in tone and vowel lengths, but shares with the Perfective the presence of a non-pronominal marker in 3rd persons and a 2nd plural pronoun *n-*. Unlike the Perfective marker *à*, the Subjunctive marker *dè* appears even after nominal subjects. Third feminine singular and 3rd plural pronouns are optional when there is no nominal subject.

Negative Subjunctive, Focused Subject Perfectives, Imperfectives (5:§§2.2.2, 2.2.3, 3.3, 3.4): These all require an auxiliary element following the pronoun. The auxiliary *aa* in the "Focused Subject Perfective I; Imperfective (w. no AUX)" column bears low tone in the Imperfective but high tone in the Focused Subject Perfective I. Elsewhere in the Imperfective, there are several possible auxiliaries, some which condition all high tones on the pronouns, some all low (see 5:§§2.2.3, 3.4 for details). In the absence of nominal subjects, these TAM's nearly always have overt pronominal subjects, indicated by non-parenthesized pronouns in these columns. These third person pronominal subjects, as well as the 2nd plural *hən*, used with these TAM's are identical to the independent pronouns except for tone in some cases. This fact, plus the use of 3rd person pronouns in the Subjunctive, suggests that whenever an auxiliary intervenes between subject and verb and there is no nominal subject, the independent pronoun is used to mark subject, with some tone changes conditioned by the auxiliary.

Conditional Future (5:§2.2.5): In 5:§2.2.5 I analyze these forms as person marking clitics + AUX *á*. Third persons use the AUX alone, without pronoun clitics. The person indicators in this paradigm seem to be the archaic (West) Chadic subject clitics,¹ which are, in part, replaced by forms of the independent pronouns in Miya for most

¹Cf. Bade/Ngizim 1st singular subject clitic *n-* and 1st plural exclusive *j-*. The Miya *f-* [ɸ] 2nd masculine singular comes from the general Chadic (and Afroasiatic) **k* via a series of changes **k*(^w) > **h*(^w) > [ɸ] (cf. Bade/Ngizim 2nd singular subject clitic *k-*).

TAM's. The 1st person clitics also appear in the First Person Hortatives *gà-naa...* 'let me...' and *gà-yaa...* 'let's...' (5:§2.2.7).

1.3. Enclitic pronouns. Enclitic pronouns fill a variety of syntactic functions. The choice of paradigm depends in part on function, in part on morphological environment. See 5:§4 for paradigms of the DO, IO, and ICP clitics with verbs; see 10:§3.1.1 for paradigms of the genitive clitics used with nouns.

	Genitive; DO & ICP (nominal TAM's)		Direct Object (DO) (Verbal TAM's)	Intransitive Copy Pronoun (ICP) (Verbal TAM's)	Indirect Object (IO) (all TAM's)
	Masculine	Feminine			
1	-wan	-wun	-wan	-wan	-a-n
2m	-fə	-afə	-fə	-ku	-a-fə
2f	-ghəm	-aghəm [-ɣɾm]	-ghəm	-kəm	-a-ghəm [-ɣɾm]
3m	-(w)asə	-uwsə	-ya	-ta	-a-ya
3f	-zà	-azà	-tla	-tla	-a-tla
1p	-ma	-aama	-ma	-ma	-a-ma
2p	-na	-ana	-na	-ka	-a-na
3p	-tlən	-atlən	-tlən	-tlən	-a-tlən

Genitive: The "masculine" clitics are used in direct genitive constructions (10:§3.1.1) with most masculine singular nouns and with all plural nouns. The "feminine" clitics are used in direct genitive constructions with most feminine nouns and also as direct objects (DO) and intransitive copy pronouns (ICP) in nominal TAM's (5:§§1, 2). The following rough generalizations apply to clitic tones: (i) 3rd feminine singular *-zà* is always low; (ii) 2nd and 3rd plural are usually polar; (iii) the remaining clitics behave tonally as a group, with tones determined by a variety of lexical and tonological factors—see sections on the respective grammatical environments.

Direct Objects and Intransitive Copy Pronouns with verbal TAM's: Tones are uniformly high or low depending on lexical verb class—see esp. 4:§1.2. For functions of the ICP see 7:§4.2.

Indirect Objects: The hyphenated *-a-* shown in the paradigm is part of the Indirect Object verb stem (4:§1.1.2), which replaces the regular verb form in all TAM's when an indirect object is present. Tone on this *-a-* is determined by lexical verb tone class. First person IO clitics copy their tones from the tone of *-a-* (1st singular forms a syllable with *-a-*), all other persons have tone polar to *-a-*.

1.4. Independent genitives. The independent genitive pronouns use an initial morpheme agreeing in gender/number with their referents plus a variant of the genitive clitics, shown in the preceding section.

(See paradigm on next page.)

	SINGULAR			PLURAL		
	Masculine	Feminine	Plural	Masculine	Feminine	Plural
1	núwun	túwun	níywan	1p náama	táama	níyma
2m	náfə	táfə	níyfə	2p náanà	táanà	níynà
2f	nághəm [n'ɣm]	tághəm [t'ɣm]	níyim			
3m	núwsə	túwsə	níywasə	3p náatlən	táatlən	níytlən
3f	náazà	táazà	níyzà			

2. Nouns

2.1. Canonical noun structure. Lexical phonological restrictions on nouns are presented in detail in Chapters 2 and 3 (for details, see 2:§3 for syllable structure and word size, 2:§4 for palatalization, and 3:§2.2 for tone patterns). I briefly summarize the facts here.

Segmental structure: The following schema summarizes the possible segmental structures for nouns:

(a)(σ*)CVC(ə) σ* = any number of licit syllables

The minimal structure for a noun is CVC(ə), the final (ə) being present or absent depending on whether the final C is an obstruent or a sonorant respectively (2:§3). This schema suggests that nouns may not end in -a, the only other underlying vowel of Miya. This is true with the exception of borrowed words and a very few nouns of four or five syllables, mostly names of small fauna, e.g. *átikwirma* 'stone partridge', *ámbya'áala* 'skink'. See §2.4 below for the prefix *a-*, which is limited to nouns. The number of syllables of nouns seems to have no limit in principle, but the longest nouns I have found have five syllables, e.g. *ágidàaderuw* 'dung beetle', *pàlakashúwà* 'hawk'.

Tones: Generalizations of tone assignment apply to nominal roots, i.e. the prefix *á-* found on many nouns is not included in the lexical tone pattern. The following generalizations apply to nominal root tones: (i) Bimoraic nouns, i.e. nouns with the root shape CVC of CVCə, are all Toneless or H, i.e. no nouns of this structure are L, nor do any such nouns have a pattern with more than one tone. (ii) Nouns having roots of more than two moras have one of the following tone patterns: Toneless, H, L, H-H, H-L, Toneless-H or Toneless-L. Thus, no root has more than two tones and no root incorporates a "rising" (L-H) tone pattern.² (iii) Two-tone lexical patterns are distributed on roots as follows: if the root has 3 moras, the first tone is assigned to the first mora and the second tone to the remaining moras; for roots of more than 3 moras, the first tone is assigned to the first two moras and the second tone to the remaining moras (in the case of Toneless-X tone patterns, the prefix *á-*, which is Toneless, counts as the first mora to which a Toneless assignment is made). See 3:§2.2 for examples and detailed discussion.

2.2. Gender. Nouns are all grammatically masculine or feminine. For humans and most domestic animals, natural gender correlates with grammatical gender. Nouns have no overt

²The only exceptions to the generalizations in (ii) are a small number (fewer than 10 in my corpus) of four and five syllable nouns, e.g. *ápəsándá* 'gecko' (á-Toneless-L-H), *ámblimàtí* 'miserliness' (á-H-L-H). Historically, at least, such nouns are probably morphologically complex.

marking for gender (but see §2.4, suffix *-ay*, for further comments). The gender of a noun is revealed by agreements it conditions in a range of environments, most of which are illustrated below. See the respective sections for further illustrations and discussion of each grammatical environment. See §2.3.3 for gender agreement vs. number agreement.³

	Masculine noun		Feminine noun	
Demonstratives:	<i>náka</i> mbərgu <i>nákən</i> vən	'that ram' 'this mouth'	<i>táka</i> təmáku <i>tákən</i> vən	'that ewe' 'this grindstone'
Genitive linkers:	mbərgu <i>na</i> Vaziya dzàn <i>na</i> Kasham	'Vaziya's ram' 'Kasham's beans'	təmáku <i>ta</i> Vəziya shím <i>ta</i> Kasham	'Vaziya's ewe' 'Kasham's farm'
Adjectives:	mbərgu pyóo- <i>na</i> ndùwul hómày- <i>na</i>	'white ram' 'empty pot'	təmáku pyóo- <i>ya</i> tsərdíy həmay- <i>ya</i>	'white ewe' 'empty space'
Personal pronouns:	səm bə-tá sáy dzùwkə da- <i>ta</i> sáy	'the man came' 'the kapok fell'	'án bə-tlá say mùku da- <i>tla</i> sáy	'the woman came' 'the sun set'
one who has/does...:	mbərgu <i>bá</i> pəráw tlíwiy <i>bá</i> kàwaw	'ram which is slaughtered' 'meat which is roasted'	ghəruw <i>má</i> pəráw kàbə <i>má</i> zənaw	'cow which is slaughtered' 'gown which is spread'

For some general words referring to humans and a number of common domestic animals, there are separate words for the male and female counterparts:⁴

səm	'man; person'	'án	'woman, wife'
jífə	'husband'		
várkə	'boy, child, offspring'	wùn	'girl, daughter'
lày	'boy, son'		
báahə	'father'	máahə	'mother'
yàsə	'brother'	vàki	'sister'
'íy	'(male) dog'	átíy	'bitch'
lèmbi	'bull'	ghəruw	'cow'
mbərgu	'ram'	təmáku	'sheep, ewe'
càngu	'billy goat'	'áfuw	'nanny goat'
shóoshoo	'rooster'	dlórkíy	'hen'

³Schuh (1989a) presents a concise discussion of gender and number issues in Miya, including gender and number morphology, the syntactic environments where gender/number agreement shows up, and gender vs. number agreement.

⁴In addition to the words listed here, there is a unique pair of words that show what would appear to be a masculine/feminine derivational relation: *dlèrambə* (m)/*dlèrembí* (f) 'dodo, masquerader'. I suspect that these words may historically be compounds. The feminine form retains the LLH tone pattern after H (*tákən* *dlèrembí* 'this dodo'), whereas every other noun with this citation tone pattern takes the non-initial pattern [- -], i.e. H over the first two syllables followed by "new" (downstepped) H on the third syllable (3:§2.2). The tonal behavior of this noun would be explained if the words here comprised a disyllabic L word + a monosyllabic H word.

Two kin terms (both borrowed from Hausa)⁵ and a few animal names may be masculine or feminine depending on the gender of the referent:

kàaká	'grandparent'
jíykà	'grandchild'
zháakə	'donkey'
dlóntó	'lion(ness)'
gədfanzakway	'hyena'

Most nouns with human referents, other than those listed above, and a number of prominent animals are marked for gender with separate words *dzəhə* "male" or *dzaku* "female". The tone on these words is usually L, though in a few cases the tone is inexplicably H. The list below is exhaustive for my materials. I have also included the plurals, which are not predictable. Some of these roots have no special plural marking, some have a morphologically marked plural, and some use the word *ghənwaw* "plural" parallel to the gender marking words *dzəhə* and *dzaku*.

Masculine	Feminine	Plural	
ángwiy dzəhə	ángwiy dzàku	ángwiy ghənwaw	'twin(s)'
bàakoo dzəhə	bàakoo dzáku	bàakoo/bàa'iy	'guest, stranger'
bárbají dzəhə	bárbají dzàku	bárbají	'Fulani person'
dəbakoo dzəhə	dəbakoo dzaku	dəbakoo	'blind person'
gájal dzəhə	gájal dzàku	gájal ghənwaw	'short person'
gálúw dzəhə	gálúw dzàku	gálúw ghənwaw	'slave'
ghàrahaw dzəhə	ghàrahaw dzaku	ghàrahaw	'old person'
gwàr dzəhə	gwàr dzaku	gwàr ghənwaw	'divorced person'
?	káarúwa dzáku	?	'prostitute'
kày dzəhə	kày dzaku	kày ghənwaw	'orphan'
kúrma dzəhə	kúrma dzàku	kúrmamaw	'deaf person'
məzan dzəhə	?	məzamaw	'shooter, hunter'
màrən dzəhə	màrən dzaku	màramaw	'sorcerer'
mìy dzəhə	mìy dzaku	mèemeeny	'Miya person'
təgwar dzəhə	təgwar dzaku	təgwaraw	'leper'
wiyahón dzəhə	wiyahón dzàku	wiya səbó	'Hausa person'
dùwakə dzəhə	dùwakə dzaku	dùwakákàw	'horse'
gúmbə dzəhə	gúmbə dzàku	gúmbə ghənwaw	'roan antelope'
mír dzəhə	mír dzàku	mír ghənwaw	'tantalus monkey'
témbír dzəhə	témbír dzàku	témbír ghənwaw	'gazelle'

Animals other than those listed above have lexically assigned grammatical gender, e.g.

⁵Though 'grandparent' and 'grandchild' seem like basic kin terms not readily borrowed, the non-native (almost certainly Hausa) origin for these words is clear not only from their identity to the Hausa terms but also from the fact that they end in *-a*, a final vowel not found in native Miya words (§2.1).

Masculine

bólənkà	'baboon'
dèrwétti	'leopard'
láahə	'jackal'
zhəzhəkə	'porcupine'
mbòlam	'crowned crane'
gwágú	'dove'

Feminine

ándázhì	'hippopotamus'
gàzam	'cat'
kəvən	'buffalo'
yàwun	'elephant'
ágar	'Ruppell's griffin'
dzàbəráku	'guinea fowl'

2.3. Plurals

2.3.1. Regular plural formation. Miya has a regular morphological pattern for forming plurals which can potentially be used with any noun which does not have one of the unproductive plural types (see the list of masculine/feminine/plural sets above and §2.3.2 below). The regular pattern reduplicates the final consonant, preceded by *-a-* and followed by *-aw*, resulting in a termination *-C_fa-C_faw*. I will refer to the penultimate syllable (*-C_fa*) as the "reduplicant syllable" and the final syllable (*-C_faw*) as the "plural suffix". Tones of plurals are predictable from the singular according to the formulae below. Note that unless otherwise stated, the tones in formulae for deriving plurals are the underlying tones, but the illustrative nouns are given with their isolation citation tone patterns, i.e. with the following tone rules applied (see 3:§3.1 for discussion of the major tonal rules of Miya):

DEFAULT H: A phrase initial Toneless domain takes H (Toneless domains elsewhere copy the preceding tone).

INITIAL H LOWERING: A phrase initial H is lowered to L (but H is (downstepped) H elsewhere, i.e. after a L or another H).

The effect of INITIAL H LOWERING is that in citation form, underlying initial L and H in both singulars and plurals of nouns are neutralized to L.⁶

In the formulae below, *C_f* = root final consonant, *T* = any possible tone (cf. tonal restrictions summarized in §2.1):

CVC(ə) nouns

T		plural	T	H
↙			↙	
CVC _f (ə)	→		CVC _f aC _f aw	

i.e. associate the root tone with the reduplicant syllable and associate H with the plural suffix. As noted in §2.1, Toneless and H are the only existing tone patterns for CVC(ə) roots.

⁶Thus, *vīyayūwawāw* 'fireplaces', with initial L in citation form (from *vīyayūw* 'fireplace'), changes in the phrase *nákən vīyayūwawāw* 'these fireplaces', with downstepped H after the H demonstrative because of the underlying initial H which is lowered by INITIAL H LOWERING in the citation form (3:§3.1). On the other hand, *ndūwuldāw* 'pots' (from *ndūwul* 'pot'), with underlying initial L, retains L in *nákən ndūwuldāw* 'these pots'.

/Toneless/ roots:	kóm	kómamáw [- - -]	'hand'
	káy	káyayáw	'fight'
	'tji ⁷	'tjajáw	'mortar'
	díngə	díngangáw	'bench, ledge'
/H/ roots:	dəm	dəmamáw [_ _ -]	'tree'
	sáy	sáyayáw	'liver'
	giti	gítatyáw	'ax'
	gumbə	gumbambáw	'round gourd'

The formulae below cover nouns of all root structures *other than* CVC(ə).

Nouns with phonetic L as the last root tone in citation form.	[L]	plural	[L] H L
	...VC _f (ə)	→	...VC _f aC _f aw

Condition: The L may not be exclusively associated with final -ə.

That is, associate the pattern HL with the two syllables formed by the reduplicant syllable plus the plural suffix.

/L/ roots:	kəvən	kəvənánàw [_ _ -]	'buffalo'
	zəkiy	zəkiyáyàw	'stone'
	dùwakə	dùwakákàw	'horse'
	mbərgu ⁸	mbərgwágwàw	'ram'
	d̄iytsə	d̄iytsátsàw	'grain, kernel'
/H/ roots:	dəmbər	dəmbəráràw [_ _ -]	'baobab'
	gwànagwam	gwànagwamámàw	'stink ant'
	zhəzhəkə	zhəzhəkákàw	'porcupine'
/TL/ roots:	ávàkiy	ávàkiyáyàw [- _ _ -]	'thorn'
	ábàngu	ábàngwángwàw	'lizard'
	bələnəkà	bələnəkáyáyàw	'baboon'
	átúkusùm	átúkusùmámàw	'hedghog'

The condition on the formula for nouns with a final [L] phonetic root tone excludes the following noun because the L is associated only with final /ə/ (→ [i] in this palatalized root—cf. fn. 7).

ámírfi	ámírfyafyàw [- - -]	'woven grass belt'
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⁷The word 'tji' 'mortar' as well as giti 'ax' and d̄erwétli 'leopard' below are palatalized roots (2:§4). The final vowel of these roots is the (ə) shown in the formulae for pluralization which has been fronted because of the palatalization.

⁸The word for 'ram' is underlying /mbərg^wə/, i.e. the final root consonant is a labialized velar, which rounds /ə/ to yield [u]. The same is true below for dzəbəràku 'guinea fowl', ábàngu 'lizard', and cáangú 'Abdim's stork' in lists below.

This is the only noun in my data, which bears a L which is associated exclusively with a final -Cə syllable. The tone pattern on the plural is accounted for by the formula immediately below if this tone is ignored for purposes of pluralization.

Nouns with phonetic H as the last root tone in citation form.	[H]	plural	[H] L
	...#	→	...C _f aC _f aw

That is, associate the last root tone with the reduplicant syllable and associate L with the plural suffix. Note that this formulation is not quite accurate for the last group of nouns below, i.e. those of the shape CVCCə (underlying tone pattern /Toneless-H/). For these, the last root tone is the H associated exclusively with the final -Cə, and it is this tone that shows up on the -a- of the reduplicant syllable, with the root syllable remaining Toneless (pronounced H in citation). One would predict the same pattern for words with other root structures and with H associated exclusively with a final -Cə, e.g. CVCVCə, etc., but there are no words with such structures in my data.

/Toneless/ roots:	átar	átararàw [- - -]	'squirrel'
	múduw	múduwawàw	'python'
	zháakə	zháakakàw	'donkey'
	átlakwam	átlakwamamàw	'spear'
/... { L } H/ roots:	tùwatíw	tùwatíwawàw [_ _ - -]	'body'
	d̄erwétli	d̄erwétlyatlyàw	'leopard'
	dzəbəràku	dzəbəràkwakwàw	'guinea fowl'
/Toneless-H/ roots other than CVCCə:	kúnkúl	kúnkúlalàw [- - -]	'cap'
	kúsíy	kúsíyayàw	'bone'
	sórtəhə	sórtəhahàw	'lake'
	tyúwlaalím	tyúwlaalímamàw	'cattle egret'
/Toneless-H/ CVCCə roots:	dlántə	dlántátàw [- -]	'lion'
	cánhə	cánháhàw	'heart'
	cáangú	cáangwángwàw	'Abdim's stork'

Except for CVC(ə) roots, the general statement that characterizes the regular plural patterns is that root tones remain unaffected and the last two syllables of the plural have a HL tone pattern. If the final root tone is [H] in the citation form, this [H] is associated with the penultimate syllable of the plural; otherwise the tone pattern HL is associated with the last two syllables. CVC(ə) roots differ from all other root shapes in associating H with the *last* syllable (-aw) of the plural; root tone associates with the CVCa- syllables of the plural.

2.3.2. Irregular and suppletive plurals. A few nouns add the suffix -aw without reduplication. The following list is exhaustive for my materials:

dlórkíy	dlórkáw	'chicken'	(note loss of root final -y)
jórkú	jórkwáw	'monkey'	
málvə	málváw	'chief'	

màrən dzəhə	màramaw	'sorcerer'	(note vowel change in 2nd σ)
məzan dzəhə	məzamaw	'shooter'	
təgwar dzəhə	təgwaraw	'leper'	

The plural ending takes its tone from the elided final vowel of the singular in /Toneless-H/ nouns. 'Sorcerer' has underlying /L/ in the singular, 'shooter' has underlying /H/, correlating with the tone on the ending (cf. *níykin maramaw* 'these sorcerers', with L after the H demonstrative, but *nákən məzan dzəhə* 'this shooter', with downstepped H after H). I did not elicit 'leper' in an environment where its underlying tone emerges, but if the two preceding nouns are representative of a wider pattern, one would expect it to have underlying /H/ since the plural suffix bears H, as for 'shooter'.

Three nouns have unique plural endings; all three lack reduplication:

ghəruw	ghəruwiy	'cow'; plural = 'cattle' (all cows or mixed sexes)
(underlying /L/)		
təmaku	təmakwiy ⁹	'ewe'; plural = 'sheep' (all ewes or mixed sexes)
'íy (m), átíy (f)	'íyúw	'dog'

Following is an exhaustive list from my data of other nouns having irregular or suppletive plurals:

səm	'person'	səbə	'people'
{jifə... jifana}	'husband of ...' 'male' }	dzáfə	'husbands; males'
'ám	'woman; wife'	təvam	'women; wives'
{láy vorkə}	'boy; son' 'boy; child' }	wùtlə míy	'boys; sons; children'
{wùn bāzaniy}	'girl; daughter' 'young woman' }	wùtlə tóvàn	'girls; daughters; young women'
bàndzəhə	'young man'	wùtlə bazan	'young men'
{yàsə vákì}	'brother' 'sister' }	dàwan	'siblings (male, female, mixed)'
{bá (m) má (f)}	'one who does ...'	səba	'those who do ...'
'áfuw	'goat'	cùw	'goats'
{mìy dzəhə (m) mìy dzaku (f)}	'Miya person'	mèemeeny	'Miya people'

In addition to the morphologically irregular plurals in this section, most nouns that occur with the words *dzəhə* (m) and *dzaku* (f) to mark gender mark plural with the word *ghənwaw* (see end of §2.2).

⁹Note that the tone on the second root syllable, *-ma-*, is different in singular and plural.

2.3.3. Plural agreement vs. gender agreement. Potentially any noun may be marked for number with plural *morphology*. However, for plural *agreement*, we must distinguish between what I will refer to as "animate" and "inanimate" nouns. Only "animate" nouns may take *plural* agreement; "inanimate" nouns always take *gender* agreement, whether or not they are morphologically marked as plural.¹⁰

Animate comprises humans, most (if not all) domestic animals and fowls, and larger wild animals; all other nouns are *inanimate*. Though this semantic division predicts the "animate" vs. "inanimate" grammatical distinction, it probably must be considered a lexical feature of the noun, at least in the case of non-domestic fauna. I did not systematically check all nouns for grammatical "animacy", but, for example, *təmbír* 'gazelle' and *gúmbə* 'roan antelope' are "animate", whereas *múduw* 'python' and *járkú* 'patas monkey' are "inanimate". Other than size, perhaps, there is nothing about the nouns or their referents which would have allowed prediction of this categorization.

As noted above, the *animate* vs. *inanimate* distinction is most readily apparent in agreement patterns. The main such patterns are illustrated below. (See the respective sections in Chapter 10 for discussion of noun phrases containing demonstratives, genitives, adjectives, and the "one who has/does ..." construction; see §1.3 above for the Personal Pronouns illustrated here):

"Animates" with plural agreement		"Inanimates" with gender agreement	
Demonstratives			
<i>níykin dzáfə</i> (jifana (m) 'man')	'these men'	<i>nákən víyayúwawəw</i> (víyayúw (m) 'fireplace')	'these fireplaces'
<i>níykin təmakwiy</i> (təmaku (f) 'sheep (sg.)')	'these sheep'	<i>tákən tlərkáyayəw</i> (tlərkáy (f) 'calabash')	'these calabashes'
Genitive Linkers			
<i>dzáfə niy tlén</i>	'their husbands'	<i>ndūwulálaw na Vaziya</i> (ndūwul (m) 'pot')	'Vaziya's pots'
<i>təmakwiy niy Vaziya</i>	'Vaziya's sheep'	<i>kàkərarəw ta Vaziya</i> (kàkə (f) 'shoe')	'Vaziya's shoes'
Adjectives			
<i>səbə mbíy-niy</i>	'red people' (i.e. 'Europeans')	<i>ndūwulálaw mbíy-na</i>	'red pots'
<i>dlərkáw mbíy-niy</i>	'red chickens'	<i>təkəməməw mbíy-ya</i> (təkə (f) 'chair')	'red chairs'

"one who has/does..."

¹⁰Note that plural agreement does not distinguish lexical gender. Thus, rather than consider gender and number to be independent parameters, one might think of the "gender" system of Miya (and many other Chadic languages, including Hausa) as having three parameters: *masculine*, *feminine*, and *plural*. This conception would provide a unified account for a small class of "inanimate" nouns, discussed at the end of this section, whose "gender" is *plural* rather than masculine or feminine.

sə̀bə sə̀ba buwa-tlən (səm (m) 'person')	'people who came'	ndùwulálàw bá rə̀fə	'pots which have sauce (in them)'
ghə̀ruwiy sə̀ba pə̀raw (ghə̀ruw (f) 'cow')	'cows which are slaughtered'	dáangangàw má b́y (dángə̀ (f) 'water pot')	'pots which have water (in them)'
Personal Pronouns			
sə̀bə ghar-tlən sáy	'the people aged'	zháwawáw bàl-tá say ¹¹ (zháw (m) 'rope')	'the ropes broke'
cùw dzar-tlən say (áfuw (f) 'goat')	'the goats scattered'	ndùwulálàw s-áa fùw-s- ay	'the pots will break'

Another feature of syntactic behavior distinguishing "animate" from "inanimate" nouns is that "animates" but not "inanimates" must be morphologically marked as plural with numbers above 'one'. "Inanimates" may be morphologically singular or plural:

"Animate"	tə̀vam tsər ≠ *ám tsər (cf. 'ám wutə̀ 'one woman')	'two women'
	dlárkáw fə̀də̀ ≠ *dlárkíy fə̀də̀	'four chickens'
	cùwawáw dərbitim ≠ *áfúw dərbitim	'ten goats'
"Inanimate"	zə̀kiy vaatlə = zə̀kiyáyàw vaatlə	'five stones'
	kám máahà = kámamáw màaha	'six houses'
	kùsam vaatlə = kùsamámàw vaatlə	'five mice'

Interestingly, the most canonical of inanimates, viz. the word for 'thing' as well as the corresponding question word *màa* 'what?' and the universally quantified expression *kóoméelkóoméekíy* 'everything', are lexically plural, i.e. they govern plural agreement! There are two words for 'thing' in complementary distribution. The word *hám* means 'thing' in the sense of "matter, affair, situation" or '(concrete) thing' followed by a modifier using *bá*¹² 'one which has/does...' (11:§5.2); *kùtə̀* means thing in all other concrete uses:

¹¹Cf. the singular *zháw bàl-tá say* 'the rope broke'. With this and a couple of other examples where I volunteered a form with plural agreement, e.g. **zháwawáw bàl-tlən say*, Vaziya rejected the utterance, saying it sounded "like people" or it sounded "like something alive".

¹²Though most agreements with *hám* are plural, this word is somewhat ambivalent. In the collocation *hám bá...* '(the/a) thing that...', the word *bá* is the masculine singular member of the *bá/má/sə̀ba* 'one who has/does...' set (10:§5). One way to account for this would be to take *hám* as a lexical unit which is [+plural]. The (historical?) explanation for using *bá* rather than plural *sə̀ba* in this construction may have been avoidance of a semantic clash evoked by the relation of *sə̀ba* with *sə̀bə̀* 'people', though *sə̀ba* is used in agreement with lexically "animate" non-humans. Another masculine singular form frequently found with *hám* is the indefinite determiner, *wíy* (10:§2.3). This occurs most frequently when *hám* does not co-occur with *bá*, e.g. *wíy han bay mà wíy n-aakám-úw* 'nothing affects anyone in the house' (some-thing affects NEG anyone of-house-NEG). In the following example, *wíy ham*, a formal singular, governs two plural agreements later in the sentence!

wíy han j́yeyeyíy sə̀ba na zàra-tlən áanduw "apar"
a certain thing there is which IpF is called-ICP Qt horn

'there is a certain thing which is called a "horn"'

Demonstrative	níykin kùtə̀	'this thing'
	níykin ham bá táw	'this food' (thing-for-eating)
Genitive Linker	kùtə̀ niywan	'my thing'
	kùtə̀ niy atsákən	'wild animal' (thing-of-bush)
Adjective	kùtə̀ hómày-niy	'empty thing'
	hám bá ta tyamátamá-niy	'smelly food' (thing-for-eating smelly)
Pronoun	máa faarà-tlən à? what happen-ICP Q	'what happened?'
	kóomee kə̀may-tlən s-ay everything spoil-ICP Tot	'everything spoiled'
	hám ba faarà-tlən thing that happen-ICP	'the thing that happened'
	món sən má ham báa món d-àa b́y kə̀la ləm áa tlən-uw I know NEG thing that I dè-Ipf Prt sweep room with "them"-NEG	'I don't know what I will sweep the room with'

(The last example is an instrumental relative with 3rd person plural resumptive pronoun, *tlən*—cf. 10:§5.4.)

Though it seems that these words must be marked as lexically plural, plurality as the "gender" for unspecified *things* can be connected with plurality for unspecified *humans*. In sentences with impersonal subjects (corresponding to French *on*, German *man*, Hausa *an*), agreement is plural. See 11:§1.2.2 for examples and further discussion.

2.3.4. Remark on the semantics of plurals. As noted at the beginning of the preceding section, any noun in Miya has the potential of bearing plural morphology. This includes mass nouns and even nouns which are themselves plural but which do not bear canonical ...C_FaC_Faw plural morphology (§2.3.1). Pluralized mass nouns have the meaning of "many instances of/types of ..."; pluralized plurals are "plurals of abundance". Note in the examples that English translations do not always reveal whether a Miya noun is lexically a mass noun or a count noun, e.g. *vàray* 'seed(s)' is a mass noun in Miya, so morphological plural means "many kinds of seed(s)", not just the plural of 'seed'.

gùtsər	'mucous'	gùtsəràràw	'mucous of many people'
gàrabə̀	'ribs'	gàrabábàw	'ribs of many people'
tàl	'beer'	tàlalàw	'beer being cooked by many individuals'
pə̀liy	'ashes'	pə̀liyáyàw	'many piles of ashes'
vàray	'seed'	vàrayáyàw	'many kinds of seeds'
gàangam	'drum'	gàangamámàw	'many types of drums'
ákúw	'fire'	ákúwawàw	'instances of fire, e.g. lamps on tables'
sə̀bə̀ (pl)	'people'	sə̀babáw	'large number of people'
kùtə̀ (pl)	'thing'	kùtatáw	'large number of things' (cf. end of preceding §)
cùw (pl)	'goats'	cùwawáw	'large number of goats'

2.4. Miscellaneous nominal formatives

2.4.1. Prefix á-. About one-fourth of all nouns have a prefix *á-* in their citation forms. That this is a prefix is shown not only by synchronic morphological behavior but also by the fact that many (most?) cognate nouns in closely related languages lack it. Data from Warji and Kariya are from Skinner (1977):

	Miya	Warji	Kariya
'hair'	ágəzhə	gəsh-ay	gəzhi
'locust'	ágwám	gwam-ay	gwan
'hippopotamus'	ándázhi	ndazh-ay	ndazhi
'nose'	átím	cin-na	tin

Nouns with prefixed *á-* have three forms: *citation*, with short *á-*; *non-initial* constituent in a noun phrase, with no prefix; *elsewhere*, with long *áa-*. *Citation* includes phrase initial after a major syntactic break. I have illustrated citation with nouns in isolation and after *àndúw* '(saying) that', which introduces quotes and hence is followed by a sentence boundary. The exact function of the noun in the latter two types of environment does not seem to make any difference.

CITATION

Isolation:	ácám (m)	'work'
	ándázhi (f)	'hippopotamus'
	átar (m)	'squirrel'
	ábíy (m)	'water'
After àndúw:	àndúw acám	'they say (it was) work'
	àndúw andázhi	'they say (it was) a hippo'

NOUN PHRASE

Demonstrative + N:	nákən cám	'this work'
	tákən (n)dázhi	'this hippopotamus'
	nákən tar	'this squirrel'
Genitive to a masculine N:	áníyhè cám	'remedy for work'
	ákyar ndázhi	'back of a hippopotamus'
	wàdə tar	'shit of a squirrel'
Genitive to a feminine N:	vəna ndázhi	'mouth of a hippopotamus'
	ángára tar	'leg of a squirrel'
Independent genitive:	ná cám	'that of work'
	ná ndázhi	'that of a hippopotamus'
"one who has/does..." + N:	hám bá cám	'something for work' ("thing which (does) work")

OTHER ENVIRONMENTS

Object of preposition:	nd áacám	'just work'	nd áandázhi	'just a hippo'
	wán aacám	'like work'	wán aandázhi	'like a hippo'

DO after a C or -ə final verb:	món dəm aacám	'I did work'
	à tiy aandázhi	'they killed a hippo'
	à rak aatar	'he chased a squirrel'
DO after a C final IO clitic:	món dəma-tlən àacám	'I did work for them'
	món gərə-tlən àandázhi	'I showed them a hippo'
DO after an -a final verb:	tlən sáa tìy(a) aandázhi-ay	'they will kill a hippo'
	táa biy zàr(a) aatar	'then he called a squirrel'
DO after an -a final IO clitic:	món gərə-tl(a) áandázhi	'I showed her a hippo'
DO of a verbal noun:	sənak(a) aacám	'knowing (how to) work'
	sáhiy(a) aabíy	'drinking of water'

In some cases, I have written the first constituent as ending in short *-a* and the word with the *a-* prefix as having an initial consonant, i.e. genitive after feminine noun, independent genitive, and "one who has/does...". We can show that the *-a* belongs to the first noun by comparing the phrases above with phrases where the noun in question begins in a consonant: *vəna kəvən* 'mouth of a buffalo' (*kəvən*), *ná malvə* 'that of a chief' (*malvə*), *bá mír* 'one who has money' (*mír*). In cases where I have written the first constituent as ending in a parenthesized (elided) *-a*, we can see that the long *aa-* is part of the second noun, not only by comparing these with phrases where the noun has an initial long *aa-* after a consonant but also by comparing them with phrases where the noun begins in a consonant, e.g. *tə sáa zàra zhaak-áy* 'he will call a donkey' (*zhaakə*), *à bala-tlá ghàd'uw* 'he chopped wood for her' (*ghàd'uw*).

Nouns with the prefix *á-* behave differently from nouns which I write with initial /*a.../*. The only two native Miya nouns I found with initial /*a.../*, *'áfuw* 'goat' and *'ám* 'woman, wife', are invariable, i.e. they always begin in short *a-*. Following a vowel they are initiated by ' (glottal stop), but utterance initial, their *a-* does not differ from the prefix *á-*—both *a*'s may be preceded by glottal stop or not.

tákən 'afuw	'this goat'
wàdə 'afuw	'shit of a goat'
vəna 'afuw	'mouth of a goat'
à zar 'afuw	'he called a goat'
à zar 'am	'he called a woman'
táa bíy zàra 'am	'then he called a woman'

The cognate items with 'goat' and 'woman' in other North Bauchi languages also have initial *a-*, e.g. Warji *aw-ay* 'goat', *am-ay* 'woman', Kariya *ahun* 'goat', *am* 'woman'. This is in contrast to most nouns in Miya which have *á-* prefixes but which are consonant initial in other languages (see beginning of this section).

Nouns with *á-* prefixes have a phonological peculiarity. Normally a *ə* would never separate consonants which could abut (2:§3.1.2). Thus, one finds *shìrhə* 'jealousy' but not **shìrahə*, one finds *ghənsə* 'God' but not **ghənsə*. However, there are nouns with the *á-* prefix containing the sequence *áC₁əC₂V...* where *C₁* and *C₂* could form a permissible sequence, e.g. *árəhə* 'bowstring', *árədlə* 'writing', *áməsəm* 'dream' (*m* would assimilate to *n* before a following alveolar). One position where consonants could never

abut is word initial. It thus seems as if words with the *á*-prefix treat the C₁əC₂V sequence as word initial for the purposes of syllable formation.

We now turn to the question of the origin and function of this prefix. It correlates in no way with lexical or semantic features, i.e. it appears on masculine, feminine, and plural nouns, and on nouns with animate, inanimate, mass, and count reference. As the examples from other languages suggest, it also does not seem to correlate with cross-linguistic variables. Phonological characteristics furnish one key to its origin: the prefix always bears H; the minimum stem to which it may be prefixed is CVC(ə); tonally, the majority of words with the *á*-prefix have a downstepped H on the syllable after the prefix, the next largest number copy the H of the prefix, and L after the prefix occurs on the fewest number of stems. Of those with L, all have three or more consonants, e.g. *ávàkiy* 'thorn', *ávwàndə* 'slipperiness'. In fact, these proportions of tonal and segmental shapes for noun stems are in about the same proportions as for nouns without the *á*-prefix. With this in mind, we might search for some sort of formative which would appear only before nouns, and moreover, nouns not falling into any particular lexical or semantic category. Such a formative is the *-a* which forms part of the direct genitive construction for a feminine head noun (10:§3.1.1), e.g. *tàtsiy + láahə → tàtsiy-a laahə* 'tendon of jackal'. Since this linker appears in only a subset of genitive constructions (cf. *kúsfy laahə* 'bone of jackal', with a masculine head noun), one can imagine that a reanalysis could have taken place, much as in English *an ewt > a newt*, associating the *a* with the second rather than the first noun, followed by eventual lexicalization of some nouns with this new "prefix". This scenario receives support from two behaviors of the prefix. First, the linking *-a* is Toneless, i.e. it copies its tone from the preceding syllable; following a pause the *á*-prefix always bears H, the default tone for Toneless domains (3:§3.1). Second, the prefix is absent in just those environments where it is bound by some other noun phrase constituent, i.e. in just those environments which would have furnished the ambiguous analysis to yield the prefix in the first place. The environments where the prefix is retained are those where the noun would be used in its "free", lexical form. I have no ready explanation for the fact that the prefix is long in the "elsewhere" environments other than to point out that Miya has a number of other lengthening processes which I do not fully understand.

2.4.2. Suffix *-(wa)tə*. A few nouns have a suffix *-tə*, with variant *-ti* under morphological palatalization (2:§4), and in three words in my corpus, a variant *-watə*. This suffix appears to be a formative for abstract nouns, making nouns from verbs in four cases, a noun from an adjective in at least one case (possibly two, if 'sweetness' is from an adjective—I could find no related root), and abstract nouns from nouns in three cases. The following list is exhaustive for my materials:

<i>ágwarzhiwátə</i>	(m)	'growing up'	cf. <i>gwàrzə'</i>	'grow up'
<i>ùytə</i>	(f)	'beating'	cf. <i>tìy</i>	'beat'
<i>áyerèti</i>	(m)	'growing old'	cf. <i>ghàr</i>	'grow old'
<i>ámblimàtí</i>	(m)	'miserliness'	cf. <i>mbəlmə</i>	'wink, blink'
<i>kyáràti</i>	(m)	'height'	cf. <i>kàrakara-</i>	'tall'
<i>píyátə</i>	(m)	'sweetness'	< ?	
<i>ákáytə</i>	(f)	'difficulty'	cf. <i>kày</i>	'orphan'

<i>gàskéewátə</i>	gender?	'truth'	cf. Hausa <i>gàskée</i>	'(in) truth'
<i>láafiyeewátə</i>	gender?	'(good) health'	cf. Hausa <i>láafiyàa</i>	'(good) health'

2.4.3. Suffix *-ay*. Though Miya has grammatical gender, it does not overtly mark nouns for gender. The closely related Warji language also has gender, but unlike Miya, nearly all nouns overtly show gender with a suffix *-na* on masculine and plural nouns and *-ay* on feminines. Miya has reflexes of both these suffixes. The masculine suffix, though not used on nouns, is consistently used to mark agreement on adjectives (§3); one noun also bears this suffix, viz. *jífana* 'male, man', but this may originally have been an adjective used substantively. Feminine adjectives are marked with a suffix *-ya*, undoubtedly a variant of *-ay*.

A fair number of nouns do have a suffix *-ay*. In a sample of 367 nouns, the following figures emerged correlating gender with this suffix:

24 of the 367 (6.5%) terminate in *-ay*
 Monosyllabic final *-ay* nouns: 2 of 5 are feminine
 Other final *-ay* nouns: 14 of 19 are feminine

These figures hardly qualify *-ay* as a feminine gender marking suffix. On the other hand, it is clearly a suffix rather than part of the root, as the following comparative data show:

Miya			Warji	Kariya
<i>kúmáy</i>	(f)	'ear'	<i>kum-ay</i>	<i>kum</i>
<i>màdzay</i>	(f)	'earth'	<i>məz-ay</i>	<i>anza</i>
<i>bəzakwáy</i>	(f)	'5-stringed harp'	<i>məsag-ay</i>	<i>bəshakwə</i>

However, many of the feminine nouns which have the *-ay* suffix in Warji do not have any suffix in Miya, e.g.

<i>dlàrkíy</i>	(f)	'chicken'	Warji	<i>dlàrkəy-ay</i>
<i>màrdə</i>	(f)	'millet'	Warji	<i>mard-ay</i>
<i>sày</i>	(f)	'liver'	Warji	<i>say-ay</i>

Thus, while there is evidence that *-ay* in Miya is a suffix which correlates with feminine lexical gender, it is now only a historical remnant rather than a productive formative.

3. Adjectives

Adjectives constitute a distinct lexical category in two respects: (1) as nominal modifiers, they require gender/number-sensitive suffixes *-na* (m), *-ya* (f), *-niy* (pl); (2) within a noun phrase, they directly follow the head noun with no intervening grammatical morpheme. In this section, I will discuss only categories of adjectives and their morphology. See 10:§4.1 for adjectives in attributive constructions and 11:§4.2 for predicate adjectives.

I divide adjectives into two main subcategories, "primary adjectives" and "adjectival nouns", with a couple of additional minor types which have special properties. The lists here are exhaustive for each type in my materials.

Primary adjectives are roots which never appear without one of the agreement suffixes. There are only five:

Masculine	Feminine	Plural	
gàbàna	gyàbiya	gyàabóoniy	'small'
gàrna	gyàrya	gèruwniy	'large; (of people) important'
mbiyàna	mbiyya	mbìyniy	'red'
pyðona	pyðoya	pyðoniy	'white'
rìnnà	rìnya [rì:nya]	rìnniy	'black'

Utterance initial, these adjectives are all pronounced with L tones, but only 'small' is underlyingly L, the rest being underlyingly H: cf. *mbàrgu gābāna* 'small ram' but *mbàrgu gārna* 'large ram' (see 3:§§1.1, 3.1 for this regular alternation of H). Note that 'small' and 'large' are palatalized (2:§4) in the feminine and plural, but not the masculine; 'white', 'black', and probably 'red' are palatalized in all persons. The phonetic realization of the feminine for 'black', with unexpected long [i:], might be explained by passing through an intermediate stage /rĩŋpa/ with vocalization of the first /p/ following the nasalized /i/. I have no explanation for the long *aa* in the plural form for 'small'.

Adjectival nouns can be used nominally with no suffix, but if used as noun modifiers they require the gender agreement suffixes.¹³ Many adjectival nouns are reduplicants. In the list below I have grouped these first. Several of the non-reduplicated stems include a medial syllable /bə/. Note the limited tone patterns: all those marked with ` are underlyingly L rather than H (which would also be pronounced L in utterance initial position). Note also the large proportion of palatalized words when compared to the entire nominal lexicon:

Noun	Masculine adj.	Feminine adj.	Plural adj.	
cùwcuw	cùwcuwna	cùwcuwya	cùwcuwniy	'warm (food, etc.)'
d'yámád'yamá	d'yámád'yamána	d'yámád'yamáya	d'yámád'yamániy	'bitter'
fáwáfawá	fáwáfawána	fáwáfawáya	fáwáfawániy	'light (in weight)'
cf. <i>kyàràti</i>	kàrakarana	kàrakaraya	kàrakaraniy	'tall, long'
kwáyákwáyá	kwáyákwayána	kwáyákwayáya	kwáyákwayániy	'hard (to the touch)'
lèbèlèbè	lèbèlèbèna	lèbèlèbèya	lèbèlèbèniy	'soft; weak'
ndàndam	nda&ndanna	ndàndanya	ndàndanniy	'heavy'
tsèntsèm	tsèntsèna	tsèntsènya	tsèntsènniy	'sour'
tyámátyam	tyámátyamána	tyámátyamáya	tyámátyamániy	'foul smelling'
vyád'yávyadyà ¹⁴	...vyád'ána	vyád'yávyadáya	vyád'yavyadániy	'slimy, slippery'
ám'bán ¹⁵	(á)mbánna	(á)mbánya	(á)mbánniy	'good, nice, beautiful'

¹³The fact that these nouns can take gender agreement suffixes qualifies them as adjectives. There are nouns which express qualities which cannot directly modify nouns, e.g. *piyáti* 'sweetness' but no **piyatə-na*, etc. See 10:§4.1 for use of these nouns as modifiers.

¹⁴I did not get any examples of this word as an attributive modifier, but I assume on the basis of its phonological structure and meaning that it falls into the reduplicated adjectival noun class. The final L tone is probably a transcription error and should be downstepped H.

¹⁵Along with *ám'bán* I was given a reduplicated form *mbám'bán* as a translation of Hausa *kyau* 'goodness, niceness'. Clearly, however, the segmental form and tones show the adjectival forms to be based on the former.

byàtlyama	byàtlyamana	byàtlyamaya	byàtlyamaniy	'green, unripe'
bàndaliya	bàndaliyna	bàndaliya	bàndaliya ¹⁶	'naked'
dàbəsən	dàbəsanna	dàbəsanya	dàbəsanniy	'blunt'
gwàbəsəm	gwàbəsanna	gwàbəsanya	gwàbəsanniy	'thick (in size)'
həmay	həmayna	həmayya	həmayniy	'empty'
ndìfiytlə	ndìfiytləna	ndìfiytləya	ndìfiytləniy ¹⁷	'shallow'
ràdyadì	ràdyadyana	ràdyadyaya	ràdyadyaniy	'cold (to touch)'

Several adjectival nouns add a formative *ee* when used with the agreement suffixes. All semantically indicate distance or quantity (see also §4); all have underlying L rather than H tone:

kùlkul	kùlkuleena	kùlkuleeya	kùlkuleeniy	'deep'
mbàtlə	mbàtleena	mbàtleeya	mbàtleeniy	'near'
sàar	sàareena	sàareeya	sàareeniy	'distant'
càsə	càseena	càseeya	càseeniy	'many, much'
gyàabə ¹⁸	gàabeena	(not collected)	gyàabeeniy	'a few, a little'
ndàfa	(not collected)	(not collected)	ndàbeeniy	'a few, a little'

Adjectives borrowed from Hausa are ambivalent as to word category. *Sáaboo* 'new' below behaves like an adjectival noun, but the other two were sometimes given with gender suffixes, sometimes as invariable words:

sáaboo	sáaboona	sáabooya	sáaboony	'new' < Hausa <i>sáabóo</i>
shúw'díy	?	shúw'díya	?	'blue' < Hausa <i>shúud'ii</i>
tsóohoo	tsóohoona	?	?	'old' < Hausa <i>tsóohóo</i>

cf. *tsóohoo kàkər*
'old shoe' (f)

4. Quantifiers and Numerals

4.1. Cardinal numbers. The cardinal numbers of Miya are as given in the table below. On the left are the numbers as they appear in counting or as cited individually. The variants preceding the slash for '2' and '5' are used in counting, those after the slash as attributive noun modifiers. For '1' through '10', I have also included, on the right, the cardinal numbers exemplified as attributive modifiers of words bearing L and H tones respectively. These, together with the citation forms, reveal (1) that the numbers *other than* '1', '8', and '10' bear underlying L rather than H tone and (2) that '10', though it has the appearance of being morphologically complex, behaves tonally as a unit, becoming all L after L as do all underlying Toneless roots. I discuss the tone of '1' in detail below. The words for '100'

¹⁶The gender/number forms here are as I recorded them in my notes. The feminine form could be a transcription error for *bàndaliyya*, though all the other words here retained the final vowels of the nominal form in the agreement forms. The plural form, seen in *wùtləmiy bāndaliya* 'naked children', could not be explained in this way, however.

¹⁷The gender/number forms I was given for 'shallow' are as listed here. Cf. the next group of adjectival nouns for the *-ee-* seen in the plural form.

¹⁸Compare the *primary adjective* 'small' above and note lack of palatalization in the masculine form. I did not collect a feminine example.

and '1000' are borrowed from Hausa, but compare the tones of Hausa *d'arfi* '100' with the tones of the Miya counterpart. The connecting word 'ənáa' in the hundreds is elsewhere the comitative preposition 'with, and' (see 10:§6).

1. wútə	sən wutə/nákən wutə	'1 person/this (single) 1'
2. tsəər/tsəər ¹⁹	səbə tsər/níykin tsər	'2 people/these 2'
3. kidi	səbə kidi/níykin kidi	'3 people/these 3'
4. fəďə	səbə fəďə/níykin fəďə	'4 people/these 4'
5. vātł/vātłə	səbə vātłə/níykin vātłə	'5 people/these 5'
6. məaha	səbə məahə/níykin məaha	'6 people/these 6'
7. məatsər	səbə məatsər/níykin məatsə	'7 people/these 7'
8. fərfəďə	səbə fərfəďə/níykin fərfəďə	'8 people/these 8'
9. kuciya	səbə kuciya/níykin kuciya	'9 people/these 9'
10. dərbítim	səbə dərbítim/níykin dərbítim	'10 people/these 10'

11. bəhən wutə ²⁰	16. bəhən məahə
12. bəhən tsər	17. bəhən məatsər
13. bəhən kidi	18. bəhən fərfəďə
14. bəhən fəďə	19. bəhən kuciya
15. bəhən vātłə	

20. dífi tsər	21. dífi tsər bəhən wutə
30. dífi kidi	32. dífi kidi bəhən tsər
40. dífi fəďə	43. dífi fəďə bəhən kidi
50. dífi vātłə	54. dífi vātłə bəhən vātłə
60. dífi məaha	65. dífi məaha bəhən məahə
70. dífi məatsər	76. dífi məatsər bəhən məahə
80. dífi fərfəďə	87. dífi fərfəďə bəhən məatsər
90. dífi kuciya	98. dífi kuciya bəhən fərfəďə

100. dəriy, dəriy wutə	125. dəriy wutə 'ənáa dífi tsər bəhən vātłə
	256. dəriy tsər 'ənáa dífi vātłə bəhən məahə

1000. dəbu, dəbu wutə

The number *wútə* '1' bears H L in citation and after H, but L H after L. This number has an underlying /Toneless + L/ tone pattern, with the phonetic tones being derived as follows (see 3:§3.1 for the rules involved here):

	L	DEFAULT	H L
		HIGH	
Phrase initial:	wutə	→	wutə

¹⁹The counting form for 'two' is the only word in Miya that I know of which is consistently produced with a long [əə].

²⁰As in Hausa, the number 'ten' can optionally precede the teens, e.g. *sónáw dərbítim bəhən vātłə* 'fifteen years'.

	H	L		H	L
			↘		
			↘		
Following H:	wutə	→	wutə		
	L	L		L	L
			↘		
			↘		
Following L:	wutə	→	wutə	→	wutə

4.2. Ordinal numbers. There are two methods for forming ordinal numbers. The one volunteered as a translation of Hausa ordinals and which I did find textual examples of consists of the independent genitive markers *na* (m), *ta* (f), *niy* (pl) plus the cardinals, e.g.

ná wutə	tá wutə	níy wutə	'first'
ná tsər	tá tsər	níy tsər	'second'
ná kidi	etc.	etc.	'third'
ná fəďə			'fourth'
ná dífi vātłə			'fiftieth'
etc.			

The other method derives an ordinal from a cardinal using a prefixed and suffixed *a*. I have found these only in texts. In all cases, the ordinal is used as a substantive rather than an attributive. This usage may differentiate these and the ordinal type discussed above, which may be used attributively (10:§4.4).

n(a) áatsóra	'second'
n(a) áakída	'third'
n(a) áafəďə	'fourth'
átsəruwsə	'the second of them' ('his second')
s-áakídatlən	'finally, the third one of them'

Note that, like the nominal prefix *á-* (§2.4.1), the ordinal prefix is lengthened when not postpausal. Note also that the tones on the numeral roots are H rather than L as in the cardinal forms or the corresponding roots.

4.3. Other quantifiers. Four other quantifiers behave syntactically like numerals:

məna	'how many/much?'	tàabərma mənà?	'how many mats?'
		mìr mənà?	'how much money?'
càsə	'many/much'	ghəruwiy cásə	'many cows'
		tsəpər cəsə	'much urine'
gyàafə	'a few/a little'	mìr gyàafə	'a little money'
ndàba	'a few/a little'	tómakwíy ndabə	'a few sheep'

The latter three can alternatively take adjectival morphology (see end of §3 and 10:§4.2).

Two further quantifiers, both meaning 'all', differ from those above in that they may precede or follow the head noun. See 10:§4.3 and 11:§1.9 for further discussion and meaning of these words.

ndyâan	'all'	ndyâan sɔ̀bɔ = sɔ̀bɔ ndyâan	'all the people'
pátɔ	'all'	pátɔ sɔ̀bɔ	'all the people'

5. Temporal Nominals, Adverbs, and Pro-Forms

Following are the main temporal words of Miya:

còonákɛ̀(n)	'now'	
nóná	'today'	
súwà	'tomorrow'	
wíy tsuwà	'day after tomorrow'	lit. "some morning"
bónà	'yesterday'	
bónà naká	'day before yesterday'	lit. "that yesterday"
átaa tir naa suwà	'last month'	lit. "on month of yesterday"
tír na bónà	'next month'	lit. "month of tomorrow"
dàbaja	'this year'	
háa wiya múku	'next year'	?lit. "until some day/sun"
hèevóná	'last year'	
àashiyí	'olden times, the past'	
wàsɛn	'(during) the raining season'	cf. wàshasham 'year'
màtsawá	'(during) the harvest season'	cf. màtsaw 'harvest season'
ámúkwa	'(during) the dry season'	cf. mùku 'sun, day'
hácaawúw	'(in the) early morning'	
tsùway	'(in the) morning'	
mùkwa	'(at) midday'	cf. mùku 'sun, day'
rédzà	'(in the) afternoon'	cf. ródzò 'afternoon'
cámáza	'at night'	cf. cámázo 'night'
mùkwá na X	'(on) the day that/of X'	cf. mùku 'sun, day'
éewúya	'some day, (at) some later time'	? < "on some (day)", with mùku (f) 'day' suppressed

Miya has also borrowed some temporal words from Hausa:

bázara	'hottest part of the dry season'	Hausa bázáráa
'azàhàr	'early afternoon'	Hausa àzàhàr
kùllum	'always'	Hausa kùllúm
lókàciy	'time'	Hausa lókàcìi (note tones)
kárfèe	'o'clock'	Hausa kárfèe

The list of native Miya temporal expressions shows that several are derived from nouns by means of a suffix *-a* (no consistent tone assignment rules emerge), and in one case ('dry season'), by a prefix *a-* as well. A number of the temporal expressions with no known

nominal source also end in *-a*. This differentiates such words from underived common nouns, which never end in *a* (see §2.1). Correlating with overt morphological marking and obvious semantic similarities is the fact that temporal adverbs, including complex expressions with nominal head, have no additional syntactic marking such as prepositions when used in the sense of "at, during":

à taa háam ba taa tsuwà 'he didn't eat food *in the morning*'

à ðəmatlɛ̀n àakír camáza 'they were burglarized *at night*'

mùkwá na sáa tal ka, mìsáalì kárfèe tsòr, ...
'on the day for drinking the beer, about 2 o'clock, ...'

lókàciy bá na dàa bíy vórkáw, ... 'when (at the time that) she is going to give birth, ...'

Temporal adverbs can be used with "marked" prepositions such as 'until', 'up to', 'from':

tún àa bazara 'ever since ("since from") the hot season'

súw kwàpa súwà 'until tomorrow', "see you tomorrow"

báhíy camáza 'up until the night'

Compare the last example, where *cámáza* 'night' has its temporal adverbial form, with a sentence such as *cámázo d'ɛ̀n sáy* 'night has fallen' ("night has done"), where the root for 'night' is used substantively rather than adverbially.

6. Locative Nominals, Adverbs, and Pro-Forms

6.1. The "locative form" of nouns. Many nouns, when used to specify a location, have special locative forms. For most such nouns, the locative form employs a prefix *a(a)-*, but some nouns have other markers, in particular a suffix *-a* (cf. temporal forms discussed in the preceding section). Thus, consider the proper names *Gituwa* and *Mangila*:

Names

ngɛ̀n-uwsɔ̀ jíy Gítuwà 'his name was Gítuwà'
name-his "was" Gítuwà

Mángìla kúma à sɛ̀m m ée naka bíy-uw 'Mangila did know that
Mangila also Pf know NEG exist that water-NEG water was there'

Locatives

... dɛ̀ b-uws áaGítuwà '... and he went to Gítuwà'
Sjn go-ICP (to) Gítuwà

... dɛ̀ jíy tsɛ̀g-uwsɔ̀ àaMángìla '... and he settled on Mangila'
Sjn Prt settle-ICP (on) Mangila

dɛ̀ baa-z ée kùw aabíy àaMángìla 'she came to draw water at Mangila'
Sjn came-ICP to draw water (at) Mangila

món bōo-wan áa àaGítuwà I come-ICP from Gituwa	'I have come from Gituwa'
sòn n(a) aaGítuwà person of Gituwa	'the person of Gituwa'
ábíy n(a) aaMàngìla water of Mangila	'the water of Mangila'

These examples reveal a number of things about locative forms. The first three *locative* examples show that for nouns which can refer to locations, the locative form of the noun alone with no preposition is used to show goal of motion or unmarked stationary location, usually translatable as 'at' or sometimes 'on' or 'in'. One might argue that what I have labeled a "prefix" is in fact a locative preposition meaning 'to', 'at', etc. While it is possible that this is the historical source of the prefix, several facts in Miya show that this is not the best analysis. First, as the fourth locative example ('I have come from Gituwa') shows, the locative prefix is used even where a preposition is present.²¹ Second, some nouns referring to locations, such as the name of the town *Miya*, never have a prefix. In the first example below (goal of motion) and the second (unmarked stationary), the locative word has no overt marking; in the third, the preposition *aa* 'from' is present:

tà s-áa b-ùwsó Mìy-áy he Tot-Ipf go-ICP (to) Miya-Tot	'he will go to Miya'
à dām aacám Mìya Pf do work (at/in) Miya	'he worked at/in Miya'
Kásham tlà-t(a) áa Mìya Kasham arise-ICP from Miya	'Kasham set out from Miya'

Finally, most place-names in citation form have initial *a-*, including place-names where comparative evidence shows that the word originally did not have that prefix:

Ábàru, Ádingil, Ásàku, Átsaamà	(various landmarks or areas in Miya town)
Ákanòo	'Kano'
Áningi	'Ningi'
Ágàaruw	'Bauchi'

(cf. Hausa *gàarúu* 'wall around a town')

The locative prefix has the same morphophonemic properties as the *a-* prefix discussed in §2.4.1, viz. it is always underlyingly toneless, and it is short following a pause but long elsewhere. However, I consider these two *á-* prefixes to be different formatives for the following reasons:²² The nominal prefix is part of the lexical representation of the noun, with no consistent meaning. Moreover, its presence or absence is conditioned by syntactic environment rather than meaning, viz. it is absent when governed by a preceding element in

²¹The preposition + locative prefix can reduce to a single long *aa* in rapid speech through VOWEL ELISION (2:§2.2.4). The two vowels show up only when the speaker pauses or is being emphatic.

²²If the prefixes are distinct formatives, we would predict that a noun like *ákyar* 'back; behind', which has the lexical *á-* prefix in its concrete meaning but also has a relational locative sense (§6.2.2), could have two functions which are formally identical, leading to ambiguous sentences, e.g. *mən nay aakyar-wasə* 'I saw his back' or 'I saw (it) behind him'. I did not check this.

a noun phrase (see §2.4.2 for examples). The locative prefix is never absent. However, because of the function of locatives, the only "governed" environment in which they can appear is in genitive constructions of the type "X *naltaniy* ___" 'X of (place), X associated with (place)'. The distinction between non-locative nouns and their locative counterparts with the prefix *a-* leads to minimal pairs such as the following, differing primarily or solely in the presence of the prefix, heard as a lengthened vowel, between the genitive linker (10:§3.) and the second noun:

lən ta Gítuwà hut of Gituwa	'Gituwa's hut'	vs.	lən t-aaGítuwà hut of-Gituwa hill	'the hut on Gituwa hill'
ábíy na Màngìla water of Mangila	'Mangila's water'	vs.	ábíy n-aaMàngìla water of-Mangila hill	'the water of Mangila hill'

Below are further examples of genitive constructions showing the retention of the locative noun prefix:

tliwiy n-aatsákən (cf. <i>tliwiy pákə</i> 'biceps' ('meat of arm'), direct genitive—10:§3.1)	'wild animal' ("meat of bush [<i>tsàkən</i>])"
kùtə niy atsákən (<i>kùtə</i> always conditions plural agreement—cf. end of §2.3.3)	'wild animal(s)' ("thing(s) of bush")
dlàngər n-aakám	'domestic animal' ("animal of house [<i>kàm</i>])"
dúwkíy t-aakán-ná	'the wealth of your (pl) house'
tíyín t-àavíy	'incisors' ("teeth of doorway [<i>viy</i>])"
tíyín t-àawúma (cf. <i>nákən wúm</i> 'this jaw', with <i>á-</i> lexical prefix absent and note final <i>-a</i> in locative)	'molars' ("teeth of jaw [<i>áwúm</i>])"
sóbə niy aavùwágwàhiy	'people of the town'
mbàdə-wun t-áatyá'ay	'my right thigh' ("my thigh that-of right [<i>átyá'ay</i>])"

Note that the locative form is used only when forming a genitive construction meaning "X associated with location". Compare *vəna kám* 'in front of the house' ("at) mouth (of) house") with the short *a* of the direct genitive construction (10:§3.1) to the phrases above with *kàm* 'house'.

6.2. Examples of words indicating location. We can divide nouns used locatively into four groups (§§6.2.1-4) depending on the type of locative meaning they express and their morphology in locative and non-locative constructions.

6.2.1. Nouns indicating locations. This section includes a partial list of nouns (excluding proper names of places—see §6.1 for examples) which can themselves indicate locations in addition to their concrete meanings. Examples from texts show that the *á-* locative prefix is the norm for nouns in this locative function. In addition to the locative form itself, some of these nouns have different genitive linking structures depending on their locative or non-locative use. Therefore, I have listed four forms: the free nominal form, as would be used, for example, as the citation form referring to a concrete nominal; the corresponding form of the free nominal when used as head of a genitive construction; the locative form, i.e. the form used locatively without further modification; and the corre-

sponding form of the locative form used as the head of a genitive construction (see Chapter 10, esp. §3.3.3, for locative genitives).

Free nominal		Free nominal + genitive	Locative form		Locative + genitive
gàhuw	'stalks'	(no examples)	ágáhuw	'disused farm'	(no examples)
ánguw	'quarter'	anguw ta malvó 'chief's quarter' ánguw táama 'our quarter'	ánguw	'quarter'	ánguw há malvó 'in the chief's quarter' ánguw háama 'in our quarter'
kóm	'hand'	kómásə 'his hand'	(no non-gen. examples) ²³		ákómásə 'in his hand'
kàm	'house'	kàm Kasham 'Kasham's house'	ákám	'house'	ákám hà Kasham 'at K.'s house'
kàm	'hometown'	kàm(tlèn) 'his/their hometown'	kàm	'hometown'	kàm(tlèn) ²⁴ 'at/to his/their hometown'
kàasu	'market'	(no examples)	ákàasu	'market'	(no examples)
lèm	'hut'	lèm tuwsə 'his hut'	álóm	'hut'	(á)lóm húwsə 'in his hut'
shím	'farm'	shím ta Kasham 'Kasham's farm'	ávùwàshím	'farm'	ávùwàshím ha báahə 'at father's farm'
			áshinà	'farming hut'	(no examples)
tùwatúw	'body'	tùwatúwsə 'his body'	(no non-gen. examples) ²³		átúwsə 'on his body'
vùwa-gwahiy	'town'	(no examples)	ávùwá-gwahiy	'town'	(no clear examples)

See §6.2.4 for further comments on the locative linker, *ha*, in some of the Locative + genitive constructions. For the formative *vùwa* seen in 'farm' and 'town', cf. 'stomach' in §6.2.2; *-gwahiy* in 'town' does not exist independently unless it is the verbal noun of *gwà* 'spend a long time'.

²³Miya apparently does not like to use body parts as bare locatives without possessors expressed. In testing such sentences as Hausa *yaa ji ràunii à Kafà* 'he sustained a wound on the foot', *kadà kà zubà wannàn maagàni à idò* 'don't put this medicine in (your) eye', Vaziya insisted on Miya translations with possessive pronouns on the noun: *à d'ən ráwniy aatáa ngar-úwsə, fà ta vá nakən niyh aatíyà-f-úw* for the two Hausa sentences respectively. See 10:§3.1.2 for discussion of *inalienable possession*, which includes body parts.

²⁴In its locative form, *kàm* 'house, compound' means 'to/at one's home', e.g. *tàa buws áakàm* 'he will go home', *à báy dzàm áakám* 'he will take beans home'. Used locatively as a bare noun, it means 'hometown'. It can be used with no possessor or with a 3rd plural possessor only in this function, e.g. *tàa buws kàm(tlèn)* 'he will go to his ("their") hometown', *à báy dzàm kàm(tlèn)* 'he took beans to his ("their") hometown'.

6.2.2. Locative relational words ("prepositions"). In this group are words which have a concrete nominal use but which would be translated by English prepositions when used as locative relational terms. Most are body parts. As with the locative words in §6.2.1, a number of the words in this section have different genitive structures depending on whether they are used as concrete nominals or locatives:

Free nominal		Free nominal + genitive	Locative form		Locative + genitive
ákyar	'back'	ákyarwásə 'his back'	món kyárakýàrà	'I'm behind'	mòn aakyarwásə 'I'm behind him'
?		cf. <i>átlara mbàdə</i> 'crotch' ("between thighs")	átlar	'between'	mèn aatlára zəkíy 'I'm between the stones'
átsafə	'middle, center'	(no examples)	t-àatsafə	'he's in the middle'	t-àatsafa kám 'he's in the middle of the house'
cəbə	'bottom, base'	(no examples)	ácəbə	'underneath'	ácəbə zəkíy 'under the stone'
bədfə	'navel'	bədfaza 'her navel'	ábədfə	'in front'	ábədfə ba gwàlfə 'before the chief'
?			d'áhə [d'ahə = d'ɣɣ = d'oo] míy d'áhə 'we are inside'	'inside'	d'ɣɣ lóm 'inside the hut' tlén d'ɣɣzà 'they are in it (f)'
ghàm	'head'	ghàma d'áy 'rock outcropping' ("head of rock")	ághám tlèn aaghám 'they are on top'	'on (top of)'	tlèn aaghàma d'áy 'they are on the rock'
vən	'mouth'	vənafə 'your (m) mouth'	tlén vənahə 'they are ahead'	'in front of'	món vənafə 'I am in front of you'
vùw	'stomach'	vùwaza 'her stomach'		(See comment immediately below.)	

The word *vùw* 'stomach' is not used as a productive relational locative word, but it is combined with certain bases indicating "spacious" locations to form locatives, such as *vùwagwahiy* 'town' and *ávùwàshím* 'farm' in §6.2.1. Note also the following phrase:

wár naamà garná n-ávùwá-Miya ndyâan 'our main festival for all of Miya'

6.2.3. External relational terms. The terms in this group specify some sort of orientation with the external environment. They differ from the terms in §6.2.2 in that they do not appear in a genitive relation with the following noun but rather use the prepositions *àà* 'from' or *əndáa* 'with (respect to)':

mbàtlə	'near'	cf. §3, end, for adjectival form
sàar	'distant'	cf. §3, end, for adjectival form
dəna	'sky; above'	wùtlə zhámì tlátlən dəna 'the birds flew skyward'
		tlón dən(a) (aa) àagháma zàkiy 'they are above (the top of) the rock'
kwàtlə	'below, under'	'ár kwátlə tɔ kwátlə 'ənáa təkən 'put it down' 'it's under (with) the chair'
átýá'ay	'right (hand/side)'	(see example, end of §6.1)
ágá'ay	'left (hand/side)'	
'árèewá	'north'	} (all borrowed from Hausa)
kúdù	'south'	
gábàs	'east'	
yámmá	'west'	

Note that among these, only 'right' and 'left' have an *á-* prefix, and these two have the prefix in citation form as well as in locative constructions.

6.2.4. Non-locative nouns in locative constructions. Sections 6.2.1-3 consider only words which can themselves represent location or locative relations. Most nouns, including all animates, cannot be used alone to represent locations, i.e. it is not possible to say, word for word, 'they went to the chief' or 'I have come from John'. In such cases the non-locative noun must be embedded in a genitive phrase with a word meaning "place" as head. There are three words in Miya which can translate as "place" in such constructions. In studying examples from texts, I have been unable to discover any difference in their meaning or distribution. Moreover, I have not found any of the three used outside the type of construction in question here (see §6.3 for translations of "place" without a genitive complement and one further word used in a way similar to those in this section):

átíyr(à)	dè baa-tlón àtíyrà Mángìla	'they went to Mangila' (referring to a man named Mangila)
ádúkun(á)	món bù-wán s-aadukunà-f-áy I came-ICP Tot-place-your-Tot	'I have come to you (ms)'
	Kásham bə-t(a) áa àadúkuná Jaalà	'Kasham has come from Jala'
h(á)	ábíy má háa-má-w water NEG place-our-NEG	'there's no water where we are'
	tə b-uwsó ha niy bàahə he go-ICP place &Co. father	'he goes to the family'

The last word *h(á)* is of particular interest. This word is unusual in being the only monoconsonantal noun (see §2.1) in Miya, though it always requires some sort of genitive complement and hence is never cited in C(V) form. It is clearly of the same origin as the special genitive linker *h-* used with some of the locative words in the lists in §§6.2.1-2. It may have become frozen to certain words of which it was not originally a part, e.g. *d'áhə*

'in(side)' and *dàrhə* 'road' (cf. also the citation form for 'in front' in §6.2.2). Following is its complete paradigm with genitive complements:

	Singular	Plural	Noun possessor
1	húwun	háama	há niy bàahə 'place of the family'
2m	háfə	háana	('place of father & Co.')
3f	hághəm [h'ɣm]		
3m	húwsə	háatlən	
3f	háazə		

6.3. Locative pro-forms: the word *yí* or *'iy*. A single formative which can be represented as *lyə/* or *l'əy/* "place", with obligatory assimilation of */ə/* to contiguous *ly/* (2:§2.2.1.2), participates in the locative pro-forms listed below:

'íykən	'here'
'íyka	'there'
'íykwá	'where?'
éeyí	'the place in question, there'
éeyin + NP	'the place of NP'
ée ...	'the place that ..., where ...'
éewutáy	'at one place, together' (cf. <i>wútə</i> 'one')
cf. <i>éewúya</i>	'some day, a certain time' (cf. <i>wíy</i> 'a certain')

I am assuming all these forms are morphologically related, though [*i:*] in the first three allied with [*e:*] in the last ones is problematic. A possible explanation is that [*e:*] is historically or underlyingly the *á-* locative prefix (§6.1) + *y(i)*. I have no explanation for the tonal differences.

The first three words are morphologically divisible into locative *'iy* + the previous reference determiners *kən* and *ka* (9:§2) and the question morpheme *kwa* (12:§2.2.6) respectively. In addition to the expected functions for these three, 'there' is frequent in the phrase *à(a) 'íyká* 'thereupon' (with the preposition 'from') in the equivalent English temporal meaning.

In the meaning "there" = "the place in question (not necessarily visible)", *éeyí* is used, e.g.

dàa páa ghàma-tlón éeyí	'they join forces there'
	('they join their heads (at) the place (in question)')

This word also appears in certain fixed phrases, notably with *jíy* or *g-àa* (translatable as "be") to mean "there is ..., there exists" (see 11:§4.4), e.g.

góorò g-éeyí	'there are kola nuts (available)' ("kola nuts are there")
wíy 'ál'áadà jíy éeyí	'there is a certain custom' ("a custom is there")

The similar form *éeyin* used with an NP complement seems to mean about the same thing as the three words meaning "place" discussed in §6.2.4. Because of its relation to *éeyí*, one would predict that *éeyin* would always refer to places previously mentioned or implied in the discourse whereas the other three could refer to previously unmentioned places

(though they would not be restricted to this use any more than any other common noun); the examples I have checked bear this prediction out, but it warrants further investigation.

jée b-uwsə éeyin bíy	'then he went to (the place of) the water'
dāa páa nd éeyin-wasə wutá	'they would pour (it) in just his one place'
AUX-Ipf pour just place-his one	

The form *ée* functions as the antecedent to a headless locative relative clause, which is also the form for indirect locative questions (13:§6.5). It may also take a nominalized verb or action nominal as a complement, in which case it is best translated "in order to":

mán sən m-ée b-uws-úw	'I don't know where he went'
I know NEG-where go-ICP-NEG	
d-àa b-uws ée dlár	'he was going in order to hunt'
də-Ipf go-ICP where hunting	('... to the place of hunting')

The words *éewutáy* and *éewíya* look as if they may be lexicalized elliptical expressions meaning something like "at/to one (place)" and "at a certain (time)" respectively. If this is correct, in the latter case a locative meaning has shifted to time (cf. the phrase *à(a) 'iyká* "thereupon", mentioned above).

Chapter 9

REFERENCE, DEFINITENESS,
UNIVERSALITY, AND REFLEXIVITY1. Indefinite Referentials: *wíy*, *wíya*, *níywi*

1.1. Affirmative clauses. In affirmative clauses, the words *wíy* (m), *wíya* (f), *níywi* (pl) (henceforth "WIY") mark a discourse participant as [-definite, +referential], i.e. the participant has not been previously mentioned or implied in the discourse ([-definite]) but there exists such a referent in the universe of discourse ([+referential]).

WIY may be either a pronominal modifier or a pronoun. It has a number of English translations, including 'a, (a) certain, (a) particular, some'. Since each use of WIY in a single discourse represents the introduction of a new participant, WIY may be translated 'another, other(s)' where a participant denoted by the same noun or noun phrase exists. A common rhetorical device is to introduce two participants at the same time using WIY to mean 'one ... another'.¹ With plural referents, *níywi* always has a partitive sense, i.e. it can never designate the entire set of possible referents (cf. §4.3.2 and 10:§§2.2-3).

I have listed the examples below according to their most natural English translations to show the variety of discourse uses. This is not meant to suggest that WIY is polysemous. The semantic characterization [-definite, +referential] accounts for all these uses.²

'(a) certain, (a) particular, some'

- (1) *wiy vərka də b-uwsə mara yawun³ jee piyaw*
'a certain boy went and found an elephant sleeping'
[FIRST SENTENCE IN A NARRATIVE, SUBJECT]
- (2) *wiya də baa-z-y ghad'uw 'ənaa təra-za*
'a certain [girl] went for wood with her friends'
[FIRST SENTENCE IN A NARRATIVE, SUBJECT]

¹Contrast this with the use of two demonstratives to mean 'the one ... the other' or 'this one ... that one' when referring to two definite discourse participants. See §3.2.3.

²For the most part, I have not marked tones in this chapter. Nearly all the examples are taken from texts which were either written by Vaziya, who did not mark tone, or transcribed from recordings, where tone was not always clear. Tone plays little, if any, role in the issues covered in this chapter. I have also not supplied as extensive word-for-word glossing as in other chapters. In this chapter, the focus is on overall semantic and pragmatic interpretation rather than syntactic and morphological detail.

³This is the first sentence of a folktale narrative. *Yawun* 'elephant' is thus also [-definite, +referential] and will turn out to be an important participant in the story. The absence of WIY with *yawun* shows that having these semantic features is a sufficient, but not a necessary, condition for using WIY. Pragmatic and purely stylistic factors must also play a role. See §4, esp. §4.4.

- (3) *wiya* ma, har nj-aa bay washasham vaatlə
'some [girl] indeed, she will take five years [before she gets married]'
[TOPICALIZED NOUN PHRASE, SUBJECT]
- (4) *niywi*y kuma, tlən aa dōma taymakoo aa mir
'certain ones moreover, they render aid with money'
[TOPICALIZED NOUN PHRASE, SUBJECT]
- (5) kwaa biy dōnga duw a kwiy suw *niywi*y səbə niyma ka, ...
'if one says that [slave raiders] have caught some of our people, ...'
[DIRECT OBJECT]
- (6) too sawra səbə jee baway *wiy* dabara
'well the rest of the people came forth with a plan'
[DIRECT OBJECT]
- (7) coonakən *shim ta* *wiy*, aa kam a baybaya mil dəbətsər-ay
'now a given [man's] farm, from home it will be as much as ten miles'
[“POSSESSOR” IN A GENITIVE PHRASE]
- (8) *wiy* war jiyeyi ba na zar-uwsə aanduw “vahiya zuw”
'there is a certain festival which one calls “vahiya zuw” [“pouring the grain”]'
[COMPLEMENT TO AN EXISTENTIAL EXPRESSION]
- 'another, other, (a) different'
- (9) (“Mən zuw suw *kwambal* nuwun yika-y.”)
Kaaka tuwsə duw, “Təma-y! Mən bu-wun bala-fə *wiy*.
'([protagonist speaks] “I left my stick there.”)
His grandmother said, “Let's go! I will go cut you another one.”'
- (10) (Amma *irin wiya gwam* jiyeyi, agwan ka a zara-za aanduw “gwal”.) ...
Har yanzu *irin wiya gwam* jiyeyi maa na zara-za aandu “dangoo”.
'(But there is a certain type of locust, that locust is called “gwal”.) ...
Again there is another type of locust which is called “dango”.'
- 'one ... another'
- (11) *wiy* kwaa naya zuw na *wiy* a raa raa nuwsə ka, ...
'one [person] if he sees that the sorghum of another [person] is better than his, ...'

WIY can reintroduce indefiniteness. In the cases where I have found this, the narrative has involved certain participants, then a new fact is introduced about them, establishing some sort of new relation. Example (12) comes at a point in a history of Miya when the two original settlers, each of whom had arrived unbeknown to the other, have established contact. In example (13), a husband whose wife has moved to the house of another man

has gone to fight over the woman in order to claim her back. Note that the first example is from a historical text with specific real-world referents; the second is from a procedural text, describing events that might take place whenever that set of circumstances is met.

- (12) Aa 'iyka, kooweeneekiy sən suw ndəra *wiy*-ay.
'Thereupon, everyone knew that there was someone else [in the area].'
- (13) Too karshee-za tlən aa baa-tlən ee tiyakə, suw ndə baa də raa kalpə *wiy*.
'Well the end of it is that they will set to fighting, and it's whoever is stronger than the other [that will get the woman as a wife].'

1.2. Negative clauses. In negative clauses, the feature [referential] is negated, i.e. such clauses are interpreted as “there exists no WIY such that the clause in question applies to WIY”.⁴ It seems that negation always has the full clause as its scope, i.e. unlike English and Hausa, where a subject precedes the mark of negation and thus falls outside its scope, subjects in Miya fall within the scope of negation.

Subject

- (14) *wiy* bə-tá má-w 'no one came'
WIY come-ICP NEG-NEG
- (15) *wiy* má lya nayá sarariy na dənaw sábdoda yawá nàaza
WIY NEG can see expanse of sky because of abundance of it
'no one can see the sky because of the extent of it [the locust swarm]'
- (16) *wiy* han kəmay-tlən ma-w 'nothing spoiled'
WIY thing spoil-ICP NEG-NEG
- (17) *wiy* ta jiy b-uws ee tsəgaya tsəpər camaz-uw
WIY NEG-hort Prt. go-ICP to squat urine night-NEG
'no one should go out to urinate at night'

⁴This is in contrast to Hausa, where the words corresponding to Miya WIY retain the feature [+referential], i.e. 'I didn't see WIY' in Miya is interpreted “there is no WIY such that I saw WIY” (English *I didn't see anyone*), whereas in Hausa the word for word equivalent (*ban ga wani ba*) would be interpreted “there is a WIY such that I didn't see WIY” (English *I didn't see someone*). Hausa expresses non-existence using the universally quantified constructions (see §5 below for the corresponding Miya constructions), e.g. the Hausa sentence *ba-n ga KOWA ba* (neg.-I see EVERYONE neg.) means 'I didn't see anyone', i.e. “for all X I didn't see X”. Although there is potential for cross-linguistic difference of negative scope and hence a danger in using simple translation for elicitation (in this case, using Hausa sentences to elicit Miya), Miya speakers were absolutely consistent in using the [-definite, +referential] WIY set of determiners to translate the Hausa universally quantified expressions in negative contexts. As an incidental point, a cursory examination of a few other West Chadic languages where relevant data is available reveals that other West Chadic-A languages work like Hausa whereas other West Chadic-B languages work like Miya.

Object⁵

(18) a. à tiy má wiy-uw 'he didn't beat *anyone* (m)
 Pf beat NEG WIY-NEG

b. à tiy má wiy-a-w 'he didn't beat *anyone* (f)

(19) tam ma mən-uw kuma tə ma 'ara wiy-a-w
 if NEG me-NEG moreover he NEG cherish WIY-NEG
 'if it's not me, he won't love *any other [girl]*'

(20) mən taa má wiy ham-uw 'I didn't eat *anything*'

Subject and Object (cf. 'one ... another' in §1.1)

(21) wiy səm ma ndəra wiy-uw 'no *one* knew about *anyone else*'

Comitative

(22) mən má buw-wùn 'ənáa wiy-úw 'I didn't come with *anyone*'

I did not elicit or find any textual examples of oblique functions such as Temporal ('I never went', i.e. "I didn't go at *any time*", etc.) or Manner ("there's *no way* I can do it", etc.). Locative phrases use a special word *ángin* "anywhere", which, as far as I can determine from my materials, is not morphologically related to anything else and is not used elsewhere:

Locative

(23) mən nay-yà m(a) ángin-úw 'I didn't see him *anywhere*'

(24) míy má baa-m(a) ángin-úw 'we did not go *anywhere*'

The interpretation of plural *níwiy* in negative clauses poses an interesting problem. As I noted at the beginning of §1.1, the plural [-definite] determiner has a partitive interpretation. What, then, is the interpretation under negation? Is the whole set designated by *níwiy* negated? Is only the partitive subset negated? I do not have a clear answer, though I tend toward believing that it is just the partitive subset which is negated. The following are the only examples in my data, the first from elicited data, the second from a text:

(25) à tiy má níwiy-úw 'he didn't beat *níwiy*' (see below for interpretation)

(26) níwiy taa ma Miya-w 'níwiy have conquered Miya' (see below for interpretation)

Vaziya retranslated (25) as Hausa *bai bugi waɗansu ba* ("he didn't beat certain ones"). This translation would suggest that it is just the partitive subset that is negated ("beating some others" is not precluded). From the context of (26), it clearly means that "Miya has

⁵Note in (18) that even though referentiality is negated, gender can still be expressed, i.e. "there is no masculine/feminine X such that the clause applies to X".

not been conquered by anyone", not that "certain ones have not conquered Miya (but others have)". This suggests that the whole set is negated, not just the partitive subset. However, on one interpretation, the referential set could be everyone including the Miyas, and the partitive set could be everyone excluding the Miyas. In this case, negation of just the partitive subset would be the correct interpretation, i.e. 'no one else has conquered the Miyas'. The interaction of negation and plural quantifiers clearly needs more research.

2. "The one(s) in question": *ká, kən/kán; wánà*

The two morphemes *ká* and *kən/kán* occur throughout the deictic system associated with distal and proximal functions respectively. See the following sections for further uses of these morphemes: §3 below for demonstratives; 8:§6.3 for '*iykən/iyka* 'here/there'; 11:§1.10 for *wánkən/wánka* 'thus'; 11:§4.7 for *náy ... kən/ká* presentative sentences; and 11:4.1, 12:§2.3.1 for *jìykən/jìyká* "it's ..." used in identificational sentences. In texts from one speaker, I have also found a third, functionally related morpheme, *wánà*. In this section I will concentrate on the discourse functions of these morphemes as noun phrase operators.

2.1. *ká*

2.1.1. *Ká* as a marker of previous or implied reference. *Ká*, but never *kən/kán*, may mark a referent as having been previously mentioned or implied. Neither syntax nor semantics renders such marking obligatory, but in texts *ká* marks the majority of previously mentioned nouns which are not marked by some other determining morpheme or phrase which preempts *ká*, such as a demonstrative. In a sample of 20 pages of natural text, I came up with the following approximate counts for nouns with previously mentioned referents:⁶

No determiner:	10 nouns (only 1 is clearly a topic)
	5 nouns modified by relative clauses (3 are topics)
Marked by <i>ká</i> :	37 nouns (19 are topics)
	7 nouns modified by relative clauses (all 7 are topics)
Marked by <i>náka</i> :	11 nouns (3 topics, all temporal phrases)
(see §4.3)	8 NP's also ending in <i>ká</i> (7 appear to be topics; 2 contain relative clauses)

Of these 78 NP's having previously mentioned referents, 63 (more than 80%) are marked by some definite determiner. However, setting aside those marked by *náka* (see §4.3), the majority of those marked by *ká* are topics (26 out of 44 or, 59%). As §2.1.2 below shows, *ká* may mark a topic even where it has not been previously mentioned. However, I would suggest that this is an extension of the use of *ká*, its original function having been to mark previous reference—since previously mentioned referents often occur

⁶Approximate counts because various factors interfere with assessing the status of every NP. For example, it is not always clear whether an NP should be interpreted as definite or generic: in 'they drank beer', in a narrative where "beer" has been mentioned, does 'beer' in the sentence refer to the previously mentioned beer or beer in a generic sense? The counts nonetheless should be representative of relative proportions for various types of referential marking.

in texts as topicalized NP's, the frequent appearance of *ká* on such NP's has probably led to an extension of its function to become a more general topic marker.

Following are examples of *ká* as a previous reference marker on non-topicalized NP's of various types in various functions:

- (27) (Miy aa vaa zuw d'rr biy də sən-uwsə d'ahə.)
... D'rr naka lookaciy ka, a boo s-aa zuw ka. [SUBJECT]⁷
'(We pour *sorghum* into water and it stays over night in it.)
... At that time, *the sorghum* will have sprouted.'
- (28) (Tə jiy gəsa tsətsaliy ta niy aanguw huwsə.)
Kwaa gagəsa tsətsaliy ka ndyaam ka,⁸ ... [DIRECT OBJECT]
'(It is he [the ward head] who collects *taxes* from those of his ward.)
When he has collected all *the taxes*, ...'
- (29) (Kwaa za vuw aa aa 'an ka,⁹ ...) ... [a chicken is brought for the mother-to-be]
... A pəra njə 'an ka də rəməw. [INDIRECT OBJECT]
'(When a *woman* becomes pregnant, ...)
... One slaughters it [the chicken] for *the woman* and she eats (it).'
- (30) (Də bəbiya aagir wan lambatuw sabooda t-aa d'əma tsallee jii tiy, tə m-aa tl-uwsə dənaw.)
... Kwaa b-uwsə ka, d-aa vaa suw ndə d'rr gir ka. [LOCATIVE]
'(They dig a *hole* like a cesspit because [this type of locust] hops, it doesn't fly.)
... When [the locusts] come, they just pour into *the hole*.'

The noun marked by *ká* need not itself have been mentioned if its existence is implied by a previously introduced referent:

- (31) (Lembi ba na d-ee pər-uwsə ka washasham fərfədə.)
Kuma kwaa biy pəra ka, ... tən jiy dzararee tliwiy ka.
'(The *bull* that they will slaughter [is one] eight years [of age].)
And when they slaughter [it], ... they distribute *the meat*.'
- (32) [From a discussion about dealing with locusts, though the word "farm" has not been mentioned.]
Dabara ba na d-aa d'əməw aa niy aashiyi, waataw a d'iyə vəna shim ka də bəbiya ...
'The scheme that people in former types used, that is they would follow the edge of *the farm* and dig a hole ...' [example (30) above continues this sentence]

⁷The subject, *suw ka*, is postposed and marked by the postposed subject marker, *aa*. See 11:§1.2.1 for discussion of conditions under which subjects are preverbal or clause final.

⁸Note that the clause final *ká* marks the conditional clause, together with the clause initial *kwáa* (14:§2.1.1). There is a TWO *ká* CONSTRAINT which prevents two *ká*'s from appearing in a row. Had *tsətsaliy* 'taxes' been the last word in the clause, it could not have been marked by *ká*, but the intervening *ndyaam* 'all' has "protected" the *ká* modifying *tsətsaliy*.

⁹The *ká* here is part of the conditional clause marking, not the nominal determiner. See preceding footnote. The subject, 'am, is postposed (cf. fn. 7.)

There are at least three types of cases where the interpretation of *ká* is potentially ambiguous: (1) with genitive phrases of the type $N_1 N_2 ká$, (2) with noun phrases at the end of a clause that requires final *ká*, and (3) with topics (see §2.1.2 for discussion). In situation (1), where both N_1 and N_2 have previously mentioned referents, the scope of *ká* is ambiguous between the phrase final noun and the whole NP. Miya does not allow two consecutive *ká*'s, nor does it allow phrase internal *ká*, making it impossible for Miya to express, morpheme for morpheme, something like "THE father of THE girl". Example (33) illustrates a phrase with this ambiguous scope. Situation (2) arises because of the TWO *ká* CONSTRAINT (see fn. 8), which prevents marking of both a previously mentioned NP and the termination of particular clause types. The most frequent environment for case (2) is the end of a *kwáa* ... *ká* conditional clause (14:§2.1.1), illustrated in (34).¹⁰

- (33) t-aa tl-uwsə də b-uwsə saar aakan ha jifə na 'am ka
'he will set out and go to the house of the *husband of the woman*' (where *jifə* 'husband' and 'am' 'woman' have both been explicitly mentioned previously)
- (34) (... də rəba zuw-ay.)
Kwaa ghədz-uwsə wulum aa aa zuw ka, too ... (postposed subject—cf. fns. 7, 9)
'(... they moisten the *sorghum*.)
When *the sorghum* has turned into a fermented state, well ...'
(cf. (27) where *zuw* 'sorghum' is marked by *ká* in a similar discourse but a different syntactic environment)

Ká may mark proper nouns, even though they are inherently definite, showing that *ká* is not merely a mark of definiteness.

- (35) (Wiy wuriy jiyeyi ba na d'ənga-ya aanduw "Vəna Dingil".)
Duk bazaniy ma na d-aa bay-tla aakan ha jəfə naaza, a zay-tla də ndəma Vəna Dingil ka.
'(There is a place which is called "Vəna Dingil".)
Every virgin that is to be taken to her husband's house, one will have her go around *that Vəna Dingil*.'

2.1.2. *Ká* as a topic marker. A phrase initial topicalized NP frequently is marked by *ká*. The topic may be a previously mentioned referent, in which case there is vagueness between the function of *ká* as marking previous reference (overt or implied) or as marking topic, as in (36) below. However, *ká* frequently marks topics which are not previously mentioned referents. Indeed, in this function, the head noun of the topic may even be determined by the indefinite determiner WIY (§1) as in (37), which would be contradictory to *ká* in the "previous reference" sense discussed in §2.1.1. In the examples I have of *ká*

¹⁰The TWO *ká* CONSTRAINT applies only to phrases involving $N + ká$. In the following example, *wánka* 'like that, thus', though a combination of the preposition *wán* 'like' + *ká*, acts like a unit:

təvam kwaa naya wanka ka, s-aamir-ay 'when the women see *that*, they just run'

The same is true for the demonstrative pronouns *náka* (m)/*táka* (f)/*níyka* (pl) 'that one/those' and the locative pro-form 'iyká 'there' (cf. example (53) below).

marking new referent topics (all from texts), it is restricted almost entirely to either temporal phrases, as in (38-39), or to pseudo-cleft-like constructions beginning *ham ba ...* 'the thing that ...', as in (40). I found no examples of new referent concrete nouns marked this way as topics. Note that although the temporal and pseudo-cleft-like topics usually contain relative clauses, it is not the presence of the relative clause itself which conditions the presence of *ká*—non-topicalized NP's containing relative clauses usually do not have a phrase final *ká* (10:§5.2).

- (36) Aa 'iyka, ham ba na d-aa d'əma niy baahə¹¹ njə *maahə ka*, nj-aa kəna dlərkiy.
'Thereupon, what the family will do [is that] she *the mother*, she will buy a chicken.'
- (37) *wiy lookaciy ka* a rəma rəma bahiy kidi
'sometimes [the locusts] will eat [the crops] up to three [times]'
- (38) *mukwa na d-aa saa tal ka*, də d'əma sadakə
'the day that one will drink beer,¹² one will make a sacrifice'
- (39) *Lookaciy ba aanduw a zaa suw yaayee ka*, də kiy-uwsə aa niy azək-uwsə.
'At the time that one says [a child] has reached weaning, his uncles take him.'
- (40) *Ham ba zay d-aa d'əma wanka ka*, sabooda niywiw tlən aa mugunta.
'The thing that causes that they do that, [it's] because some [people] have evil ways.'

The topic marking function of *ká* has been extended beyond noun phrases to various adverbial clause types, particularly conditional (14:§2.1.1), 'before' clauses (14:§4), and a few others.

2.2. *kən/kən*. The proximal demonstrative *nəkən* 'this one' (§3.2.1), the locative '*iykən* 'here' (8:§6.3), and the pro-manner adverbial *wánkən* 'thus' (11:§1.10), end in a formative *kən*. The low tone form of *kən* used independently occurs only as part of proximal presentative sentences (see 11:§1.10 for examples). The distribution of the high tone *kən* is also restricted. In all but two of the examples I have found, high tone *kən* is a topic marker on a noun phrase introduced by a proximal demonstrative. In this topic marking usage, *ká* and *kən* are in complementary distribution: in addition to the broader topic marking function of *ká* described in §2.1.2, if a topicalized NP is modified by a distal demonstrative ending in *-ká*, the topic marker will be *ká* (see (50, 51, 53) below for examples), whereas a topicalized NP containing a demonstrative ending in *-kən* will be marked with *kən*, as in (41).

¹¹Note that the phrase *ham ba ...* 'the thing that ...', which functions in the pseudo-cleft (12:§4) construction, is not marked by *ká*, whereas it is in (40) below. This appears to be a stylistic choice on the part of the narrator, not something dictated by grammar or discourse structure.

¹²The text mentions beer earlier. *Təl* 'beer' in this phrase is thus ambiguous between "the (previously mentioned) beer" and "(generic) beer" (cf. fn. 6). On the interpretation "the (PM) beer", *ká* would be vague between functioning as a topic marker for the full temporal phrase or as a determiner on *təl* because of the TWO *ká* CONSTRAINT discussed above.

- (41) *nəkən biy kən*, a kamaata miy buwaa-ma ndyāan ... miy jiy dafa bahiy aatu
'this water, we should all go ... and dig out [the waterhole] some more'

The only two examples I have found where *kən* is not functioning as a topic marker of a *X-kən* modified phrase are given in (42) and (43). In the first, where *kən* appears together with *nəná* 'today', there is no proximal demonstrative, but this word is semantically (and perhaps even morphologically) akin to the proximals. Example (43), which is unique in my materials in that *kən* is not used in conjunction with any other deictic word, is vague between whether *kən* is a topic marker (cf. §2.1.2) for an entire phrase or a previous reference deictic for the word *dāy* 'inselberg', which has been previously introduced.

- (42) Too *nəna kən* njə ma s(aa) aabiy d'əh-uw.
'Well today indeed she will not drink water out of it.'
- (43) Saa'i naka *acəbə d'ay kən*, waatoo ndyaan dənanoo kurmi kawai.
'At that time at the base of the inselberg, well it was all trees [it was] only forest.'

2.3. *wánə*. One speaker, from whom I have only a recorded text but no elicited data, used a word *wána* several times. This word is always phrase final in a noun phrase with a previously mentioned referent, suggesting that it functions like *ká* as described in §2.1.1, though in one case, (46), it co-occurs with *ká*. It is never used with a topicalized noun phrase.

- (44) də kiya '*azurfa wana* də z(a) aataa kən-was-ay
'he took the silver [ring] and put it on his hand'
- (45) miy gəm suw 'ənaa *Mamman wana-y*
'we met up with that Mamman'
- (46) d'ə d'ənga *wun wana* ka duw ...
'she said to that girl that ...'

3. Demonstratives

The demonstratives may be either pronouns or nominal modifiers. As modifiers, they are initial in the noun phrase with a few exceptions which appear to be fixed phrases. See 10:§2.2 for further discussion of noun phrase syntax with demonstratives.

3.1. *náka* (m), *táka* (f), *niyka* (pl)

3.1.1. *náka*, etc. as distal demonstratives. The demonstratives ending in *-ka* are the distal demonstratives. This function correlates with the use of phrase final *ká* in presentative sentences (11:§4.7) pointing out distant objects as well as the final *-ká* in '*iyká* 'there'. See 10:§2.2 for examples of the distal demonstrative function.

3.1.2. *náka*, etc. as meaning "previously mentioned". The demonstratives ending in *-ká* may indicate previous reference. Here, their function seems to overlap with

the similar use of *ká* alone, though *ká* is far more frequent (see §2.1.1 for a representative count from texts). There is undoubtedly some difference in meaning between *náka* and *ká*, reflected by my translations using 'that/those' below, but it is not one of definiteness or distance. Unlike *ká*, the demonstratives never function as topic markers, though they may appear in topicalized noun phrases. In topicalized noun phrases, *náka* often co-occurs with phrase final *ká*, giving the impression that the determiner is a discontinuous marker *náka* ... *ká* (see (50) below for an example). However, the very rare co-occurrence of the two morphemes in noun phrases which are not obviously topicalized compared to their frequent co-occurrence in topicalized phrases indicates that they must be fulfilling distinct functions in the latter type of phrase.¹³

- (47) Daga nay-uws aa aa *naka sən n-aaGituwa*,¹⁴ jee dɛŋga-ya, "Barka aa buwakə."
'When *that man from Gituwa* saw him, he said to him, "Greetings on your arrival."
- (48) Na bu-wun kiya ndə *naka* n-aatiyra yawun.
'I'm going to get *that one* [a stick left behind] of the place of the elephant.'
- (49) Daga jiy naya-za aa lee naaza,¹⁴ lee na *taka 'am* ... duw ...
'When her son saw her, the son of *that woman* ... said ...'
- (50) *Niyka wutləmiy kideeniy ka* də baa-flən Wushir.
'*Those three boys* then go to Siri.' [italicized phrase is a topic]
- (51) [Title of the text: "Yaddeena d-aa dɛma 'awree n-aashiyi"]
... Dɛɛ *naka lookaciy ka* tiyaka 'awree mayyuw.
'["The way one did traditional marriage"] ... At *that time* there was no divorce.'
- As noted in 10:§2.2, the demonstrative may follow the noun in a restricted class of expressions. All examples available to me have the form TIME + DEM:
- (52) Too mukwa na d-aa dɛma war ka ... a bay-tla *muku taka* akan ha jifə naaza.
'Well on that day that the festival will be done ... one will take her *that day* to the house of her husband.'
- (53) Too, saa'iy baa də taa tiy aa Luwga, too *saa'iy naka ka*, waatoo, mən may samaariy.
'Well, at the time that Luga won [the chieftainship], well *at that time*, that is, I was the leader of the youth.'

¹³ Following is the only clear example I have found where the demonstrative and *ká* co-occur with a non-topicalized NP:

aa 'iyka də naya *taka 'an ka-y* 'thereupon he saw *that woman*'

This in contrast to Hausa, where some speakers will hardly accept phrases containing a demonstrative where the phrase does *not* end in the ²n/ɸ corresponding to Miya *ká*, e.g. *wannàn gidàn* vs. [?]*wannàn gidaa*.

¹⁴The subject of the first clause is postposed. See fn. 7.

In the last example, the time expression is topicalized and cooccurs with *ká*. Note that the TWO *ká* CONSTRAINT does not apply to the *-ká* portion of the demonstrative (cf. fn. 10).

3.2. *nákən* (m), *tákən* (f), *níykin* (pl)

3.2.1. *nákən*, etc. as proximal demonstratives. The demonstratives ending in *-kən* are the proximal demonstratives for visible objects. This function correlates with the use of phrase final *kən* in presentative sentences pointing out nearby objects (11:§4.7) as well as the final *kən* in 'iykən 'here' (8:§6.3).

An interesting case of the proximal use is the termination of two texts. The subject of one text is *wār* 'festival', the other 'awree 'marriage', both masculine words. I am not sure what the generic word for a text is in Miya, but in ending, in one case Vaziya used the masculine demonstrative and in the other the feminine:

- (54) a. Tòò shíykèenán, *nákən* mbà-ta súw. 'Well that's it, *this one* is finished.'
b. Tòò shíykèenán, *tákən* mbà-tla súw. (same meaning)

3.2.2. *nákən*, etc. meaning "previously mentioned". The demonstratives ending in *-kən* indicating previous reference are far less frequent in occurrence than either *ká* or the demonstratives in *-ká*. On the basis of the few examples available, it is not possible to draw any firm conclusions about how these three ways of marking previous reference differ in meaning. However, it may be that with the *-kən* demonstratives, there is a sense of continued or present relevance as opposed to past relevance or relevance to a specific point in the narrative for the *-ká* demonstratives. The latter comment would apply to all the examples in §3.1.2. Compare these with the following:

- (55) ... *nakən war* ba na zar-uws aanduw "wuyak(a) aadəbə", a dɛm-uws aadama wutləmiy səba ... washasham dirɸitim bahən vaatlə
'... *this festival* which one calls "wiyak-aadəbə" [?"jumping in the arena"], one does it for boys who are ... 15 years old'

Here, the demonstrative refers to the festival in general, not specific events within the festival. Cf. also (41) above, which comes from a dialogue between two men about their drinking water.

3.2.3. *nákən* ... *nákən* 'this one ... that one'. Corresponding to the use of WIY ... WIY to mean 'one ... another' when two similar referents are introduced simultaneously (cf. §1.1), two demonstratives can be used in reference to known participants to mean 'this one ... that one', 'one ... the other'. All the examples I have found in texts use the *-kən* demonstratives.¹⁵

- (56) də buwa-tlən jiy payaw, *nakən* aa bangwar tuwsə, *nakən* aa bangwar tuwsə
'they went and met, *this one* with his quiver (and) *the other* with his quiver'

¹⁵This corresponds to Hausa, where the similar function uses *wannan* ... *wannan*, i.e. the proximal demonstratives. Hausa differs from Miya in also using this demonstrative form to mean previous reference, whereas Miya uses the distal form (§3.1.2).

- (57) Jee faara takay aa Mangila 'ənaa Gituwa:
Nakən duw, "Mən də faara buwahiyu-wun!"
Nakən duw, "Mən də faara buwahiyu-wun!"
 'Then Mangila and Gituwa started arguing: (see fn. 14 for word order)
This one says, "I was the first to come!"
That one says, "I was the first to come!"
- (58) *Niykin* də baa-tlən aakan ha *niykin*,
niykin də baa-tlən aakan ha *niykin*.
 'These [people] went to the house of those [people], (and)
 those went to the house of these.'

Similarly, 'iykən 'here' can be repeated to mean 'here ... there':

- (59) "Nay 'iykən." Də nayaw. "Nay 'iykən." Də nayaw.
 "Look here." He looked. "Look there." He looked."

4. Noun Phrases without Determiners vs. Noun Phrases with Determiners

The majority of nouns that appear in discourse have no overt indefinite or definite determiners of the types described in §§1-3.¹⁶ One must therefore ask what factors allow a noun to appear with no overt determiner. There are three broad factors which account for such cases: referential nouns determined by something other than one of the determiners described in §§1-3 (§4.1); nouns used generically (§4.2); and nouns which are inherently definite (§4.3). There are some residual cases which I cannot explain where noun phrases lacking overt determiners appear in similar contexts to noun phrases with determiners.

4.1. Referential nouns with specifiers other than determiners

4.1.1. Genitive phrases as determiners. Referential nouns are nearly always marked as such in some way. The majority have either a referential indefinite determiner (§1) or some definite determiner (§§2-3). Another large class comprises nouns which are N_1 in a genitive construction as in the following examples:

- (60) *shím ta wiy* 'somebody's farm'
- (61) a. *kwaa dənga duw səm də miy-uwsə, koo shim tuwsə ta bay gan mil dərbitim ...*
 'if one says that a man has died, even if his farm is as far as 10 miles ...'

¹⁶Of the common nouns appearing in ten pages of running text, the following figures emerged:

some sort of overt determiner (indefinite, definite, universal quantifier)	47
no overt determiner	130
TOTAL	177

However, of the nouns without an overt determiner, 44 are N_1 of a genitive construction and thus have N_2 as their determiner. In most of the examples, N_2 is a proper name, a pronoun, or a noun with a definite determiner. Thus, over half the nouns in the sample (47 + 44 = 91 out of 177) are determined in some way.

- b. *daga dam eewuya, 'an ta sən n-aaGituwa* də baa-z ee kuwa aabiy
 'one day, the wife of the man of Gituwa went to draw water'
- (62) a. *kwaa piya aakam aa jifə naaza ka, a tarde 'an tuwsə ma n-aakam-uw*
 'when her husband returns home, he will find that his wife is not at home'
- b. *də dzara-tlən-ay, sən n-aaMangila* də b-uwsə h-uws-ay
 'they separated and the man of Mangila went to his place'

In the examples in (60) and (61a, b), N_1 has not been previously mentioned. However, no indefinite determiner (§1) is needed with N_1 since the noun is determined by an indefinite referential N_2 in (60) and by definite N_2 's in (61), appearing as a pronoun in (61a) and as a proper noun in (61b). In (62a, b), N_1 has been previously mentioned, hence is definite. However, no definite determiner is needed for the same reason no determiner is needed in (61a, b).

Though N_1 in a genitive construction is rarely marked by a determiner, determiners are not syntactically precluded from genitive constructions:

- (63) *kwaa biy dənga duw a kwiy su niywiw səbə niyma ka ...* [Indefinite]
 'if it is said that one has captured some people of ours ...'
- (64) *daga nay-uws aa naka sən n-aaGituwa, jee dənga-ya ...* [Demonstrative]
 'when that man of Gituwa saw him, he said to him ...'
- (65) a. *jee kiya gwalfə də tsaa Gituwa, waataw, ngəna gwalfə ka jii Sarkin Duwtsiy* [PRM]
 'then they took the chieftainship and gave it to Gituwa, that is, the name of the chieftainship is "Sarkin Duwtsiy"'
- b. *too niy azuwriya ha-fə ka* də kiya gangan [PRM]
 'well those of your clan begin drumming'
- c. *də b-uwsə saar aakan ha jifə na 'an ka* [PRM]
 'he goes off to the house of the husband of that woman'

In terms of function, the indefinite determiner in (63) forces a partitive interpretation, which would not clearly emerge from the genitive NP without a determiner (see §4.3.2). The function of *naka* in (64) is not clear; the sentences preceding and following this one have a phrase with no determiner, *sən n-aaGituwa*, which is definite in all its occurrences here. In (65b), *ká* probably functions as a topic marker (§2.1.2), but in (65a, c) it is a mark of previous reference (see §2.1.1 and below for further discussion).

The problem in all these examples is knowing whether the determiner has in its scope just the noun to which it is adjacent or the entire NP. For phrase initial determiners as in (63) and (64), it is not clear that there would be any logical difference between just N_1 being determined or the whole NP—the whole NP will be definite or indefinite depending on the definiteness of the head (N_1). Where the determiner is phrase final as in (65), it appears that the determiner may modify just N_2 or the whole phrase, but not just N_1 . In

(65a), *gwàlfə* 'chieftainship', but not *ngən* 'name', has been previously mentioned, and the *ká* here cannot be a topic marker since the phrase is actually a *focused* subject, as shown by the *jíy* (5:§2.2.4, 12:§2.2.1), hence *ká* must apply only to N₂. In (65b, c), neither syntax nor pragmatics reveal the scope of *ká*: in (65b) *ká* cannot be a modifier of only N₂ since it is a personal pronoun and is thus inherently definite and referential, but here *ká* seems to be a topic marker and probably therefore takes the entire NP, not just N₁, into its scope; in (65c), both N₁ *jífə* 'husband' (in the context, not actually "husband", but rather the man to whom another man's wife has gone to live with) and N₂ 'am' 'woman' are definite. Because *ká* is adjacent to the latter, intuitively it would seem to be this N to which it applies. I know of no way to prove, given present data, that it does not apply to N₁ or to the whole phrase, but I have found no examples parallel to (65a) where *ká* could apply to N₁ only.

4.1.2. Relative clauses as determiners. In contrast to other Chadic languages, including Hausa, noun phrases containing relative clauses usually do not contain other determiners. The presence of a relative clause does not preclude other determiners, as the NP initial *náka* in (66) shows, and a common way to introduce new elements into a narrative is to use a presentative sentence with a noun modified by an indefinite determiner and an extraposed relative clause, as in (67):

(66) *too naka tal ba na d-aa biy 'ara ka, t-aa 'ar(a) ee-wutay 'ənaa niya zək-uwsə*
'well, *that beer that he will cook*, he will cook it in conjunction with his uncles'

(67) *wiy war jiyeyi ba na d-aa dəm-uwsə*
'there is *a certain festival* that they do' (lit. '*a certain festival* there is that they do-it')

Nonetheless, few examples of noun phrases containing relative clauses that I collected through elicitation contain any determiner (see 10:§5.2 for examples). In texts, aside from a small number of examples like that in (66) with a demonstrative, most cases of determiners in NP's containing relative clauses fall into two classes: those with an indefinite determiner as in sentences of the type in (67) and topicalized NP's ending in *ká*. As it happens, NP's containing relative clauses are often placed sentence initial as topics (cf. (66)), which gives the impression that NP's containing relative clauses tend also to have a previous reference marker. However, non-topicalized NP's with relative clauses rarely have a determiner of any kind:

(68) *də baa-za aakan ha jifə baa njə d-aalu-wasə*
'she goes to the house of *the man whom she loves(-him)*'

(69) *miy aa zaa baa də faara buwahiy-uwsə*
'we will install [as chief] *the one who was first to come*'

4.1.3. Numerals as determiners. There is a tendency for at least indefinite determiners (§1) not to co-occur with numerals used as nominal attributives:

(70) a. *Farkoo taariyhiy na Miya, səbə tsər də faara buwahiya-tlən.*
'The beginning of the history of Miya, *two men* were the first to come.'

b. *Waatoo sən wutə də faara buwahiy-uwsə də tsəg-uwsə aaMangila.*
'That is, *one man* was the first to come, and he settled at Mangila.'

(71) a. *bazaniy wutə njə g-aa paa dzafə har vaatlə*
'*one/a girl* (she) may collect as many as five men [as suitors]'

b. *wiya 'am, kaafin miya-za, nj-aa kəna dzafə vaatlə*
'*a woman*, before her death, she may marry five husbands'

The sentences in (70) come from the beginnings of narrative histories and are the first mentions of the referents. In a number of other narratives, the first mention of new characters uses the indefinite determiners. The sentences in (71) have NP's in almost identical contexts, one uses the numeral *wútə* 'one', the other the definite determiner *wiya*.

I doubt, on the basis of data from other Chadic languages, that co-occurrence of numerals and indefinite determiners results in ungrammaticality, but I have no examples from texts or elicited data of the type (?)*niywiyy səbə tsər* 'a certain two men' (cf. the grammatical Hausa phrase *wad'ansu mutane biyu*). I do have examples of demonstratives and numerals co-occurring, e.g. *niykin ciw dərbitim* 'these ten goats'.

4.2. Generic nouns. Nouns used in a generic sense have no determiners:

(72) **Generic Subject**

a. *kwaa zaa vuw aa aa 'am ka, wiy han jiyeyi ham ba na d-aa dəmaw*
'when *a woman* becomes pregnant, there is a thing that is done'
(see fn. 14 for ordering of subject in the first clause)

b. *kwaa mba-uwsə washasham ka, ...*
'if *the rainy season* ["the" in generic sense] is good, ...'

c. *aa 'iyka səbə d-aa dada buwahiya-tlən*
'thereupon *people* came in great numbers [to settle at Miya]'

(73) **Generic Object**

a. *də baa-z(a) ee kuwa aabiy* 'she went to draw *water*'

b. *ee doona tliwiy n-aatsakən* 'to hunt *wild animals* [animal of-bush]'

c. *də təkəna-ya gaangan* 'they beat *drums* [drum] for him'

d. *nj-aa kəna dlərkiy* 'she buys *a chicken*'

e. *mukwa na d-aa biyu saa tal ka, a tsaa ngən muku taka*

'on the day that they will drink *beer*, they will perform the naming [will give *name*] on that day'

- f. vuv də gwarza-za-y də vərka wun bazaniy
'her pregnancy reached its term (and) she bore a girl'¹⁷

(74) **Generic Locative**¹⁸

kwaa piya aakam aa jigə naaza ka 'when her husband returns home'

(75) **Generic Genitive**

- a. tliwiy n-aatsakən 'wild animal(s)' ('animal of-bush')
b. lookaciy ba tsətsaliy 'time for tax(es)'

Generic genitives comprise the important large class of lexical compounds. See 10:§3.1.2.

4.3. Inherently determined nouns. If a noun is inherently determined in some way, e.g. because its referent is unique, it will not normally take any determiner. I identify two categories of inherently determined nouns.

4.3.1. Unique or inherently definite nouns. In this category are proper names,¹⁹ universal uniques such as "the sun", and culturally determined uniques such as "God" or "the chief".

- (76) tir kwiyy say 'the new moon has appeared' ('moon has caught')
(77) də baya də malvə 'they bring [tax money] to the chief'
(78) ghənsə j-aa-taa dawaw 'it is raining' (lit. 'God is descending', perhaps short for *abiy ghənsə* 'water [of] God')

4.3.2. Non-partitive plurals. The plural indefinite determiner *n̄ywiyy* (§1) always has a partitive sense. Thus, this determiner cannot modify indefinite plural nouns, whether referential or not, when they have an exhaustive (non-partitive) sense. I include non-partitive plurals under "inherently determined nouns" because, if the group includes all possible members of the set, then set membership identifies the individuals in the set.

¹⁷Although *wun bazaniy* 'daughter' here is clearly referential as soon as it is introduced into the narrative, in this context it must be generic, i.e. it refers to a *type* of child, not a specific token. It is not definite since this is the first mention; a child may be an implied referent from a pregnancy, but specifically a 'daughter' is not implied. Nor is it indefinite referential, at least as Miya *wiy* is used. This morpheme implies not the prior existence of the referent but its new introduction into the discourse. In the present case, introduction into the discourse is introduction into the world as well.

¹⁸Nouns in the locative form (8:§6.1), i.e. used as locative adverbials as opposed to concrete nouns, seem never to have definite or indefinite determiners. This has typological correlates in other Chadic languages (Schuh 1983) and outside Chadic (Greenberg 1978).

¹⁹As pointed out at the end of §2.1.1, example (35), proper nouns can be marked with the previous reference marker *kā*. However, proper names used in a specific referential sense do not allow the full range of determiners available for common nouns. Cf. German, where the definite article, but not other determiners, can be used with proper names to convey a sense of affection, e.g. *der Rudi* 'sweet little Rudi'.

- (79) a. kwaa piya ndyaan aa mukwa aa səbə ka, ...
'when people have all finished returning from dry season work, ...'
(see fn. 14 for ordering of subject)
b. miy aa dəma aacam naama 'ənaa təvam
'we do our (farm)work with women'

4.4. Referential nouns without specifiers

4.4.1. Indefinites. In some cases, it is not clear why a non-determined NP is chosen rather than an NP marked with an indefinite determiner. Compare the following examples with (1-8), where NP's are marked by indefinite determiners in similar contexts:

- (80) kwaa dənga duw səm də miy-uwsə, koo shim tuwsə ta bay gan mil 10 ...
'if it is said that a man has died, even if his farm is 10 miles away ...'
(81) da farkoo jifana kwaa naya wun gyabiya ka, tə tan s-aaluw-za ka ...
'to begin if a man sees a young woman, if he likes her ...'

In these examples, the italicized noun phrases are not marked by any determiner, but they introduce new participants which are referential, as the personal pronouns in the subsequent clauses show. There are two possible interpretations here: (1) in introducing new participants, the indefinite determiner is optional; (2) when speaking generically, as in a procedural text, a speaker can choose to introduce participants generically, i.e. without any determiner (cf. §4.2), or referentially, i.e. with an indefinite determiner (as in §1.1). I lean toward the latter interpretation because, for the limited number of texts at my disposal, participants in narratives with unique reference (history, tales) are always introduced with some sort of determiner, usually the indefinite referential *Wiy*.

4.4.2. Definites. Definite referential nouns are usually marked either with a definite determiner, such as a demonstrative, or have some postnominal modifier such as a genitive phrase or relative clause (§§2.1.1, 3, 4.1). However, nouns which are clearly definite but have no modifiers occur fairly frequently in texts.

- (82) ("Mən aaluw mən hadēe vərka nuwun 'ənaa wun tafə.")
... A 'iyka də dənga bahiy-uws aa a (1) vərka aadkuna a njə bazaniy ka.
... Tə (2) vərka də bəla gyannoo-wasə ...
'([A boy's father says to a girl's father] "I want to join my boy with your girl.")
... Thereupon (1) the boy keeps going to the place of the girl.
... He (2) the boy says to his friends ...'
(83) (Wiy vərka də b-uwsə mara yawun j-ee piyaw.)
... "Na bu-wun kiya ndə naka n-aatiyra (1) yawun."
... də mara (2) yawun s-aataa sənaw-ay
'(A certain boy went and found an elephant sleeping.)
... "I will go and get that one [ref. to a cane] at the place of (1) the elephant"
... he found (2) the elephant sleeping.'

The first example is from a procedural text about marriage practices, the second from a folktale narrative; the italicized participants are central to the discourses in both cases. In the example sentences, they are fulfilling a variety of syntactic functions. Elsewhere in texts, there are parallel cases where nouns do have some sort of definite determiner (cf. §§2.1.1, 3.1.2). The choice to omit any definite determiner thus seems to be an option which is not governed by categorical rules of syntax, function, or discourse organization.

5. Universality

5.1. "Distributive" universals: *kóo-/kándà-...-éekiy* 'every, each'. Universally quantified noun phrases use the affixes *kóo-/kándà-...-éekiy* together with variants of the question words (12:§2.1.1) as follows. The non-prefixed forms in parentheses are used only as the heads of generic clauses (14:§2.3):

Q word	Universally quantified phrase	
wàa, wèe 'who?'	kóo-wèe-n-éekiy (m or unspec. gender) kóo-wày-y-éekiy (f) (w-éekiy = wèe-n-éekiy)	'everyone'
màa 'what?'	kóo-mee = kóo-m-èekiy = kóo-mèe-n-éekiy (m-éekiy = mèe-n-éekiy)	'everything'
wàyna (m) 'which ...?'	{ kóo- kándà- } wèe-na X (m) (-éekiy) e.g. kóo-wèe-na kám kándà-wée-nà bá shim-éekiy	'every X (m)' 'every house' 'every farm owner'
wàyya (f) 'which ...?'	{ kóo- kándà- } wày-ya X (f) (-éekiy) e.g. kóo-wày-ya ghəruw kándà-wày-ya bazaniy-éekiy	'every X (f)' 'every cow' 'every young woman'
yíkwa 'where?'	kóo-yùkwá = kóo-yùkw-éekiy (yùkw-éekiy)	'everywhere'
ghájà	kóo-ghájà = kóo-gháj-èekiy (gháj-èekiy)	'anytime, always'
wánkwa	(wánk-éekiy)	'any way, however'

A universally quantified expression requires only one of the prefixes *kóo-/kándà-* or the suffix *-éekiy*, but in my data, most such expressions have one of the prefixes as well as the suffix. The prefix *kóo-* is an obvious recent borrowing from Hausa, and in the case of 'everything', the entire *kóo-mee* part may be from Hausa (cf. Miya *màa* 'what?', with the vowel *aa* instead of *ee*). *Kándà-* may also be an innovation, though I have no suggestions as to its source. The original marker of universal quantification is probably the suffix *-éekiy*, which appears to be cognate with the corresponding morpheme *-kee* in Ngizim (e.g. *tàmkée* 'everything' < *tàm* 'what?'—cf. Schuh 1972:188-193).

These universally quantified expressions can appear in all NP positions of simplex clauses in the meaning 'every ...':

(84) Subject²⁰

- a. *kóowèenéekiy* bə-tá s-ay 'everyone came'
b. *kóomee* kəmay-ílán s-ay 'everything was spoiled'
c. *kóowàyyéekiy* nj-aa díya dzàm 'everyone (f) will cook beans'

(85) Direct Object

- a. Kásham g-àa zara *kóowèenéekiy* 'Kasham will call everyone'
b. á tíya *kóowèena* várka 'he will beat every boy'
c. mán tàa *kóomèekiy* 'I ate everything'

(86) Indirect Object

- t-àa tsáa *koowàyya wín-éekiy* gòoróo 'he will give every girl kolas'

(87) Instrument

- à wan kán-wàs áa àa *kóomèen-éekiy* 'he filled his house with everything'

(88) Locative

- míy nay *kooyùkwá* 'we looked everywhere'

(89) Temporal

- à náy-mà *kóogháj-éekiy* 'he saw us all the time'

A question which I cannot answer is how universally quantified noun phrases are interpreted in negative clauses, i.e. I am not sure whether a sentence like

mən nay ma kooweeneekiy-uw
I see NEG everyone-NEG

would be interpreted (1) "for all X I didn't see X" (equivalent to English *I didn't see anyone* or *I saw no one*) or (2) "not [for all X did I see X]" (equivalent to English *I didn't see everyone*). The natural way for Miya to express interpretation (1) is to use the indefinite referential determiner, which I interpret as negating the referentiality, i.e. "there exists no X such that I saw X" (§1.2). This suggests that interpretation (2) would probably be the first interpretation for the sentence here, but I have no examples of this type either from texts or elicited data. (See fn. 4, which notes that some Chadic languages use universal quantifiers as the natural way to achieve interpretation (1)).

I interpret these quantifiers as *distributive* universals like English 'each, every', i.e. they range over the individuals in the set of all possible referents rather than take the set collectively. There are three reasons for this interpretation: (1) agreement is singular (cf. (84a, c) and (93) below, but cf. also fn. 20), and, as far as my data goes, there are no

²⁰The verbs in these examples are intransitive and have a suffixed Intransitive Copy Pronoun (ICP). With [+human] 'everyone', the ICP shows masculine singular agreement, whereas with [-animate] 'everything' it shows plural agreement. The latter correlates with the agreement pattern for the corresponding question word *màa* 'what?' and the generic words for 'thing' (8:§2.3.3).

morphologically plural forms;²¹ (2) they are always bound to noun phrases which could be filled by lexical count nouns (except for the MANNER form, which can be interpreted distributively as “each way, any way”), and where lexical noun phrases appear, they are always singular; (3) morphology based on question words suggests a semantic origin in disjunctiveness, i.e. ‘who did you see?’ can be reinterpreted as a Boolean expression ‘did you see X or did you see Y or did you see Z ...?’ (with logically inclusive ‘or’). This semantic interpretation correlates, in turn, with the morphosyntactic relationship in Miya between concessive conditionals and yes/no questions (‘even if I see him’ = ‘if I see him or if I don’t see him’ vs. ‘did you see him?’ = ‘is it the case that you saw him or you didn’t see him?’) and between generic conditionals and word questions (‘whoever I see’ = ‘if I see X or if I see Y ...’ vs. ‘who did you see?’ = ‘did you see X or did you see Y ...’). See 14:§§2.2-3 for further discussion of conditionals and universal quantification. The characteristics of the *distributive* universals are in contrast to the *collective* universal quantifier *ndyâam* ‘all’, discussed in the section immediately below.

5.2. “Collective” universality: *ndyâam* ‘all’. The word translatable as “all” contrasts morphologically, syntactically, and semantically with the distributive quantifiers described in §5.1. *Ndyâam* is morphologically invariable. As a nominal modifier (if, in fact, it really can function syntactically as one—see below), it is used with plural or mass nouns (89-90). These examples show as well that the position of *ndyâam* is relatively free. One might interpret this as a type of quantifier float, but as I will try to show in the examples below, the origin of *ndyâam* in a noun phrase is questionable.

- (89) a. ndyâan sɔbɔ = sɔbɔ ndyâan = sɔbɔ ndyâan-tlɔn ‘all the people’
 b. mîr ndyâan = mîr ndyâan-wasɔ ‘all the money’²²

- (90) kwaa g-aa wasəm ka, *ndyaam sɔbɔ* ka də piya aakam-ay
 ‘when a year passes, *all the people* return home’

Many cases of what look like *ndyâam* used as a quantifier modifying a noun or as a pronoun could be equally well interpreted as its being used as a quantifying manner adverb (11:§1.10) which includes a noun in its scope. The examples in (91) and (92) are arranged roughly such that in the first ones, *ndyâam* looks like a nominal quantifier (in 91) or a pronoun (in 92), whereas in the last ones, it is almost certainly adverbial, with the verb or the whole verb phrase in its scope:

- (91) a. də saa fiy ndyaam-ay ‘he drank all the gruel’
 Sjn drink gruel all-Tot (or ‘he completely drank the gruel’)

²¹That is, I was unable to elicit an equivalent to Hausa *koowàd’annee* ‘each and all’, which is derived from the interrogative *wàd’annee* ‘which ones?’. The Hausa form seems to exist mainly because of the transparent morphology of adding *koo-* to an interrogative to make a universally quantified expression, and it is possible the Miya could do likewise. Even in Hausa, it is not clear what meaning difference, if any, exists between *koowàd’annee* ‘each and all’ and the morphologically singular counterpart, *koow’annee* ‘each one’.

²²I seem not to have elicited a phrase *ndyâam mîr* with the quantifier preceding the noun, and there are no examples in texts with this order. On the basis of the attested phrase in (89a) with a count noun, there is no reason to believe that this would not be a possible construction.

- b. kaafin naka sɔnoo fɔdɔ ka, a rɔn suw shim ndyaam-ay
 before those days four PRM Ft eat Tot farm all-Tot
 ‘before those four days are up, [the locusts] will eat the entire farm’
 (or ‘... will completely consume the farm’)
- c. kwaa piya ndyaan aa mukwa aa sɔbɔ ka, ...
 when return all from dry season PS people PRM
 ‘when the people have all returned from dry season work ...’
 (or ‘when the people have made a complete return ...’)
- d. kwaa biy ndɔra aa memiy ndyaan gabaa-ɗaya ka, ...
 when Prt heal PS sore all completely PRM
 ‘when the sores have completely healed ...’
 (or ‘when all the sores have healed ...’)
- e. baayan kwaa mbaa zabɔ ndyaan ka, ...
 after when finish dancing all PRM
 ‘after they have completely finished the dancing ...’
 (or ‘after they have finished all the dancing ...’)
- f. miy buway aawasɔ miy lɔmb-uwsɔ ndyaam ‘eeyi
 we bring grass we cover-it all there
 ‘we bring grass and we completely cover it [the fermenting grain] there’
 (or ‘...we cover it all’)
- (92) a. tɔ kuma malvɔ kwaa paa ndyaan ka, də kiya ...
 he also chief when collect all PRM Sjn take
 ‘he also, the chief, when he has collected all [of the taxes], he takes it ...’
 (or ‘...he has completely collected [the taxes]...’)
- b. aynihiy kam-ma wiy galuw dzɔhɔ mayyuw, ndyaan meemeeniy kaway
 origin house-our a slave masc. there isn’t all Miyas just
 ‘as for the origin of our clan there are no slaves, all are just Miyas’
 (or ‘... it is completely [composed of] Miyas’)
- c. niy gado niy manniy niy jeeriy də shaafee ndyaam aa ziynaariya
 & Co. bed & Co. ? & Co. chair Sjn paint all with gold
 ‘things like beds and ? and chairs, they had been completely gilded with gold’
 (or ‘... they had all been gilded with gold’)
- d. saa’iy naka acɔbɔ ɗay kɔn, waatoo ndyaan ɗananoo kurmiy-kurmiy
 time that base mountain the i.e. all trees forest-forest
 ‘at that time at the base of the mountain, that is, it was completely forested with trees’
 (or ‘... all was trees and forest’)

Note that in (91c), *ndyâam* comes immediately after the verb and is separated by an adverb from the postposed subject, which is the noun phrase it must be interpreted as quantifying. In (91f), the NP which *ndyâam* would quantify is a clitic on the verb whereas the quantifier is syntactically free; this means that either it forms a constituent with the V + Clitic (the interpretation suggested by my first translation) or it is not in surface constituency with the NP it quantifies.

Several other uses of *ndyâam* show a syntactic contrast with the distributive universal quantifiers. First, an expression may be quantified with *ndyâam*, followed by a coreferential expression quantified with the distributive. The translations below clearly reflect the meaning difference. Note that in both cases, *ndyâam* applies to morphological plurals (*səbə* 'men', *-tlən* plural ICP) whereas the distributive applies to morphological singulars (*-uwsə* m.sg. ICP, *-za* f.sg. possessive pronoun).

- (93) a. *kwaa g-aa tsuway ka ndyaan səbə niy aavuwagwahiy,*
 when AUX-Ipf morning PRM all men of town
kooweeneekiy də b-uwsə maysaafata 'ənaa vərko
 each one Sjn go-ICP fetish house with son
 'when morning comes, all the men of the town, each one goes to the fetish house with [his] son'
- b. *də bawa-tlən ndyaam, koowayyeekiy 'ənaa vaashi-za*
 Sjn go-ICP all each one with boyfriend-her
 'they all go, each one with her boyfriend'

Second, *ndyâam* can quantify over a preceding phrase and a following comitative, including the comitative within its scope. In contrast, the scope of the distributive quantifier is limited to the minimal NP of which it is a part, such that a phrase *every man and me* would have to be interpreted as a set comprising the subsets {every man} and {me}. That *ndyâam* in these constructions yields the "single set" interpretation is particularly clear in (94b), where the NP preceding *ndyâam* is the singular *-za*. The minimum set of count nouns which *ndyâam* may quantify is a set of two members, so the comitative phrase is needed for a felicitous interpretation.²³

- (94) a. *a kamaata miy buw-aama ndyaan 'əfaa təvan niy*
 Pf be fitting we go-ICP all with wives our
 'we should all go with our wives'
 (or 'we should go together with our wives')
- b. *faa hiya-za hiyaw ndyaam 'ənaa mən*
 you rejected-her rejection all with me
 'you rejected both her and me'

²³Another interpretation is that suggested in examples above, i.e. that *ndyâam* is not a quantifier over a noun phrase. Under this interpretation, (94b) could be translated 'you completely rejected her [along] with me'. This interpretation, too, is unlike any of the semantic or syntactic possibilities of the distributive quantifiers.

Finally, *ndyâam* freely occurs in negative contexts, where it retains its universal reading (cf. comments in §5.1 on negation with distributives).

- (95) a. *a cam ma wiya ndyaam aaduwn-uw*
 Pf love NEG another all in-world-NEG
 'he doesn't love any other in the entire world'
- b. *də jiy dafəma kam ba mbanna, ndyaam kaman-wasə mayyuw*
 Sjn Prt fix up house which beautiful all like-it there-is-no
 'she fixed up a beautiful house, its equal [was] completely non-existent'

5.3. Universal relative constructions and conditionals. Miya has three ways to express "-ever" clauses such as '[whoever studies Miya] is lucky' or '[whatever he says] take it with a grain of salt'. For fuller discussion and further exemplification, see 10:§5.2.11 for the quantified relative clauses and 14:§2.3 for the conditionals.

The first two ways involve modifying a noun phrase containing a relative clause with one of the two types of universal quantifiers described in §§5.1-2. In logical form, these should differ in terms of disjunctive vs. conjunctive application of the quantification, but in practice, speakers seem to take them as essentially equivalent. The form using *ndyâam* is by far the most frequently used with a verbal relative clause.

(96) **Disjunctive Quantification** (cf. 10:§5.2.11)

- kóowèena bá zàra Ndúwy-eekiy t́ mà b-úws-uw*
 every who call Nduya-every he not come-ICP-NEG
 'whoever calls Nduya, he [Nduya] won't come'

(97) **Collective Quantification** (cf. 10:§5.2.11)

- a. *ndyâam báa dè zara Kasham t́ mà háyà-w*
 all who AUX call Kasham he NEG answer-NEG
 'whoever called Kasham, he [Kasham] didn't answer'
- b. *ndyâam hám báa dè kəmaya-tlən, fàa shəd-ay*
 all thing that AUX spoil-ICP you-Sjn discard-Tot
 'whatever gets spoiled, discard it'
- c. *ndyâam ée dzàrée làabáariy də dəkay(a) áa səbə*
 all where disperse news Sjn hear PS people
 'wherever one spread the news, the people heard it'

The third way is what I refer to as *generic conditionals* (14:§2.3). These are actually concessive conditional clauses with one of the noun phrase positions filled by one of the universally quantified expressions derived from question words. They therefore share syntactic properties of both conditional clauses and word questions but *not* of independent noun phrases. See (14:§2.3) and the end of §5.1 above for a semantic interpretation.

- (98) a. tá zàra gam Kasham aa w-eekiy tɔ mà háyá-w
if call *g(án)* Kasham PS who-every he NEG answer-NEG
'whoever called Kasham he [Kasham] didn't answer'
- b. tá kəmay-tlən g-aa m-èekiy, fàa shəd-áy
if spoil-ICP *g(án)*-PS what-every you discard-Tot
'whatever gets spoiled, discard it'
- c. tá dzàréé gàn laabáariy kóo-yùkw-éekiy də dəkay(a) áa sèbə
if disperse *g(án)* news every-where-every Sjn hear PS people
'wherever one spread the news, the people heard it'

6. Reflexives and Reciprocals

6.1. Reflexives

6.1.1. Anaphoric reflexives. Anaphoric reflexives use the word *ghàm* 'head' plus a possessive pronoun. *Ghàm* remains singular in form even with plural referents. In my data I have examples only of direct object reflexives in simplex clauses, so I cannot comment on their use across clause boundaries, etc.

- (99) a. mən nay ghàm-u-wun 'I saw myself'
b. mən aa biyá ghàm-u-wun 'I will stab myself'
- (100) a. Kásham nay ghàm-u-wsə 'Kasham saw himself'
b. Kásham a biya ghàm-u-wsə 'Kasham will stab himself'
- (101) a. míy nay ghàm-aama 'we saw ourselves'
b. míy aa biyá ghàm-aama 'we will stab ourselves'
- (102) d-àa búwa-tlən d-aa páa ghàma-tlən eeyí
3rd ps.-Ipf come-ICP 3rd ps.-Ipf collect "self"-their there
'they come and get together [collect themselves] there'

Example (102) is the only anaphoric reflexive which occurred in my texts.

6.1.2. Emphatic reflexives. Emphatic reflexives use a word *áakaayi*²⁴ followed by the normal reflexive using *ghàm* 'head'. My examples show a preference for putting the emphatic reflexive sentence final, even where the Hausa sentences presented for translation had it next to the noun (the emphatic reflexive portions of the Hausa sentences are underlined). The first example below keeps the reflexive together with its referent and treats this construction as a focused subject (12:§2.2.1).

²⁴This word is not obviously related to or derived from any other word that I have found in Miya. It resembles the Hausa word *kāi* 'head' (pronounced *kāyīi* in some dialects), suggesting that it is really a calque on Hausa constructions such as *ni da kai-na* 'I myself' (lit. 'I with my-head'), using the Miya instrumental prepositions *aa*. If this is the case, however, the tones are unusual because *aa* normally imposes low tone on its object.

- (103) mən àakaayi ghàmù-wun dɔ dəm(a) áacàm 'I myself did the work'
I emp. refl. "self"-my FPf do work (Hausa: ni da kaina na yi aiki)
- (104) mən bùw-án aakaayi ghàmù-wun 'I came myself'
(Hausa: na zo da kaina)
- (105) Kásham dəm áacám aakaayi ghàm-ùwsə 'Kasham did the work himself'
(Hausa: K. da kansa ya yi aiki)
- (106) míy aa buw-ám(a) àakáayi ghàm-àama 'we will come ourselves'
(Hausa: za mu zo mu da kanmu)
- (107) fá naya d-àa táfàs(a) áakaayi ghàm-ùwsə,
you-Pf see 3rd ps.-Ipf boil emp. refl. "self"-its
àmmáa akúw ma n-àa cəbɔ-was-uw
but fire NEG AUX-Ipf base-its-NEG
'you will see [the fermenting beer] is boiling by itself,
but no fire is under it'
- 6.2. Reciprocals.** Reciprocals use the word *túwatúw* 'body' plus a possessive pronoun.
- (108) míy tàbəna túwatùw-aama 'we abused each other'
- (109) Kásham 'ənáa Ndùwya bíy náya tuwatùwa-tlən
'Kasham and Nduya will see each other'

Chapter 10
NOUN PHRASE SYNTAX

1. Introduction

This chapter describes the internal syntax of noun phrases. Many of the syntactic features of noun phrases depend on lexical features of nouns, in particular gender and plurality. Chapter 8:§2 describes gender and number morphology and gender and number agreement patterns. Chapter 8:§§4-6 describe other aspects of nominal morphology. Chapter 9, esp. §§1-3, describes functional aspects of indefinite and definite determiners which relate to sentential and discourse structure outside the noun phrase. Chapter 9:§5 does the same for noun phrases containing universal quantifiers ('every', 'each', 'all'). Sections 4-5 of the present chapter discuss noun phrases with internal clauses (relative clauses and related structures). See Chapter 5 for a full description of the tense, mood, and aspect (TAM) system, and Chapters 11-12 for more general discussion of sentence level syntax.

2. Determiners

2.1. "Previous Reference Markers" (PRM). The PRM category comprises the following morphemes:

ká kón, kèn

The left-hand form serves as a clitic on nouns to indicate previous explicit or implied reference in a discourse, similar to Hausa *-n/-r*. It is invariable for gender or number and always bears high tone, regardless of the final tone of the word to which it is cliticized (3:§5). I have translated the clitic as 'the' for convenience, though depending on context, this may not be the best translation:

sàn ká	(m)	'the person'	sàbà ká	(pl)	'the people'
mbèrgu ká	(m)	'the ram'	mbèrgwágwàw ká	(pl)	'the rams'
shín ka	(f)	'the farm'			
dlàrkíy ka	(f)	'the chicken'			

The other form, *kèn* (always with L tone in the functions described here—see 9:§2.2 for discussion of *kèn* vs. *kón*), apparently is never cliticized to a noun alone; it was never volunteered as such, and I have found no clear examples in texts. Aside from this, *ká* and *kèn* share a functional relationship. Even though *kèn* seems never to be a *nominal* clitic, neither does it ever occur in isolation or phrase initial, suggesting that it be considered a *phrasal* clitic. It shares this syntactic feature with *ká*, which may also have a phrase as its scope. One of the two morphemes is obligatorily present following a phrase introduced by

the deictic predicator /náy/ 'here/there is...', 'voici/voilà...' (11:§4.7). When physical distance is at issue, *kèn* is proximal, *ká* distal (first example in each group below); in other cases with /náy/, the two seem more or less interchangeable (second examples in each group below).¹ *Kèn* may also mean 'here' in the sense of physically near or of immediate discourse importance (last two examples in the first group below). *Ká* as an NP clitic appears at the end of the NP, not as a clitic on the head noun (third example under *ká*). It also forms the second part of the discontinuous marker of conditional clauses (14:§2), assuming that this is the same morpheme as the determiner (last example below).

kèn

née (= náy) kàn-wan kèn	'here's my house (here)'
náy hám ba dzáray mùwsuw kèn	'here's what will resolve the dispute'
tlón dè kèn d-aa mákàw	'they were here, residing'
súw kèn-áy àa náy bàa-za	'when here [appeared] her father & Co.'

ká

náy kàn náy b-ÿrn ká, tála-kèn ²	'there is your parents' house, go in'
náy hám bá mar-wàn ká	'here's what happened to me'
sàbà tsór ka	'the two people (just mentioned)'
kwáa b-uwsè ká, dè d'əngayá ...	'when he comes, he tells him ...'

See 9:§2 and §2.2 immediately below for uses of *ká/kèn/kán* in conjunction with other morphemes.

2.2. **Demonstratives.** Miya demonstratives are marked for two parameters: *gender/number* and *distance*.

	Masculine	Feminine	Plural
Near	nákən	tákən	níykin
Far	náka	táka	níyka

These forms are composites of the gender/number morphemes *ná/tá/níy* plus the PRM clitics discussed in the section immediately above.

The demonstratives can be used as pronouns to mean 'this one', 'those', etc. and as attributive modifiers of nouns. In their productive attributive use, demonstratives precede the noun they modify:

nákən mbèrgu	tákən təmáku	níykin təmákwiy
'this ram'	'this ewe'	'these sheep'
náka láy	táka wún	níyka wútlámíy
'that boy'	'that girl'	'those children'

¹There may be a difference. In the example with *kèn*, the thing in question is about to be explained whereas with *ká* it has just happened, i.e. forward vs. backward view in time.

²*Tála-kèn* 'go in' is a feminine singular Imperative. *Kèn* here is the 2nd feminine singular ICP, not the PRM.

With *animate* nouns, demonstrative agreement with singular nouns is masculine or feminine, corresponding to lexical gender, and plural with morphologically plural nouns. With *inanimate* nouns, agreement is with lexical gender, even if the noun is morphologically plural (see 8:§2.3.3 for discussion). The examples above illustrate agreement with animate nouns, those below are inanimates:

nákən víyayúw	'this fireplace'	nákən víyayùwáwàw	'these fireplaces'
táka tlərkáy	'that calabash'	táka tlərkáyáyàw	'these calabashes'

I found a few examples in texts where the demonstrative follows the head noun. Most such examples are temporal expressions (first two examples below). The third and fourth examples are the only non-temporal examples I found in my corpus. The third seems to be some sort of rhetorical flourish; the fourth is from a song and could be poetic license.

á bay-tlà múku taka akán hà jífə naazà

'one will take her *that day* to her husband's house'

tòo, sáa'iy naká ka, wàatoo, món màỳ samaaríy

well, [at] *that time*, that is, I was the leader of the youth'

Tòo, née nàkən kən, tó d'ay nakən, ngènuwsə jíy Gítuwà.

'Well, here's this [man] here, he's on *this inselberg*, [and] his name is GITUWA.'

Ád'əngó tàkən, wànkwa epíy mà náya-w?

'*This talk*, how could pleasure not see it?'

The PRM *kálkən* can be added to a noun phrase containing a demonstrative. The PRM always agrees with the demonstrative, i.e. *ká* is used only with noun phrases containing a "-ka" demonstrative and *kən* with those using a "-kən" demonstrative. In nearly all cases the PRM seems to be serving as a topic marker rather than a pure deictic. (See 9:§3.1.2, esp. fn. 13 for further discussion.)

wàtaw nàkən wár kən tē jiy war naama gárná

'that is to say, *that festival* IT'S our main festival'

náka sən ka tē jíy ba tē d-aa wàr aakəmasə

'*that man* he's the one who has the festival in his control [in his hand]'

àad'oo	níyká	dzáfu	vàatleeníy	ká	səba	na	dòona-za,	shíykèenán	də	zara-z(a)
in	those	men	five	PRM	who	AUX	seek-her	OK	Sjn	call-her

áa níy bəa-za ...³
PS & Co. father-her

'among *those five suitors* who are seeking her, well her family calls her ...'

³Note that the relative clause *səba na dòona-za* follows the PRM *ká*. I assume that the PRM is a topic marker for the full noun phrase but that the relative clause is extraposed after *ká*. Clearly the demonstrative and PRM apply to the entire noun phrase '5 suitors who are seeking her', not just "5 suitors".

2.3. Indefinites. The indefinites differentiate number/gender:

Masculine:	wíy
Feminine:	wíya
Plural:	níywiy

Like demonstratives, these forms can be used as pronouns to mean 'a certain one', 'some', etc. or as attributive modifiers of nouns. As attributives they precede the head noun: *wíy sám* 'a (certain) man', *wíya'am* 'a (certain) woman', *níywiy səbə* 'some/certain people'. The following is a brief summary of the functions of the indefinites. See 9:§1 for fuller discussion of semantics and discourse functions and more examples.. See Jaggar (1985) for discussion of the comparable morphemes in Hausa.

In affirmative sentences, the indefinites are always referential, having a range of English translations, including 'a', 'a certain', 'some', 'another', 'a different'. A common function is to introduce new, potentially important referents into a discourse. Because the indefinites are referential, additional discourse participants introduced by *wíy/wíya/níywiy* must have different referents from earlier introduced referents, a fact which leads to the possible translations 'another, a different'. In the following sentences from the same narrative, different participants are introduced by *wíya* 'a certain (female person)':

Wíya dē baa-z-áy ghád'uw 'ənáa tēra-za. ...
indef. Sjn go-ICP-Tot wood with friends-her

Də d'ənga *wíya* duw ...
Sjn say indef. Qt

'A *certain [girl]* went [to collect] wood with her friends ...
He [a giraffe] said to *another [girl]* ...'

In negative contexts, it is the referentiality of the indefinites which is negated (9:§1.2):

wíy má ìya nayá sarariy na dēna-w sábdoda yawá naa-zà
indef Neg can see region of sky-Neg because abundance of-it

'no one can see the sky because there are so many of them [locusts]'

Ndùwya zar má *wiy*-uw
Nduya call Neg indef-Neg

'Nduya didn't call *anyone*'

3. Genitives⁴

Miya has two major syntactic types of genitive constructions, which I will refer to as *direct* and *linked*, referring to whether the construction makes use of a gender/number sensitive linking morpheme (the "linked" construction) or the construction does not include a gender/number sensitive linker (the "direct" construction). (There is also a third, more

⁴Some Africanists refer to the constructions in this section as "associative" noun phrases. The first person to use this term, as far as I know, was William E. Welmers. In Welmers (1973) he correctly objects to the term "possessive", and though he notes the parallels between his "associative" and the "genitive" of languages such as Latin, he prefers to restrict the latter term to "inflected noun forms in languages with case systems" (p. 275). Personally, I see no objection to using "genitive" as a label for a syntactic *construction* type and hence use it here since it is a more widely recognized term than "associative".

restricted type of genitive—see §5.1.4.) The choice between the direct and linked constructions is, for the most part, semantically conditioned, but it is also in part lexical. For this reason, I prefer labels referring to the *form* of the construction rather than semantic labels such as “inalienable” vs. “alienable”, which correspond only to subsets of the direct and linked construction types.

3.1. Direct genitives

3.1.1. Form of direct genitive constructions. There are two types of direct genitive constructions, which I will call *feminine* and *masculine* based on the gender that the head (initial) noun that each type most frequently has (see below for discussion of plural head nouns). There are, however, many lexically masculine nouns which condition the “feminine” construction and a few lexically feminine nouns which condition the “masculine” construction. The simplest formal procedure is to have lexical gender determine genitive construction type, with special lexical marking only for those nouns which condition a genitive construction type contradicting the lexical gender.

The *feminine* construction suffixes *-a* to the head noun when the second element is a noun and also, for most persons, when the second element is a pronoun.⁵ The *masculine* construction consists of direct juxtaposition in all cases. Below are complete paradigms for six nouns, three feminine and three masculine. These will illustrate the tonal behavior in genitive constructions with pronouns and the tones of *-a* in the feminine construction:

	mbàdǎ (f) 'thigh'	ángár (f) 'leg'	ágam (f) 'jaw'	pèram (m) 'blood'	átín (m) 'nose'	ákyar (m) 'back'
1	mbàdǎwun	ángarwùn	ágamuwun	pèramwan	átínwàn	ákyarwán
2m	mbàdǎfǎ	ángarǎfǎ	ágamafǎ	pèramfǎ	átínfǎ	ákyarfǎ
2f	mbàdǎghəm [mbàdǎɣm]	ángarǎghəm [ángarǎɣm]	ágamaghəm [ágamɣm]	pèramghəm [pèramɣm]	átínghəm [átínɣm]	ákyarǎghəm
3m	mbàdǎwsǎ	ángarǎwsǎ	ágamuwsǎ	pèranwasǎ	átínwǎsǎ	ákyarwǎsǎ
3f	mbàdǎza	ángarǎza	ágamazǎ	pèranza	átínzǎ	ákyarzǎ
1p	mbàdǎama	ángarǎama	ágamaama	pèramma	átímmǎ	ákyarǎma
2p	mbàdǎaná	ángarǎaná	ágamanǎ	pèramná	átínnǎ	ákyarǎnǎ
3p	mbàdǎtlǎn	ángarǎtlǎn	ágamatlǎn	pèrantlǎn	átíntlǎn	ákyarǎtlǎn

'castrated goat's ...'

mbàdǎ mǎdǎ ángarǎ mǎdǎ ágama mǎdǎ pèram mǎdǎ átín mǎdǎ ákyar mǎdǎ

These data illustrate the following tonal generalizations:

- (1) *-a* of the feminine construction in most cases copies the preceding tone, suggesting that it is underlyingly toneless (see 3:§3.1 for rules affecting toneless domains). The exception is following underlying (downstepped) H in pronominal constructions, as with 'leg'. See below for discussion.

⁵One might call this *-a* a “linker”, making the label “direct genitive” a misnomer. However, I use the term “linker” more narrowly to refer to the gender/number sensitive morphemes discussed in §3.2. The *a* is more akin to a case marker.

- (2) a. The 3rd feminine singular pronoun *-zǎ* is always L.
 b. The 2nd and 3rd person plural, *-na* and *tlǎn*, probably also carry underlying L. They have tone polar to the preceding syllable. If these pronouns bear underlying L, they would have L after H and, by LOW RAISING (3:§3.1), which raises an initial L syllable that does not begin in a voiced obstruent, they would take H after L.
 c. Other persons in the “feminine” construction fall under the domain of the tone of *-a*. In the “masculine” construction, these persons bear (downstepped) H after H and L elsewhere.

The most problematic fact here is the tone of *-a* in feminine nouns such as 'leg', which are lexically /Toneless H/ (→ [H¹H] in initial position). Note first that though the noun stem has [H¹H] in citation form and with noun possessor (cf. 'castrated goat's leg' above), with pronoun possessors, it has [H H] tones. It remains distinct from underlying H nouns such as *ágam* 'jaw', however, in the tone of *-a* and/or the pronoun. I checked a number of /Toneless H/ feminine nouns and found that most behaved this way. Some, however, retained the [H¹H] initial tone pattern, and in this case *-a* copies the preceding tone, e.g. [áwúm] 'cheek', [áwúmafǎ] 'your (ms) cheek'. I do not know whether this is a lexically specific difference among /Toneless H/ feminine words or an option for such nouns in genitive constructions. Masculine words with underlying /Toneless H/ pattern always retain the [H¹H] initial pattern in genitive constructions.

Other than the case in the preceding paragraph, the tones of the head noun in a genitive construction are identical to the tones the noun has in isolation. Tones of N₂ in a genitive may change, but these alternations are not specific to genitive constructions, taking place in all constructions which comprise tonal phrases (3:§6). Below are a few constructions illustrating the possible alternations for N₂. The “feminine” and “masculine” constructions condition these alternations equally. N₁ in each example is shown with the tones it would have in utterance initial position; * above a syllable signals a Toneless domain extending up to the next syllable that bears an underlying tone. See 3:§3.1 for discussion of the tone rules:

TONE SPREAD

mbàdǎ (f) + laahǎ	→	mbàdǎ laahǎ [_ _ _ _]	'thigh of a jackal'
pèram (m) + dlǎrkíy	→	pèram dlǎrkíy [_ _ _ -]	'blood of a chicken'
átín (m) + laahǎ	→	átín laahǎ [- _ _ _]	'nose of a jackal'

LOW RAISING

pèram (m) + kǎvǎn	→	pèram kǎvǎn [_ _ - _]	'blood of a buffalo'
mbàdǎ (f) + mbǎrgu	→	mbàdǎ mbǎrgu [_ _ - _]	'thigh of a ram'
cf. ángár (f) + mbǎrgu	→	ángár mbǎrgu [- _ - _]	'leg of a ram'

The examples of *mǎdǎ* 'castrated goat' following the pronoun paradigms above illustrate a noun with underlying H, which bears [L] in utterance initial position but shows (downstepped) H following N₁.

Plural head nouns with pronouns as N₂ use the "masculine" construction regardless of the gender of the singular, though for the two words I checked, the pronouns were all L. Moreover, with a *noun* as N₂, the two nouns used as N₁ added the *-a* characteristic of the "feminine" singular constructions. I have found no examples of genitives with plural heads in texts to verify these generalizations. The change /aw/ → [oo] is a regular phonological alternation (2:§2.2.3.2):

	mbàd'adaw 'thighs' < mbàd'ə (f)		wùrumámàw 'knees' < wùrum (m)
1	mbàd'ad'óowàn 1p	mbàd'ad'ómà 1	wùrumám'òowan 1p
2m	mbàd'ad'óofə 2p	mbàd'ad'ónà 2m	wùrumám'òofə 2p
2f	mbàd'ad'óoghèm 2f	mbàd'ad'óoghèm 2f	wùrumám'òoghèm 2f
3m	mbàd'ad'óowàsə 3p	mbàd'ad'óotlèn 3m	wùrumám'òowàsə 3p
3f	mbàd'ad'óozà 3f	wùrumám'òozà 3f	wùrumám'òotlèn 3p
	màd'ad'awa m'édə 'castrated goat's thighs'		
	wùrumám'awa m'édə 'castrated goat's knees'		

A few kin terms used as head nouns show minor irregularities. *Báahə* 'father' and *máahə* 'mother' both have "feminine" genitive forms but have long *-aa-* before 3rd feminine and all plural pronouns, unlike the regular "feminine" genitives, which have long *-aa-* only with 1st plural. These nouns share this characteristic with the root *h-* 'place' (8:§6.2.4), which is never cited in isolation, so this might be considered the regular paradigm for nominal roots having the form C-, of which these seem to be the only three in Miya. The words for 'in-law' (m and f) show tonal irregularities in the pronouns. In 'in-law' (m), which uses the "masculine" construction, the pronouns take the tones expected for a noun ending in final H, though the noun ends in L (we would expect the 1st plural *-ma* to bear H, and in my notes I originally wrote H but later replaced it by L). The tones on the pronouns for 'in-law' (f) show no clear pattern, and I suspect that at least some of them are mistranscribed (I did not elicit the missing forms):

	báahə (m) 'father'	máahə (f) 'mother'	d'ódì (m) 'in-law'	k'ókà (f) 'in-law'
1	búwun	múwun	d'ódìwán	k'ókúwun
2m	báfə	máfə	d'ódífə	k'ókáfə
2f	bághəm [b'ɣɿn]	mághəm [m'ɣɿn]		
3m	búwsə	múwsə	d'ódìwásə	k'ókúwsə
3f	báazà	máazà	d'ódìza	
1p	báama	máama	d'ódìma (d'ódìmá?)	k'ókàama
2p	báanà	máanà	d'ódìna	
3p	báatlèn	máatlèn	d'ódìtlèn	k'ókàtlèn
	'Vaziya's ...'			
	báa Vaziya	máa Vaziya	d'ódì Vaziya	k'ókà Vaziya

3.1.2. Functions of the direct genitive. The direct genitive is the genitive par excellence. Most semantic relations marked as N + N use this construction type, whereas "linked" genitives are restricted to true ("alienable") possessives and "compounds" where the second member is a locative (see §3.3.1). The direct genitive marks inalienable possession, discussed in detail below, but it marks a variety of other semantic relationships

as well. I list here an assortment of N + N direct genitive constructions showing the semantic range of this construction but without attempting to label them as "partitive genitive", "descriptive genitive", etc. Indeed, this would be an unproductive exercise because there are no limits in principle to the number of such categories one could establish. Among these phrases are semantic compounds, i.e. expressions where the meaning of the whole cannot be predicted from the parts ('grain of eye' = 'eyeball', 'sleeping of wood' = 'dozing') and expressions where one of the constituents does not exist independently (cf. 'embers' and 'sand boa'). Miya does not have any special syntactic construction for creating compounds.

ábíy ghənsə	'rain' (water of God)	kwàmbala 'iji	'pestle' (stick of mortar)
ábíy túw	'arrowhead' (water of a.)	ndùwula rəfə	'pot for sauce'
ákyarətə zəkíy	'height of the mountain'	(but not 'pot of sauce'—cf. §5.1.4)	
áníyhə 'itli	'medicine for a cough'	pàpəra kífi	'potsherd' (cut of pot)
ápanà kúw	'embers' (? of fire)	rəma dzuwkə	'shade of a kapok tree'
átá'a kyanuw	'smell of smoke'	sónóo dəm	'dozing' (sleeping of wood)
bàrən-tlèn	'the rest of them'	shùw zúway	'oil from peanuts'
bàkwala pèlèr	'bag (made) of skin'	tàla zúw	'beer (made) of sorghum'
bér mu'fúw	'sand boa' (? of python)	tlíwiy pákə	'biceps' (meat of arm)
dífa shím	'boundary of a farm'	vùwa gwahiy	'town' (stomach of ?)
díytsa tíy	'eyeball' (grain of eye)	wàra Kávər	'Kavər festival'
kwàkwəsə zúway	'shell of peanut'	zùw gam	'maize' (sorghum of ?)

Note also

mèn ndáamày-wán	'I alone, only me'
njè ndáamày-za	'she alone, only her'
etc.	

Worth pointing out is that plurality of the head noun does not preclude the direct construction as it does in some languages, e.g.

pé'áya dèmbər	'branch of a baobab'	pé'áyayàwà dèmbər	'branches of a baobab'
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cf. also examples of plural N₁ in §3.1.1.

Miya has a contrast between *inalienable* and *alienable* possessive genitive constructions. Canonically, inalienably possessed nouns include body parts and kin terms plus a few other words which, for cultural or obvious semantic reasons, are viewed as inalienable. In Miya, this miscellaneous group includes

ngən (f) 'name'	ngənaza	'her name'
	ngənə v'érkə	'the boy's name'
kàm (m) 'house, compound'	kàntlèn	'their house'
	kàm malvə	'the chief's house'
yàn (m) 'grave'	yànwasə	'his grave'

⁶The second element here is probably the original word for 'ram' (now replaced by *mbərgu*). The proto-Chadic root for 'ram' is *gam, and some North Bauchi languages retain this root.

and the words *átìyr(à)*, *ádukun(a)*, and *h(á)* all meaning 'place (of)', described and illustrated in 8:§6.2.4.

For body parts, the inalienable/alienable contrast is 100% productive. When a body part term is viewed as an integral part of its possessor, the direct (inalienable) genitive is used; when it is viewed as an acquired object, the linked (alienable) genitive is used. A few other words, such as *vàray* 'seed; blood relatives', permit a similar semantic contrast.

<i>kúsfywàn</i>	'my bone'	<i>kúsfy nuwun</i>	'my bone' (acquired object)
<i>kúsfy Vàziya</i>	'Vàziya's bone'	<i>kúsfy ná Vàziya</i>	'V.'s bone' (from an animal)
<i>kúmáya Vàziya</i>	'Vàziya's ear'	<i>kúmáya tá Vàziya</i>	'V.'s ear' (from an animal)
<i>sàyuwsə</i>	'his liver'	<i>sày tuwsə</i>	'his liver' (meat for food)
<i>tìynaama</i>	'our teeth'	<i>tìynánò taama</i>	'our teeth' (ornaments, etc.)
<i>tìlwiyan</i>	'my muscles'	<i>tìlwiy nuwun</i>	'my meat' (for eating)
<i>vàraywan</i>	'my relatives'	<i>vàray nuwun</i>	'my seeds' (for planting)
<i>vàray zúw</i>	'sorghum seeds'	<i>vàray ná Vàziya</i>	'V.'s seeds' (for planting)

Similarly, the linked genitive can show a possessive relation between N_1 and N_2 in contrast with other sorts of semantic relationships:

<i>bàkwala péler</i>	'bag (made) of skin'	<i>bàkwala na Ndúwya</i>	'Nduya's bag'
<i>tìspíy masáďə</i>	'hemp leaves'	<i>tìspíy nuwun</i>	'my leaves'

Miya includes among "body parts" substances which are produced by the body such as *gútsər* (m) 'mucous', *nániki* (m) 'saliva', *pəram* (m) 'blood', *tsəpər* (f) 'urine', *wáďə* (m) 'feces'. Note the following contrast between the homophonous words for 'tears' and a type of snake:

<i>ázhìpiywun</i>	'my tears'	<i>ázhìpiy tuwun</i>	'my snake (sp.)'
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Unlike body part terms, where meaning accounts entirely for the possibility of using the direct genitive to show inalienability, kin terms (which include various non-genetic affiliations as well) must be lexically marked as to whether they take direct or indirect genitives. Most take the direct genitive, but as the following lists show, there seems to be no way in principle to separate the two syntactic types semantically or formally. This is an exhaustive listing of kin terms from my materials:

Kin terms using direct genitive

Citation form	'my ...'	'NAME's ...'
<i>báahə</i>	'father'	<i>búwun</i>
<i>máahə</i>	'mother'	<i>múwun</i>
<i>dədi</i>	'in-law (m)'	<i>dədiwán</i>
<i>kəkà</i>	'in-law (f)'	<i>kəkúwun</i>
<i>yəsə</i>	'brother'	<i>yəsəwun</i>
<i>vəki</i>	'sister'	<i>vəkiwun</i>
<i>dəwan</i>	'brothers'	<i>dəwanwan</i>
		<i>dəwya Kasham</i>
		<i>dəwan Kasham</i>

<i>vəashi⁷</i>	'brother; boyfriend'	<i>vəashiza</i>	'her brother'
<i>ázəkú⁸</i>	'maternal uncle'	<i>ázəkúwán</i>	<i>ázəkúwá Masangà</i>
<i>ásar</i>	'peer'	<i>ásarwán</i>	
<i>/tər-/</i>	'peers'	<i>tərəwun</i>	<i>təra Kasham</i>
(used only with a possessor; always plural reference)			
<i>gyəm</i>	'friend' (m or f)	<i>gyəmwun</i>	<i>gyəma Vaziya</i>
<i>gyəmamáw</i>	'friends'	<i>gyənnóowán</i>	<i>gyənnóo Kasham</i>

Kin terms using linked genitive

<i>'ám</i>	'wife'	<i>'án tuwun</i>	<i>'án ta Gwàrama</i>
<i>təvam</i>	'wives'	<i>təvan niytlən</i>	'their wives'
<i>/jifə-/</i>	'husband'	<i>jifə naaza</i>	'her husband'
(not used without possessor; cf. <i>jifana</i> 'male human')			
<i>dzəfə</i>	'husbands'	<i>dzəfə niytlən</i>	'their husbands'
<i>lày</i>	'son'	<i>lày nuwun</i>	
<i>vərkə</i>	'son'	<i>vərkə nuwun</i>	
<i>wùn</i>	'daughter'	<i>wùn tuwun</i>	
<i>/wùtlə-/</i>	'children'	<i>wùtlə niywan</i>	
(not used in isolation; cf. <i>wùtləmiy</i> 'children', i.e. "non-adults", <i>wùtlə təvəm</i> 'girls', lit. 'children-women')			
<i>kəká</i>	'grandparent' (m or f)	<i>kəká nuwun</i> , <i>kəká tuwun</i>	
<i>jíyká</i>	'grandchild' (m or f)	<i>jíyká nuwun</i> , <i>jíyká tuwun</i>	

3.2. Independent genitives

3.2.1. Independent genitive pronouns and nominals. The table below presents the independent possessive constructions meaning 'mine', 'yours', 'the chief's', etc. for masculine, feminine, and plural referents.

Masculine		Feminine		Plural	
Singular	Plural	Singular	Plural	Singular	Plural
1 <i>núwun</i>	1 <i>náama</i>	1 <i>túwun</i>	1 <i>táama</i>	1 <i>níywan</i>	1 <i>níyama</i>
2m <i>náfə</i>	2 <i>náana</i>	2m <i>táfə</i>	2 <i>táana</i>	2m <i>níyfə</i>	2 <i>níyana</i>
2f <i>nághəm</i> [n'ɣn]		2f <i>tághəm</i> [t'ɣn]		2f <i>níyghəm</i> [níyin]	
3m <i>núwsə</i>	3 <i>náatlən</i>	3m <i>túwsə</i>	3 <i>táatlən</i>	3m <i>níywasə</i>	3 <i>níytlən</i>
3f <i>náazə</i>		3f <i>táazə</i>		3f <i>níyza</i>	
<i>ná ghənsə</i>	'God's'	<i>tá ghənsə</i>	'God's'	<i>níy ghənsə</i>	'God's'
<i>ná malvə</i>	'the chief's'	<i>tá malvə</i>	'the chief's'	<i>níy malvə</i>	'the chief's'

⁷This word comes from Skinner (1977). I do not have an example with a noun possessor or more specific information on the semantics.

⁸The form with the noun possessor in the table as well as *ázəkúwá* 'your (m) maternal uncle' suggest this word probably has the underlying form *lazəkúwá* and requires the feminine genitive construction with *-a*. On the other hand, the first person singular possessed form, with a geminate *-ww-* suggests underlying *lazəkúwá*. There is no phonetic difference in utterance final position between *lkúwá* → [ku] and *lkúwá* → [ku].

Below are examples of the independent genitive taken from texts. The independent genitive and its referent are italicized:

Kwáa gâgâs(a) *aatsótsaliy ká nyâan ká, tòo kóowèeni b(a) áanguw eekì dè kífà tuwsə* də baya dʒ malvá.

'When one collected all *the taxes*, well every ward head would take *his* and carry it to the chief.'

Dàga nayá *sàmay n-aaMángilà, jée baatlèn dè bíy nayá n-aaGítuwà.*

'Upon seeing Mangila's *trash heap*, then they went and saw *Gituwa's*.' [In order to establish who had been in the area the longest, people compared the size of the respective village trash heaps.]

3.2.2. "... & Co.", "and others like ...". Miya uses a morpheme which is segmentally identical to the plural independent genitive marker before a noun or list of nouns to denote "X and compatriots", "X and other things like it", "X & Co." This morpheme differs from the independent genitive in having a floating low tone which replaces the tone of the following word (see 2:§4). Compare the independent genitive *níy Kasham* 'Kasham's' (where the toneless word *Kasham* copies the preceding tone) with the first phrase below:

<i>níy</i> Kàsham	'Kasham and the others, Kasham and his compatriots'
<i>níy</i> bàahə	'(one's) parents' (lit. 'father & Co.')
<i>níy</i> bàaza	'her parents' (lit. 'her father & Co.')
<i>níy</i> bùwun 'ənáa mùwun	'my father and mother' (lit. 'my father & Co. and mother')
<i>níy</i> zùw 'ənáa màrdə	'things like sorghum and millet'

3.3. Linked genitives

3.3.1. Form of linked genitives. Linked genitive constructions consist of a head noun followed by an independent genitive construction (§3.2). The independent genitives all have an initial Toneless domain, so by the regular rule of TONE SPREAD (3:§3.1), this domain gets its tone from the final tone of the head noun. For pronoun possessors, 3rd feminine singular *-za* bears L, 2nd plural *-na* and 3rd plural *-tlən* have tone polar to the preceding tone, and all others copy the preceding tone.

	Masculine head noun	Feminine head noun	Plural head noun
	mbərgu 'ram'	támáku 'ewe'	támakwiy 'sheep (pl)'
1	mbərgu nuwun	támáku tuwun	támakwiy niywan
2m	mbərgu nafə	támáku tafə	támakwiy niyfə
3f	mbərgu naghəm [nɔɔm]	támáku taghəm [tɔɔm]	támakwiy niyghəm [niyim]
3m	mbərgu nuwsə	támáku tuwsə	támakwiy niywasə
3f	mbərgu naaza	támáku taazà	támakwiy niyza

1p	mbərgu naama	támáku taama	támakwiy niyama
2p	mbərgu naaná	támáku taaná	támakwiy niyná
3p	mbərgu naatlən	támáku tatlən	támakwiy niytlən
	mbərgu na Vaziya	támáku ta Vaziya	támakwiy niy Vaziya

The following examples illustrate other tone patterns on head nouns:

	gwíyín 'yam'	vən 'grinding quern'	wùtləmíy 'children'
1	gwíyín nuwun	vən tuwun	wùtləmíy niywan
3f	gwíyín naazà	vən taaza	wùtləmíy niyza
3p	gwíyín naatlən	vən taatlən	wùtləmíy niytlən

For *singular* head nouns, agreement is always with the lexical gender of the head noun (cf. direct genitives, §3.1.1, where the two construction types were labeled "masculine" and "feminine" because of the predominant but not invariable agreement pattern with gender of the head noun). For *plural* head nouns, however, agreement is plural only for "animate" nouns, where "animate" refers to humans and most domestic and large wild animals. For "inanimates", agreement is with lexical gender of the root, even where the noun is morphologically plural. (See 8:§2.3.3 for a more general discussion of this agreement pattern.) The paradigms above illustrate the "animate" agreement pattern. The examples below, with morphologically plural head nouns, illustrate the "inanimate" agreement pattern.

	ndùwul (m) 'pot', ndùwulálàw (pl)	kàkər (f) 'shoe', kàkəràràw (pl)
1	ndùwulálàw nuwun	kàkəràràw tuwun
3f	ndùwulálàw naaza	kàkəràràw taaza
3p	ndùwulálàw naatlən	kàkəràràw taatlən
	ndùwulálàw na Kasham	kàkəràràw ta Kasham

3.3.2. Functions of the linked genitive. Linked genitives signal true possession, as illustrated by all the examples in the preceding section. Linked genitives also show that a nominal complement of a verbal noun is its subject (see §3.4.1). The direct genitive (§3.1.2) signals most other relationships generally called "genitive" or "associative" in Chadic and other languages. One noteworthy class of exceptions is some kin terms which require the linked construction rather than the expected direct one (see end of §3.1.2). A further class of apparent exceptions is compound-like phrases in which the second noun is a real or figurative location of the first or a time at which the first noun is in effect (see §3.3.3 for a special construction when the *first* noun is a location):

Locative N ₂	
làakumiy t-aatsákən	'giraffe' (camel of bush)
dlàngər n-aatsákən	'wild animal' (animal of bush)
dlàngər n-aakám	'domestic animal' (animal of house)
kùtə niy atsákən ⁹	'wild animal' (thing(s) of bush)
tíyín t-àavíy	'incisors' (teeth of doorway)

⁹See 8:§2.3.3 for the *plural* agreement with the word *kùtə* 'thing(s)', even with a singular referent.

tíyín t-àawúma	'molar' (teeth of cheek)
dúwkiy t-aakán-ná	'wealth of your household'
vəzhə t-aakyár	'pain in the back'
ágózhə t-aatáa shám/díndi	'pubic hair' (hair of-on penis/vulva)
cf. <i>ágózha wutlə zhamí</i> 'feather' (hair of birds)	
t-áabàabə	'elephantiasis of the scrotum' (of scrotum)

Temporal N₂

átaa tir n-aasuwa	'next month' (on month of tomorrow)
tsóraké t-aamúku	'midday' (standing of sun/midday)

Note the linking morpheme hyphenated with a following long *aa* in most cases. The *aa* is a locative or temporal prefix on the noun (8:§§5-6), which elides the *-a* of the linking morpheme. The *aa* shows that the noun is interpreted adverbially rather than as a substantive, since initial *a-* of substantive nouns is normally lost in bound environments such as genitives (8:§2.4.1).

3.3.3. Locative genitives. When a concrete noun¹⁰ is N₁ of a noun phrase functioning as a locative adverbial, a special linker, *ha* 'place (of)' is used (cf. 8:§6.2.4). Compare the following pairs of sentences with the same noun as the head of a genitive phrase used substantively and as the head of a genitive phrase used adverbially.

mén nay kám Kàsham	'I saw <i>Kasham's compound</i> '
míy za-ma àkán hà Kàsham	'we entered <i>Kasham's compound</i> '
mén nay lən tuwun	'I looked at <i>my hut</i> '
mén tsəga-wun àalən húwun	'I stayed <i>in my hut</i> '

In substantive use, the word *kám* 'compound' is an "inalienable" noun in Miya and thus uses a direct genitive (cf. §3.1.2), whereas the word *ləm* 'hut' is "alienable" and thus uses the linked genitive with the feminine linker *t-* (§3.3.1).

When a phrase with a concrete locative head noun is used as a locative adverbial, it invariably takes the *ha*-linked construction (see 8:§6.2.1 for a few further examples of this construction). For locational nouns used substantively, as in the first example in each pair above, I found three possibilities:

(1) Some nouns allow either a regular linked genitive (§3.2.1) or a *ha*-linked genitive with no apparent difference in meaning:

ánguw táama = ánguw háama	'our quarter (of town)'
ánguw ta malvó = ánguw há malvó	'the chief's quarter'
ləm tuwsə = ləm húwsə	'his hut'

¹⁰The discussion here pertains only to locative nouns which are physical objects or places, i.e. excluded are locative relational words expressing concepts such as 'in', 'on', 'between', etc. as well as words which mean 'place of ...' but are dependent on the location of their complement noun for their interpretation. Such words in N₁ position all take the direct genitive construction (§3.1.1—cf. 8:§§6.2.2-4 for illustrations of these words).

(2) The noun *kám* 'compound, household; hometown' allows only the direct genitive.

kámwasə	'his compound'
kám Kàsham	'Kasham's compound'

(3) The noun *shím* 'farm' allows only the linked genitive, whereas in the locative sense it uses the *ha*-linked genitive with preceding *vùwa* (cf. 8:§6.2.1).

shím tuwsə	'his farm'
ávùwá shim ha báahə	'at/on father's farm'

I found no concrete locational nouns which manifested three other possibilities, viz. only the regular linked genitive construction, only the *ha*-linked construction, or variation between the *ha*-linked and the direct construction. However, I did not systematically check a large list of nouns to find out which of the attested patterns predominates or whether there are nouns which, in fact, manifest the unattested patterns.

3.4. Nominalized verbs with expressed arguments

3.4.1. Nominalized verbs with expressed subjects. All verbs have regular verbal nouns, which I refer to as *gerunds* (4:§2.2). For monoconsonantal verbs, gerunds have the shape *Cahiy*; all other gerunds have the shape ROOT + *-akə*. When a nominal or pronominal complement of a gerund is its semantic subject, the gerund + subject construction takes the linked genitive, with the linker showing gender agreement with the gerund:

sàhiy tuwun	'my drinking'
dàhiy ta zəkiy	'falling of a stone'
ghànakə nuwun	'my building (of some structure)'
kíyákə ta 'iy	'biting by a dog'
kíyákə tuwun	'my biting (someone/something)'
vərkákə ta 'am	'giving birth by a woman'
vərkákə taazà	'her giving birth'

See 4:§2.2 for details on gerund tones and further examples of gerund + subject.

In addition to gerunds, many verbs have a second type of verbal noun, which I refer to as *deverbal nouns* (4:§2.3). Deverbal nouns have a variety of forms which cannot be predicted from the verb root. As with gerunds, an expressed subject of a deverbal noun appears in a linked genitive construction:

míyuw nuwsə	'his death'
ábəsə tuwun	'my bathing'
árədlə tá Ndùwya	'Nduya's writing'
'ílyi na Kásay	'Kasay's coughing'
ághyaràti naaza	'her growing up'

In elicited data, and for the most part in texts, I found only the linked genitive construction to be used with verbal noun + expressed subject. I did, however, find a few examples in texts where verbal noun + expressed subject take the direct genitive

construction. The examples are all intransitive verbs with pronominal subjects. See §3.4.2, comment (2), immediately below for an explanation of the verbal noun form here; see 4:fn.31 for further comment:

mìyahiy-uwsə	'his death'
cf. the first example in the list just above for the expected linked construction, also from a text	
bùwáhiyà-fə	'your (ms) going'

3.4.2. Nominalized verbs with expressed objects. A gerund with an expressed semantic direct object takes a direct genitive of the "feminine" form. However, gerund + direct object differs in two ways from other N + N direct genitive constructions:

(1) For object nouns with the prefix *a-* (§2.4.1), the prefix is not omitted as it would be in normal genitive or other noun phrases, but rather it remains (becoming long *aa-* by regular rule) as it would when appearing as the object of a finite verb.

ácám (m) 'work':	Gerund + DO	kwáhíy aacám	'lacking work' (<i>kwáhíy</i> + <i>ácám</i>)
	Verb + DO	mán dəm aacám	'I did work'
	vs. Direct genitive	áníyhə cám	'a remedy for work'
	Indep. genitive	ná cám	'that of work'
	Demon. + noun	nákən cám	'this work'

(2) When the object of the verbal noun is a noun, it uses the expected "feminine" direct genitive construction §3.1.1. However, when the object is a pronoun, the gerund ending *-akə* of polyconsonantal verbs is replaced by *-ahiy*, the normal ending for monoconsonantal verbs.

ḡahiy(a) aabíy	'swimming' (breaking water)	(ḡahiy + ábíy)
kwáhíya laafiyeewətə	'ill health' (lacking health)	(kwáhíy + láafiyeewətə)
sənak(a) aacám	'knowing (how to) work'	(sənakə + ácám)
təkaka baa'iy	'accompanying strangers'	(təkakə + baa'iy)
dəonak(a) aanfyhí	'looking for medicine'	(dəonakə + ánfyhí)
kíyákə Kasham	'biting Kasham'	(kíyákə + Kásham)
vərkákə vórkə	'bearing a child'	(vərkákə + vórkə)
màhiyuwun	'forgetting me'	(màhiy)
tíyahiyatlən	'accompanying them'	(tíyakə)
kíyáhiywùn	'biting me'	(kíyákə)
vərkáhiyùwsə	'bearing him'	(vərkakə)

I was unable to elicit any examples of deverbal nouns (as opposed to gerunds) with semantic direct objects. It may be that genitive complements of deverbal nouns are restricted to semantic subjects.

I did not elicit examples of nominalized verbs with indirect objects, but the following examples came up incidentally:

(mán njàa súw) tsàhiya-yá (kàbə tuwun-ay)	'(I refused) to give him (my gown)'
(mən gaa sáakè) d'əngahiya-yá/b'əlahíya-yà	'(I will repeat) recounting to him/telling him'

These examples suggest that nominalized verb + indirect object is formally identical to nominalized verb + direct object, and if the direct object is also expressed, the indirect object preempts the postverbal position.

4. Adnominal Attributes

4.1. Attributive adjectives. See 8:§3 for a complete list of adjectives and discussion of adjectival morphology.

The normal position for attributive adjectives is directly following the noun. Noun + adjective forms a tonal phrase (3:§6.1). The adjective agrees with the noun in gender/number. For singular nouns, agreement is marked by the suffixes *-na* (m) or *-ya* (f). For morphologically plural nouns, the adjective shows agreement by the suffix *-niy* with "animate" nouns, but for "inanimates", agreement is with the lexical gender (see 8:§2.3.3 for a general discussion of animacy and agreement).

mbərgu gárna	'large ram'	səm kárakarana	'tall man'
tómáku gyárya	'large ewe'	'án kárakaraya	'tall woman'
tómakwiy gyáruwniy	'large sheep (pl)'	səbə kárakaraniy	'tall people'
mədfə rínna	'black castrated goat'	təl tsəntsənnə	'sour beer'
'áfuw rínya	'black nanny goat'	lēmóo tsəntsənya	'sour lime'
cūw rínniy	'black goats'	kütə tsəntsənniy ¹¹	'sour thing(s)'
ndūwul mbíyna	'red pot'	cf. ndūwuláləw mbíyna	'red pots'
dlárkíy mbíyya	'red hen'	cf. təkəmáməw mbíyya	'red chairs'
səbə mbíyniy	'red people'		

Attributive adjectives can precede the noun. Formally, adjective + noun is a direct genitive construction (§3.1.1) and the adjective is invariable. I did not pursue this construction, so I do not know whether it is possible for every adjective. Neither can I say much about how it may differ in meaning from the noun + adjective construction. In some cases, the adjective + noun construction seems to be a compound, but in other cases the two word orders were given as equivalent. I have listed those cases where I explicitly remarked on that equivalency in my notes.

màgədzə zúw	'year-old sorghum (m)'	
màgədzə márdə	'year-old millet (f)'	
màgədzə kütə	'year-old thing(s) (pl)'	
pàpəra kíbi	'potsherd' (< pər 'break' + kíbi (m) 'clay bowl')	
pàpəra kütə	'broken thing (pl)'	
byátlama píyám	'unripe pumpkin (f)'	(= píyám byátlamaya)
byátlama kütə	'unripe thing(s) (pl)'	(= kütə byátlamaniy)
sáaboo ndūwul	'new pot'	(= ndūwul saaboo)
tsóohoo kám/kámamàw	'old house/houses'	(= kám/kámamàw tsoofoona)
mbíya sáw	type fish with a red tail ("red tail")	
dzábəná gutsər	type of green snake ("? mucous")	

¹¹See fn. 9 for the plural agreement with *kütə* 'thing(s)'.

In addition to the attributive adjectival constructions above using simple juxtaposition, I found two examples, both with the root *gara* 'large, big, (of persons) important', that have the form of the BA/MA/SƏBə "genitive" construction discussed in §5.1.4.

gàra bá sóm	'important person'	cf. 'large ram' above
gàra má dóm	'big tree'	(= dàm gyáriya)

Diminutives are formed using the words *lày* 'son', *wùn* 'daughter', *wùtlə* 'children (of)' preceding the noun in the direct genitive construction.

lèe líbi	'small hut'	(<i>lày</i> → <i>lèe</i> medial—2:§2.2.3.2)
lèe lémbi	'young/small bull'	
wùna baday	'small basket'	
wùna badayáyàw	'small baskets'	(fem. gender agreement with "inanimate"—8:§2.3.3)
wùtlə tóvàn	'girls' (small women)	
wùtlə zhamí	'bird(s)' (small ?)	

Diminutives are used only with count nouns. Hausa sentences such as *ya ba ni d'an kudi* 'he gave me a little money' ("son of money") were translated using *gàabən* 'a little' (= Hausa *kaɗan*), i.e. à *tɓa-n mír gàabən*.

A point of interest with respect to diminutives is the fact that Miya shows a distinction which is neutralized in most African languages, including Hausa and other Chadic languages that I have worked on. In Hausa the phrase *d'an icce*, lit. 'son of tree', could mean either 'small tree' or 'fruit'. In Miya, there are two words used more or less interchangeably to mean 'son, boy', viz. *lày* and *várkə*. Only the first is used in diminutives, only the second in "child of" constructions, e.g. *lày dóm* 'small tree' vs. *várkə dóm* 'fruit' (child of tree). 'Finger' is *várkə kám*, lit. 'child of hand', whereas **lày kám* was rejected as meaningless (though one would predict that it should mean 'small hand').

4.2. Cardinal numerals and other quantifiers. See 8:§4 for complete lists of numerals and other quantifiers.

Cardinal numerals follow the noun. Animate nouns must have plural morphology for numbers above 'one', e.g. phrases such as **'am tsər* ('woman two'), **'afuw dərbitim* ('goat ten'), with morphologically singular nouns, are ungrammatical. Inanimate nouns may have either singular or plural morphology, though in texts there is a clear preference for the morphological singular. (See 8:§2.3.3 for general discussion of "animacy"). Noun + quantifier forms a tonal phrase (3:§6.1).

'ám wutə	'one woman'
təvam tsér	'two women'
təvam niy malvə tsər	'the chief's two wives'
cūwawáw dərbitim	'ten goats'
kūsam vaatlə = kūsamámàw vaatlə	'five mice' (<i>mouse</i> is "inanimate")
kám máahà = kámamáw màaha	'six houses'
sónáw dərbitim bāhən vaatlə	'fifteen years' (morphologically singular noun)
dáangə fərfədə, dáangəgàw díbi tsér	'eight pots, twenty pots'

(from consecutive paragraphs of the same text, both translated with Hausa plural *randuna*)

In texts I found some examples of numerals bearing a gender/number agreement suffix (cf. §4.1 immediately above for this suffix with adjectives). All such examples are part of a phrase with a demonstrative, but the presence of the demonstrative is not the conditioning factor (see §8 for noun phrase containing a demonstrative and a simple cardinal numeral):

níyka wutləmíy kidee-niy ká	'those three boys'
níyka dzàhə vaatlee-niy ká	'those five men'
táka anguw màatsəree-ya ká	'those seven quarters'

(note the feminine singular demonstrative and agreement suffix with inanimate noun)

Like cardinal numerals are the quantifiers *məna* 'how much/many?', *zhəkə* or *cəsə* 'much/many', and *gyàabə* or *ndàbə* 'a little, a few'. *Cəsə*, *gyàabə*, and *ndàbə* can be morphologically invariable or can take adjectival gender/number agreement suffixes (cf. §4.1 and the cardinal numeral data just above—cardinal numerals were never volunteered in elicitation with agreement affixes, but the other quantifiers were):

səba mənà?	'how many people?' (plural morphology)
zàkiy mənà?	'how many stones?' (singular morphology)
shùw mənà?	'how much oil?'
ghəruwiy cəsə = ghəruwiy cəsəniy	'many cattle'
tsópər cəsə = tsópər cəsəeya	'much urine'
ghəruwiy gyaabə = ghəruwiy gyaabeeni	'a few cattle'
mír gyaabə = mír gyaabeena	'a little money'
səbə ndábə = səbə ndábəeni	'a few people'

A noun phrase containing a quantifier can itself be used as a postnominal quantifier, similar to German phrases of the type *ein Glass Bier*, *zwei Stuck Brot*.¹²

kàbabáw tuwsə àkwaatiy dərbitim	'his twenty chests of gowns'
gowns his chest twenty	
t-à pəla tál daangə fərfədə	'he will mix eight pots of beer'
he-1pf mix beer pot eight	

4.3. "all". The quantifiers *ndyâan* and *pátə* 'all' differ syntactically from other quantifiers. They can appear in the following configurations:

ndyâan səbə = səbə ndyâan = səbə ndyâan-tlón	'all the people'
mír ndyâan = mír ndyâan-wàsə	'all the money'
pátə səbə	'all the people'
pátə-tlən	'all of them'

I did not look in detail at the configurations of noun phrases consisting of nouns quantified by 'all'. In 9:§5.2 I discuss the behavior of 'all' in the context of sentential syntax and suggest that it may never be a simple noun quantifier at the same level as cardinal numbers, but rather that it is a "global" quantifier whose scope can be whatever is semantically and

¹²Note that this is *not* a type of genitive construction. The word order is the reverse of what would be expected in a genitive. See §5.1.4 for the construction which expresses "amount genitives", such as 'a pot of beer'.

pragmatically feasible. Since the phrases cited here contain only a noun (or pronoun), the effect is that the quantifier modifies the noun. See 9:§5.2 for more discussion.

4.4. Ordinal numerals. Formally, noun phrases containing ordinal numeral modifiers are linked genitive constructions (§3.3) with N₂ being a cardinal numeral. I found two types of ordinal structures. The first, volunteered in elicitation, is simply N₁ + Linker + Cardinal #. The second type, which I found only in a text, has the same linked structure, but the numeral bears prefixed and suffixed *a* (cf. 8:§5 for adverbial forms derived from nouns with *-a* suffixes and occasionally *a-* prefixes).

Type 1

səm na wutó	'the first man'
səm na vaatlə	'the fifth man'
'ám ta tsər	'the second woman'

Type 2

'áraka tál n-aatsóra	'the second mixing of beer'
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5. Constructions with BA/MA/SƏBA 'one who has ..., does ...'

Corresponding to Hausa *mai* (sg), *masu* (pl) 'one who has ..., one who does ...', Miya has the following three words:

{ba	masculine	} (tone = H, with downstepped H after H)
{ma	feminine	
səba	plural	

Agreement for "animates" is with lexical gender for singulars and plural for plurals; for "inanimates", agreement is always lexical gender, regardless of number (see 8:§2.3.3 for discussion of "animacy").

Balma/səba form a tonal phrase with their following complement as well as with a preceding coreferential noun (3:§6). *Səba* has underlying H tone, resulting in L in phrase initial position by INITIAL H LOWERING (3:§3.1) and (downstepped) H elsewhere. *Ba* and *ma* are two from a small group of words which have the following tonal characteristics: H in tone phrase initial position and after L but downstepped H after H.¹³

Like their Hausa counterparts, these words can themselves be heads of noun phrases, or they can be attributive modifiers to nominal heads, e.g. Hausa *masu kud'i*, Miya *səba mír* 'those who have money'; Hausa *mata masu kud'i*, Miya *təvam səba mír* 'women who have money'. The Miya words participate in a broader range of constructions than their counterparts in Hausa or other Chadic languages that I am familiar with. For a description of Miya, it is desirable to present in one place all the constructions using these words. In order to facilitate cross-linguistic comparison, I have broken the description down into several partly structural, partly semantic categories. The boundaries between these categories, from the point of view of Miya structure, is sometimes arbitrary.

¹³See 3:§5 for a list of words with these characteristics. In the case of *balma*, I transcribed most of my examples with downstepped H following H, but I did transcribe some examples with a H at the same level as preceding H. Some of these could be transcription errors, but I have enough examples of both tone patterns to think that there is probably variation. Examples here are as transcribed in my field notes.

5.1. BA/MA/SƏBA + simple noun or noun phrase

5.1.1. "Possessor of ...". With concrete nouns, the head is understood as possessing the object. With nouns expressing a quality, the *balma/səba* + quality can be translated as an attributive adjective (see §4.1 for true attributive adjectives):

bá kám	'householder, "sir"' (Hausa <i>mai gida</i>)
səba kám	'householders'
bá mír	'one who has money' (m)
má mír	'one who has money' (f)
səba mír	'ones with money'
bá yúw	'madman' (possessor of madness)
má yúw	'madwoman'
səba yúw	'madmen'
rùwun bá shində	'cold wind' (wind possessing coldness)
sùkwam má piyátə	'sweet honey' (honey possessing sweetness)

səm bá kyaràti/'ám má kyaràti/səba səba kyaràti
'tall man/tall woman/tall people' (man/woman/people possessing tallness)

səm bá kalakə/'ám má kalakə
'worthless man/worthless woman' (man/woman possessing worthlessness)

The negated counterpart ('one who does not have ...') uses a nominalized verbal construction (see §5.1.2) with the verb *kwá* 'lack':

bá kwáa mír	(m)	'one who has no money'
má kwáa mír	(f)	
səba kwáa mír	(pl)	

I found one quality word, *ámán* 'good(ness), beauty', which adds the adjectival agreement suffixes (§4.1) though it is a noun in a *balma/səba* phrase:

ácám ba mbánna	'good work'	bàndzəhə bá mbánna	'handsome youth'
sərəm má mbánya	'good knife'	bàzani má mbánya	'beautiful girl'
kùtə səba mbánniy	'good thing(s)'	wùtlə tšvàm səba mbánniy	'beautiful girls'

5.1.2. Agentive: 'one who does ...'. With nouns expressing some activity, including deverbal nouns (4:§2.3), phrases headed by *balma/səba* are understood as one who does the action expressed by the noun. This construction could be considered a type of subject relative (§5.2.1). One may differentiate the agentive phrase from the subject relative by the verb forms in the respective phrases. Agentive phrases use a noun or deverbal noun, whereas subject relatives use a participle (4:§2.1). The two types of phrases are also distinct semantically. Subject relatives are tensed, whereas agentives are generic descriptive phrases.

bá dlár, (pl) səba dlár	'hunter' (< <i>dlàr</i> 'hunting'; no associated verb)
bá kitlíràti	'fearful person' (< <i>ákitlíràti</i> 'fear'; no associated verb)

bá kír, (pl) sɔ̀ba kír	'thief' (< ákír 'theft'; cf. kàra 'to steal')
bá tlyádi, (pl) sɔ̀ba tlyádi	'farmer' (< átyádi 'farming'; cf. tlyádi 'to farm')
bá ndzàhiy	'poor person' (< ndzàhiy 'poverty'; cf. ndzà 'to be poor')
gìti bá tahíy	'sharp ax' (< tahi ¹⁴ 'eating'; cf. tà 'to eat')
sə̀rəm má tlyám	'razor' (lit. 'knife that shaves' < átyám 'shaving'; cf. tləma 'to shave')

5.1.3. Statives. Stative attributives are expressed by *balma/səba* with either a deverbal noun or a participle (4:§2.3, §2.1). Formally, those with participles are subject relatives (§5.2.1), i.e. 'seated man' = 'man who has sat down', while those with deverbal nouns are identical to the "one who does ..." phrases discussed in §5.1.2. In elicitation the structure with the deverbal noun and the one with the participle were sometimes given as equivalent in meaning, e.g.

səm bá tsógə (deverbal noun) = səm bá tsəguwsə (participle) 'seated man'

There is probably some pragmatic difference, e.g. 'man who has sat down' vs. 'man who is seated/sitting'.

Stative expressions may consist of intransitive verbs modifying their semantic subject or transitive verbs modifying their semantic object. In either case, the English translation will be a past participle (intr. 'seated man', tr. 'built house') or an adjective implying entry into a state from some other state ('ripe fruit', 'wet gown'). Many verbs in Miya can be used either transitively or intransitively, e.g. 'break', 'get wet/moisten'. For such verbs one cannot be sure whether the stative expression is based on the intransitive or transitive sense ('broken pot' < /the pot broke/ or /(unspecified subject) broke the pot/). Pragmatically, it makes no difference since the focus is on the state, not the manner of entry into the state. However, there is one construction where the verb must be interpreted as intransitive. This is where the verb has an Intransitive Copy Pronoun (ICP—5:§4.1), which copies person/gender/number features of the subject and, by definition, appears only with intransitive verbs.

I have divided the examples into two groups. The "intransitive" examples must be understood as such either because the verb is unambiguously intransitive or because it is a participle with an ICP. Among the "transitive" examples are verbs which, for semantic, pragmatic, or formal reasons, must be understood as transitive as well as verbs which could be understood transitively or intransitively but have no overt evidence of an intransitive reading, in particular because they lack an ICP.

Intransitive verbs

'ám má tsógə = 'ám má tsəgaza	'seated woman'
sə̀bə sɔ̀ba tsógə = sə̀bə sɔ̀ba tsəgatlən	'seated people'
<small>(< deverbal noun átsəgə 'sitting' or participle tsəga + ICP; cf. ms form, beginning of this §)¹⁵</small>	
lɛmbi bá tsátsər	'standing bull' (< átsátsər 'standing'; cf. tsər 'to stand')

¹⁴This is the gerund (4:§2.2) of the verb *tà* 'eat'. For verbs with no special deverbal noun, the gerund serves in its stead. Another example is *ndzàhiy* 'poverty', immediately above.

¹⁵These phrases must be derived from the intransitive verb *tsəga* 'to sit down'. The transitive counterpart, 'to seat', is a derived form with a suffix *-ay*, viz. *tsəgay* (cf. 7:§4.1.1).

zùw bá nùwsə	'ripe sorghum' (< nà 'get ripe' + ICP)
ndùwul bá buwsó	'broken pot' (< bə 'break' + ICP)
kàbə má rábaza	'wet gown' (< rəba 'get wet' + ICP)

Transitive verbs

mbərgu bá pəraw	'slaughtered ram' (< participle pəraw)
ghəruw má pəraw	'slaughtered cow'
ghəruwiw sɔ̀ba pəraw	'slaughtered cattle'
tliwiw bá kəwaw	'roasted meat'
ləm má ghəraw	'built hut'
kàbə má rábaw	'wet/soaked gown' (cf. phrase above with ICP)
zùw bá tsəfaw	'dry sorghum'
kàbə má tsəfaw	'dry gown'
jifə nuwána ¹⁶ ba camakə	'my beloved husband'
husband mine ba loving	
jifə naaza bá hiyáke	'her unloved husband'
husband her ba disliking	
bá camakə naazà	'her beloved'
ba loving her	
və̀rkə bá sár-ùwsə	'a boy who is to be circumcised, circumcisable boy'
boy ba circumcision-his	

The interpretation of the genitive pronouns in the last two examples presents some problems. *Bá camakə naazà* could potentially be interpreted as 'her [one who possesses loving]' or 'one who possesses [her loving]'. I have no way, given available data, to test which is correct, or even if it makes any difference. *Və̀rkə bá sár-ùwsə* resembles an object relative with the option of a resumptive pronoun within the clause. However, I prefer to restrict the term "relative clause" to those structures which could show TAM differences and have overtly expressed subjects within the clause. In the phrase under discussion, the "action word" *ásár* 'circumcision' is a deverbal noun, which precludes its being tensed or having a subject in the way a true verb would.

5.1.4. "Genitives" with BA/BA/SəBA. Miya uses *balma/səba* to form certain types of phrases which, in other Chadic languages, would be genitives. It is difficult to circumscribe the exact semantic range of genitives using *balma/səba* as opposed to the more frequently occurring direct genitives (§3.1). My examples indicate that *balma/səba* is NOT used to express part/whole relations ('shell of peanut'), source ('oil of peanuts'), or material ('bag [made] of skin'), all of which the direct genitive may express. Most of my *balma/səba* genitive examples could be translated by English "for", e.g. 'for (the purpose of)', '(the time) for'. Some express amount, e.g. 'a pot of sauce' (but cf. another way to express amount at the end of §4.2).

ndùwul bá rəfə	'pot of sauce' (but not 'pot for sauce'—cf. §3.1.2)
dáangə má bíy	'pot of water'

¹⁶The example is from a text. I do not have an explanation for the form of the possessive pronoun—the expected form with a masculine noun would be *nùwun* (cf. §3.3.1).

hám bá táw	'food' (thing for eating)
ábíy bá sá	'drinking water' (water for drinking)
lókàciy bá wár	'the time for the festival'
múku ma piyákə	'the day for returning'
kàbə má wár	'clothes for the festival'
átsótsaliy má kám	'poll tax' (tax of the house)
kwákwiy naazà bá taa sópən	'its breadbasket' (its granary for eating <i>tuwo</i>)

5.2. BA/MA/SƏBA + clause: Relative Clauses. General features of Miya relative clause syntax are as follows:

(1) **Relative pronouns:** The pronominals *ba/malsəba* introduce relative clauses, whether or not a nominal antecedent is present. (See §5 for discussion of gender/number agreement facts and tonal behavior of *ba/malsəba*.) The only exceptions are locative relatives with *é* 'where' as head, temporal relatives with *mùkwa* 'the day (when)' as head, and indirect questions with *yáddeeníy* 'how' as head.¹⁷

(2) **Verb forms:**

(a) **Tense/aspect/mood (TAM):** The TAM selection within relative clauses is restricted as compared with main clauses. Only the following TAM distinctions exist ("BA" stands for any of the pronominals *ba/malsəba*):

Perfective sense: BA verb ... (possible for subject relatives only)

BA *aa* { *pro-subject* } verb ... (any relative function)

e.g. səm bá buwsə 'the man who came'
 səm b(a) áa dè gharuwsə 'the man who grew old'
 səm b(a) áa mən tsiyúwsə 'the man whom I asked [him]'

Continuous/Habitual sense: BA { *na* } (pro-subject) *d-àa* verb ...

e.g. hám bá na d-àa d'ómaw 'a thing which (one) does'
 jífə b(a) aa nji d-aa lùwasə 'the man who she (*nji*) loves'

Future sense: BA { *na* } (pro-subject) { *d-éé/d-áy* } verb ...

e.g. səm bá na d-ee buwsə 'the man who will come'
 səm bá na mən d-ee tsiyùwsə 'the man whom I will ask'
 b(a) áa mən d-àa bíy buwn áaKandò 'ənáa tìy
 'the one-whom I will go to-Kano with (him)'

¹⁷Formally, indirect questions are relative clauses with no nominal antecedent or with some neutral noun such as 'thing' or 'day' as antecedent. Indirect questions are covered specifically in 13:§6.4, but because of the formal identity of indirect questions and relative clauses, some examples in the discussion of relative clauses will be indirect questions.

NOTES: (i) The verb takes the form of the participle (4:§2.1) in all TAM's in relative clauses.

(ii) The *aa* following BA in the Perfective and as an alternative to *na* in the Imperfectives (Continuous/Habitual, Future) always contracts with BA to yield *baal/maalsəbaa*. I assume that *aa* is a separate morpheme since *baal/maalsəba* have short vowels when followed directly by a verb or by Imperfective *na*.

(iii) *Də* is a proclitic with a variety of functions in the TAM system, though it is neither a pronoun nor a TAM marker on its own (see 5:§2.2.9 for details).

(b) **Negation:** The proposition within a relative clause may be negated in either of two ways. One is to use the normal *má...-úw* negative structure (5:§3). Parallel to main clauses, in Perfective relative clauses *má...-úw* follows the verb, bracketing any post-verbal noun phrases, whereas in Imperfective relative clauses *má...-úw* brackets the verb and any following noun phrases. Both Perfective and Imperfective relative clauses use only the simple participle as the verbal TAM, meaning that the placement of the negation is the main cue for TAM. Imperfective relative clauses with this form of negation require an overt subject pronoun before the verb. I illustrate here only with subject relatives and an intransitive verb. See the sections on subject relatives (§5.2.1.1) and object relatives (§5.2.2) for further examples.

Perfective: dùwakə bá vára má-w 'the horse which did not run'
 (cf. dùwakə baa dè vará-y 'the horse which ran'—y = the Totality clitic)

Imperfective: dùwakə bá tə má vará-w 'the horse which will not run'
 (cf. dùwakə baa d-àa bíy vará-y 'the horse which will run')

The other method of negation in relative clauses is to use the verb *kwaa* 'lack', parallel to the negative "possessor of ..." constructions described in §5.1.1. Since clauses of this type are not syntactic negatives, the TAM's are the normal affirmative TAM's for relative clauses described above:

vórkə ba kwáa kənà taabórma 'the boy who didn't buy a mat'
 tàabórma b(a) áa fàa kwaa kónàw 'the mat which you (ms) didn't buy'

(3) **Word order, pronominal subjects, and the AUX *də*:** As in most subordinate clauses in Miya (13, 14:§1.1), nominal subjects in verbal clauses are clause final, preceded by the postposed subject marker *aa* (11:§1.2.1ff.)—non-verbal clauses do *not* place a nominal subject in clause final position. Overt pronominal subjects within the clause are preverbal (see (2a) above for placement relative to TAM markers). In affirmative subject relatives, in affirmative relatives with clause final nominal subjects, and in affirmative clauses with indefinite subjects (corresponding to French *on*, Hausa *aka*), the proclitic *də* may precede the verb. It is optional in Perfective relatives but obligatory in Imperfective verbal clauses and all non-verbal clauses, even with pronominal subjects in first or second person. The *má...-úw* negative in a clause precludes use of *də*.

'ám má ghàraza = 'am m(a) áa dè gharaza 'the woman who grew old'

səm bá tsiyúws aa Kāsham	
= səm b(a) áa dè tsiyúws aa Kāsham	'the man whom Kasham asked'
səm b(a) áa mèn tsiyúwsə	'the man whom I asked'
dlárkáw səba va-tlən duws(a) áa 'àn tuwun	'the chickens which my wife poured (them) bran'

The general features (1-3) hold for all verbal relative clauses. In the sections which follow, I present features particular to relative clauses depending on the function of the antecedent within the clause. The section on subject relatives includes separate discussion for verbal clauses (§5.2.1.1) and non-verbal clauses (§5.2.1.2). Discussion of relativization of the "object" of 'HAVE' sentences ('the *horse* that I have') is included under instrumental relatives (§5.2.4), and discussion of non-verbal relativized locatives ('the *pot* that the beer is in') is included under locative relatives (§5.2.6).

(4) **Headless relatives:** Relatives with indefinite human antecedents (English 'one who', 'those who') and those with understood concrete antecedents ('the one that') are expressed with *balmalsəba* alone. With the exception of locatives, other relative expressions without heads in English require a neutral nominal antecedent appropriate to the semantic features of the referent.

'(the) one who/which: *balmalsəba*

báa dè raa kalpó wiy ka	'(the one) who is stronger than another'
má rábaza	'(the one [fs]) which is wet'
səba ná dōnaza	'(the ones) who are courting her'

'what' (indefinite non-human antecedent): *hám bá* ... 'thing which ...'

hám bá maraamà	'what happened to us'
hám báa mèn sənaw	'what I know'

'where': *ée* (less frequently, *íi*)

ée zàafə ká, ée zùwwun	'where you (ms) go, (that's) where I go'
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'when': *lókàciy/sáa'iy bá* ... 'time that ...'

lókàciy báa dùw a zaa súw yàayée ka	'when it is said (<i>dùw</i>) he has reached weaning'
sáa'iy báa dè taa tyy àa Luuga	'when Luga took over'

5.2.1. Subject relatives

5.2.1.1. Subject relatives with verbal clauses. The following paradigms illustrate subject relatives with masculine, feminine, and plural antecedents in Perfective and Future. The frame is

'I know the ... who came/will come'

	PERFECTIVE	FUTURE
'man'	món sən gan sóm bá buwsə	món sən gan sóm bá na dee buwsə
'woman'	món sən gan 'an má búwazà	món sən gan 'am má na dee buwazà
'people'	món sən gan səbə səba buwatlən	món sən gan səbə səba na dee buwatlən

In the Perfective, clauses with the verb directly following the relative pronoun and those with *da dè* (see (2a) in §5.2) seem equally acceptable and equivalent in meaning, though in texts the latter option is more frequent. The following paradigm illustrates the two options in the frame 'the ... who bathed'. Following that are two examples from texts, one lacking *da dè* and one including it. Here I write the contraction of *bá + áa* as it is pronounced, viz. *báa*:

'man'	səm bá bəsuwsə	= səm báa dè bəsuwsə
'woman'	'ám má bəsaza	= 'ám máa dè bəsaza
'people'	səbə səba bəsatlən	= səbə səbaa dè bəsatlən
	hám bá mar-aamà	'the thing that happened to us' ('... got us')
	hám báa dè zay sámay ...	'the thing that caused the sweepings ...'

As sections below show, subject relatives with non-verbal clauses and all relatives with verbal clauses usually contain resumptive pronouns referring to the antecedent. Subject relatives with verbal clauses usually do not. No examples were volunteered in elicitation, but I did find the following example in a text (resumptive pronoun is italicized):¹⁸

Ábáaya sənaw kidi, tó [són báa tə də tsəg(a) áaMángilə] də táasammá bəhíya ...

'After three days, he [the man who (*he*) had settled on Mangila] set out traveling ...'

Following are a few more examples of subject relatives with verbal clauses in sentence frames illustrating a variety of antecedents and internal clause structures:

mənaa táa dōna vórkə ba kəná taabórma

'I'm looking for the boy who bought the mat'

báa dè raa kalpó wiy ka, tōo, dè báy 'ám-áy

'the one who is stronger than (exceeds in strength) another, well, he gets the woman'

món bà-wán aadukuná gyám-wun bá na day dāway-wan

'I went to (the place of) my friend who will lodge me'

tūway dladlər má kwá tsəfá ka

'bring the fronds which have not dried up' ('... which lack drying'—cf. §5.2, (2b))

As noted in §5.2 (2b), there are two ways to negate relative clauses. One uses the verb *kwá* 'lack', as in the last example immediately above, the other is the regular negative *má...-úw*, as in the examples below. As further noted in §5.2 (2b), the negative in Perfective clauses follows the verb, bracketing any postverbal noun phrase, whereas in Imperfective clauses, the negative brackets the entire verb phrase. Also, in contrast to other verbal subject relatives, Imperfective negative subject relatives seem to require a resumptive subject pronoun (*tə* 'he' in the examples below):

¹⁸I give the sentence context for the clause as well. One explanation for the resumptive pronoun in the clause might be that the subject of the clause is focused ('the man who it was he who had settled ...'). Nothing about the context suggests this interpretation.

səm bá kəna má mbərg-úw 'the man did not buy a ram'
(cf. *səm baa dè kəna mbərgù* 'the man who bought a ram')

səm baa tə má kəna mbərg-uw 'the man who will not buy a ram'
(cf. *səm baa d-àa bíy kəna mbərgù* 'the man who will buy a ram')

5.2.1.2. Non-verbal subject relatives. Three generalizations emerge with respect to the form of non-verbal subject relatives:

(i) **AUX -áa:** They use the auxiliary *áa*, which contracts with the relative pronoun.

(ii) **Resumptive pronouns:** They invariably have a resumptive subject pronoun (*tə* 'he', *njə* 'she', *tlən* 'they').

(iii) **Proclitic dè:** They take a proclitic *dè* following the clause internal resumptive subject pronoun. The adjectival clause example has a focused subject within the clause, indicated by the particle *jíy*. This particle preempts the use of *dè* in other environments (cf. 12:§§2.2.1, 2.3.1.1) and presumably does so here as well. I did not elicit any "neutral" adjectival relatives, but I assume that they would use *dè*.

The negative clauses here all use the *má...-úw* negation form. I did not check the *kwà* 'lack' form of negation for such clauses, but given the literal meaning of this latter method of negation, it seems unlikely that it would be used.

EQUATIONAL: *món sən ga wíyahón dzəhə baa tə dè malvə*

'I know a Hausa (*wíyahón dzəhə*) who [he] is chief'

món sən ga wíyahón dzəhə b-aa dùw tə má malv-úw

'I know a Hausa who ["quote" he] is not chief'

ADJECTIVAL: *gàrna naama baa tə jíy gàrna*

'our leader who [HE] is (the most) esteemed'

"HAVE": *món sən ga wíyahón dzəhə baa tə d-aa dùwakə tsər*

'I know a Hausa who [he] has ("is with") two horses'

səm baa tə má dùwak-úw

'the man who [he] does not have ("is not with") a horse'

LOCATIVE: *mən aa-táa dōna taabərma maa njə d-àaləm*

'I am looking for the mat which [it] is in the hut'

dè dzara-yá sèbə sèba tlən d-eeiy ka

'one distributes it [kola nuts] to the people who are there'

tāl baa tə dè d'oo ndùwul

'the beer which [it] is in the pot'

tāl baa tə má d'oo ndùwul-úw

'the beer which [it] is not in the pot'

5.2.2. Direct object relatives. The general characteristics (1-4) outlined in §5.2 apply to direct object relatives. Nominal subjects within the clause are obligatorily clause final. With clause final subject in the Perfective, *áa dè* may optionally follow *balma/səba*. Direct object relatives permit resumptive pronouns; human antecedents show a preference for resumptive pronouns, others for Ø, but as examples below illustrate, these are not grammatical absolutes.¹⁹ The paradigms below illustrate masculine, feminine, and plural antecedents with resumptive pronouns and with the two options for nominal clause subjects. The hyphenated form (*-uwsə, -zà, -tlən*) is the resumptive pronoun. The frame is

mən aa-táa dōna ... 'I am looking for the [man/woman/people] ...'

	... whom I asked	... whom Kasham asked
'man'	<i>səm baa mən tsiy-úwsə</i>	<i>səm bá tsiy-úws aa Kàsham</i> = <i>səm b-áa dè tsíy-uws áa Kàsham</i>
'woman'	<i>'àm máa mən tsiyá-zà</i>	<i>'àm má tsíya-z(a) áa Kàsham</i> = <i>'àm m-áa dè tsíya-z(a) áa Kàsham</i>
'people'	<i>səbə səb-aa mən tsíya-tlən</i>	<i>səbə səba tsíya-tlən áa Kàsham</i> = <i>səbə səbaa dè tsíya-tlən áa Kàsham</i>
	... whom I will ask	... whom Kasham will ask
'man'	<i>səm bá na mən d-ee tsiy-úwsə</i>	<i>səm bá na d-ee tsiy-úws áa Kàsham</i>

Following are further illustrations of direct object relatives of various structures:

<i>wíy wár jíyeyí ba na d-àa d'ómuw-sə</i>	'there is a festival (<i>wár</i>) that one does (it)' (Imperfective; resumptive pronoun)
<i>wíy 'àl'áadà jíyeyí ba na d-aa d'ómaw</i>	'there is a custom (<i>'àl'áadà</i>) that one does' (Imperfective; no resumptive pronoun)
<i>ba na d'əngə-ya nduw Wuna Dingil</i>	'(a place) that one calls (it) Wuna Dingil' (Imperfective; resumptive pronoun)
<i>jífə b-áa njə d-aa lùwa-sə</i>	'the husband that she loves (him)' (Imperfective; resumptive pronoun)
<i>kàbə má tsa-tlən áa Kàsham</i> = <i>kàbə m-áa dè tsa-tlən aa Kàsham</i>	'the gown that Kasham gave them'
<i>dlórkíy m-áa dè kən(a) aa maahə ká</i>	'the chicken that the mother has bought' (Perfective; no resumptive pronoun)

The pairs of sentences below show affirmative and negative versions of corresponding clauses. The first two pairs illustrate the *má...-úw* negative pattern, the second two pairs the *kwà* 'lack' pattern (§5.2, (2b)). In the *má...-úw* pattern, note that the postverbal subject (*náka səm* 'that man') is included *within* the negative bracketing.

¹⁹The facts for resumptive pronouns for direct objects in relative clauses parallel the facts for the choice of overt pronouns vs. Ø pronouns when referring to antecedent referents in narrative. See 11:§1.3.3.

{ mbərgu b-áa dè kən-áa àa naká sóm mbərgu b-áa dè kəna m-áa àa naká sóm-uw }	{ 'the ram that that man bought' 'the ram that that man did not buy' }
{ mbərgu b-áa d-àa bíy kən-áa àa naká sóm mbərgu b-áa tə má kəna-áa àa naká sóm-uw }	{ 'the ram that that man will buy' 'the ram that that man will not buy' }
{ t̄abərma b-áa fàa kənaw t̄abərma b-áa fàa kwaa kənàw }	{ 'the mat that you bought' 'the mat that you did not buy' }
{ t̄abərma ba kən(a) áa vər̀kə t̄abərma ba kwáa kən(a) áa vər̀kə }	{ 'the mat that the boy bought' 'the mat that the boy did not buy' }

5.2.3. Indirect object relatives. The indirect object relative syntax differs from that of direct object only in that it *requires* a resumptive pronoun (hyphenated in the examples). See 11:§1.3 for morphosyntactic properties differentiating direct and indirect objects.

mən aa-táa dōna ... 'I am looking for the [man/woman/people] ...'

	the boy to whom ... gave money
'you (ms)'	vórkə b-aa fàa tsa-yá mir
'Kasham'	vórkə ba tsa-yà mir áa Kàsham
	the boy to whom ... will give money
'I'	vórkə bá na mən d-ee tsa-yà mir
'Kasham'	vórkə bá na d-ee tsa-yà mir áa Kàsham

dlórkáw sɔ́ba va-tlèn duws(a) áa 'àn tuwun 'the chickens for which my wife poured out bran'

zhàakə má na mən d-ee 'ara-tlà takən wíhi kón 'a donkey on which I will put this load'

t̄ə jíy ba faarà zahiya-yá gwàlfó ta Miya
he it-was who (one) began conferring-him chiefship of Miya

'he was the one on whom one first conferred the chieftainship of Miya'

5.2.4. Instrumental relatives. Instrumental relatives require a resumptive pronoun following the instrumental preposition *àa* 'with'. The preposition cannot be Pied Piped to the head of the clause. The resumptive pronoun is italicized.

gìti b-áa món ee ²⁰ ɓaa ghaduw aa t̄iy	'the ax with which I cut the wood'
gìti b-áa dè ɓaa gháduw aa t̄iy aa Kasham	'the ax with which Kasham cut wood'
ndùwul bá na mən d-ee díya səpən aa t̄iy	'the pot with which I will cook <i>tuwo</i> '

²⁰I do not understand the function of *-ee* following the subject pronoun, *mən*, here. It has nothing to do specifically with instrumental relatives, since I did find examples of it elsewhere, and this is the only example I found in an instrumental relative. It also is not the *ée* of future relatives (§5.2, (2a)), since this clause translated a Hausa Perfective.

ndùwul bá na d-ee díya səpən aa t̄iy aa Kasáy 'the pot with which Kasay will cook *tuwo*'
bála-n ham b-áa dè wana lén tuws aa t̄lən²¹ 'tell me what he filled his hut with'

'HAVE' constructions also use the preposition *àa* 'with'. As with instrumental relatives, when the "object" of a 'HAVE' clause (= the object of the preposition *àa* 'with') is relativized, a resumptive pronoun is required. In the examples here, this can be either *t̄iy* 'it (m)' or *njè* 'it (f)' depending on the sex of the horse. Note that the nominal subject in such clauses (*sən* 'man' in the second example) is clause initial rather than clause final, as in verbal clauses:

dùwakə b-áa faa d-aa { t̄iy
njè } 'the horse that you have ({ it (m)
it (f) })'

dùwakə b-áa sən d-aa { t̄iy
njè } 'the horse that the man has ({ it (m)
it (f) })'

5.2.5. Comitative relatives. Comitative relatives require the comitative preposition '*ənáa*' followed by a resumptive pronoun. The resumptive pronoun is italicized:

à zar súw sɔ́bə sɔ́ba na d-ee ghàna kám 'ənáa t̄lən

'he called the people that he will build the house with (them)'

món sən má b-áa mən d-àa bíy buwn áaKandò 'ənáa t̄iy-úw

'I don't know who I will go to Kano with (him)'

5.2.6. Locative relatives. Locative relatives can have a nominal antecedent followed by a relative clause formed in the normal way with *balma/səba*. When there is no nominal antecedent, locative relatives are headed by *ée* or *íy* 'where', which replaces *balma/səba*. In neither case is there any sort of resumptive pronoun:

míy v(a) àabíy d́óo [gyír ba zùws áa kyàdi]

'we poured water into [the hole (*ágyír*) that the giant rat (*kyàdi*) entered]'

gèra-l [lóm má na maa d-aa bíy z̄̀ɣm] ([z̄̀ɣm] < /zà-ghəm / 'enter-ICP')

'show me [the hut (*lóm*) that you (f.sg.) will enter]'

gèra-n muriy bá na d-ee var(a) áa dùwakə

'show me [the place (*wúriy*) where the horse (*dùwakə*) will run]'

[ágyír ba na mən d-ee vá sàmay d́áhə] kwa?

'where (*kwá*) is [the hole that I will dump the trash in (*d́áhə*)]?'

món dōn(a) aatsúw [ee sənə-tlèn áa dzàbəráku]

'I looked for eggs [where the guinea fowls (*dzàbəráku*) slept]'

dè nayá sámay n-àaMángilá [ee ná d-àa páw]

'they should look at Mangila's trash [where he was heaping (it)]'

²¹The resumptive pronoun is plural. See 8:§2.3.3 for discussion of plural agreement with the word 'thing'.

'íy na d-àa vaa sàmay aa iyáally niyfə

'where your family (*iyáally niyfə*) dumps trash'

Relativized locatives of non-verbal locative clauses follow the same patterns as those of locatives in verbal clauses, except that the subject is clause initial rather than clause final:

{ndùwul b-áa tál də d'áhə	'the pot that the beer is in'
{ndùwul ba-áa tal má d'áh-úw	'the pot that the beer is not in' }

5.2.7. Temporal relatives. Temporal relatives can have a nominal antecedent followed by a relative clause of the normal type. With the word *mùkwá* '(on) the day (that)' as antecedent, no relative pronoun is required.²²

lóokàciy bá na d-àa bíy vórkáw

'at the time (*lóokàciy*) when she is going to give birth'

sáa'iy baa də t-aa tíy(a) àa Luuga

'at the time (*sáa'iy*) that Luga attained [the chieftancy]'

múku maa də buwátlèn

'on the day that they came'

múku ma na miy d-àa hadáw

'on the day that we will gather'

mùkwá na d-àa bíy sáa tál ka

'on the day that one is going to drink beer'

5.2.8. Genitive relatives. Genitive relatives require a resumptive pronoun (italicized in the examples).

née [səm baa mỳ dawaam(a) aakán-wàsə] kón

'there is [the man at whose house we stayed]' ('... the man who we stayed at his house')

née [səm baa də kəra-ya mir nuw-sə] kən-áy

'there is [the man whose money was stolen from him (-ya)]'

vórkə bá dòná àa b-uwsə
boy who look for PS father-his

'the boy whose father looked for him'

baa də d'əma war àa dam-uwsə ká
who AUX do festival at sake-his PRM

'the one for whom the festival was performed'

5.2.9. Manner relatives. Expressions meaning 'the way that, how' use the word *yáddeeni* from Hausa *yáddà*. See 13:§6.4 for a similar example.

²²This is the derived temporal form of *múku* 'sun, day' (see 8:§5). This word can also be used in its non-derived form with a normal relative clause (see examples).

Fà dəkáy suw [yáddeenfy d-àa d'əma tál naama].
how də-1pf make beer our

'You hear [how our beer is brewed].'

5.2.10. Restrictive vs. non-restrictive relatives. I made no attempt to elicit data distinguishing restrictive and non-restrictive relative clauses, and virtually all the examples of relative clauses in texts are restrictive. The following example, given its context, must be interpreted as non-restrictive. The text from which this sentence comes has been describing customs leading up to a particular festival. In this sentence, the relative clause provides clarification by giving the name of the festival but is not a restrictive relative in that it does not distinguish this festival from some other:

... də rəfa zúw-ay sabòoda [nákən wár ba na zàr-uws áanduw "wùyak áadabə"]

'... he ferments grain for [this festival, which one calls(-it) namely "Wrestling Festival"]' (lit. "Calling of the Arena")

Structurally, this relative clause (an Imperfective object relative) does not differ from the restrictive relative clauses illustrated in sections above. The restrictive/non-restrictive distinction in Miya appears to be semantic only.

5.2.11. Generic relative clauses: 'whoever ... , anyone who ... , etc. By "generic relatives", I mean phrases translatable in English by 'whoever ... , anyone who ... , no matter who ... '. Although the phrases which I discuss and illustrate in this section have the structure of a noun phrase with a relative clause (head word + *balma* + clause), they are functionally distinct from canonical noun phrases, viz. they are a type of concessive conditional clause. The strongest syntactic evidence for this claim is that these clauses are always placed sentence initial rather than in canonical NP positions. That is, it is not possible in Miya to say the equivalent of 'I will accept *whatever you give me*'. This must be phrased '*whatever you will give me* I will accept it'. If the referent of the generic clause is the subject of the main clause (which would typically be clause initial), the main clause usually has a resumptive subject pronoun if that referent is animate, i.e. 'whoever you called, *he* did not answer'. Sentences with simple noun phrase subjects never have a pronoun subject in addition. Another, less direct reason for viewing generic phrases as a type of conditional clause rather than a simple noun phrase is their semantic equivalence to similar clauses which actually contain the concessive conditional marker *tá* 'even if, although' (14:§2.2-3). In this section, I will illustrate only those generic clauses which have the structural form of relative clauses, i.e. those clauses which are headed by *balma/səba* and could arguably be called noun phrases. See 14:§2.3 for the parallel structures with *tá*.

There are two possible structures for generic noun phrases containing relative clauses, each with a Hausa counterpart:

kóo + Q word *bá* ... -èekty (cf. Hausa *kowa* ka gani ... 'anyone you see ...')
ndyâam X *bá* ... (cf. Hausa *duk* X *da* ... 'any X that ...')

See 9:§5.1 for a full paradigm of the "*kóo*- + Q word" universally quantified forms. See 9:§5.2 for a general discussion of the quantifier *ndyâam* 'all'. As it happens, in my data,

both elicited and textual, the only examples available for the *kóo-* + Q word form have the antecedent bound to the subject position within the modifying clause. Based on comparable structures from Hausa and other Chadic languages, I have no reason to believe that a *kóo-* + Q word antecedent could not also be bound to other noun phrase positions. As for a difference in meaning between the two structures, I argue in 9:§§5.1-2 that the *kóo-* + Q word structure attains a universal/generic interpretation by ranging (exhaustively) over a set meeting the criteria expressed here by the relative clause, whereas the *ndyâam* X *bá* form attains a universal/generic interpretation by referring as a whole to a set which meets the criteria. The examples below are arranged according to the position bound within the clause.

Subject

[kóowèena bá zàra Ndúwy-eekiy], t́ má buws-uw

'[no matter who calls Nduya], he will not come'

[kóowèenee jirkú ba buwy-eekiy], t-àa ghóm-uws aadèna páratsə

'[any monkey which sustains a fracture], he will climb up a Cassia tree'

(more freely, 'even if a monkey sustains a fracture, he can climb a Cassia tree')

[kóowèena bá na dōona-z-eekiy] dè tərá-tlā kabə má wár

'[whoever is courting her] sews her a festival gown'

[kóoweeniy báa tə d-aa lay akán-wàs-éekiy] də raβa zúw-ay
anyone who he də-with son house-his-"ever"

'[anyone who has a son in his household] ferments grain'

[kóowèenà báa vórk aakan-wàs-éekiy] də 'arā tál-ay

'[anyone with a son in his house] stocks up on beer'²³

[ndyâam báa dè zara Kàsham], t́ mà háyá-w

'[no matter who called Kasham], he did not answer'

[ndyâam bá rəmə ləbāsə], kwáfa vənuwsə dəm(a) aa tá'uwso

'[whoever eats an onion], well his mouth will make an odor'

ndyâam hám báa dè kəmaya-tlón], fāa shədíy

'[whatever is spoiled], discard it'

Direct Object

[ndyâam báa də zar(a) áa Ndúwya], t́ má haya-w
all ba AUX call PS Nduya he NEG answer-NEG

'[no matter who Nduya called], he did not answer'

[ndyâan hám báa dè kər(a) áa àa bá kír] dè ma dómá-yà amfaaniy-úw
all thing ba AUX steal pln PS "possessor" theft Sjn NEG do-him use-NEG

'[whatever a thief steals] will be of no use to him'

²³The generic clause of the preceding example and this one have similar, if not identical, meaning. The preceding one contains a real relative clause with a 'HAVE' construction (11:§4.3). The footnoted example contains a "possessor of ..." phrase (§5.1.1) rather than a true relative clause.

Indirect Object

[ndyâam báa mèn bəla-yá làabáariy], dè dəkayá màamáakiy
all ba I tell-him news Sjn feel surprise

'[whoever I tell the news to], he will be surprised'

Locative

[ndyâan ée dzàrée làabáariy], dè dəka-y(a) áa səbə
all where spread news Sjn hear-it PS people

'[wherever he spread the news], the people heard it'

Instrument

[ndyâan hám báa də wana kám-wàs áa tləm] j-áa dáyday-áy
all thing ba AUX fill house-his with it Prt-with exactness-Tot

'[whatever he fills his house with] it's just fine'

Temporal

[ndyâan lóokàciy baa dè nay-aamà] dè tərée-m(a)-áy
all time ba AUX see-us Sjn greet-us-Tot

'[whenever he sees us] he greets us'

To conclude this section, I note the two following sentences from my data (all elicited examples) which do not fit the patterns above or the *tá* concessive pattern, even though they were volunteered as translations of Hausa sentences comparable to those above. They appear to be independent clauses in parataxis with the following clause.

[kóomee də kəmaya-tlón], fāa shədí-ay
anything AUX spoil-ICP, you-Sjn discard-Tot

'[if anything is spoiled], discard it'

[kóowàyya kunt-éekiy njə mbíyya], sáy day à bay-tlá mà múk-uw
every eggplant-"ever" it red "unless" Pf carry-it NEG sun-NEG

'[every eggplant is red], unless it hasn't been taken into the sun'

5.3.BA/MA/SəBA with other sentential complement types. Section §5.1 describes complements to *ba/malsəba* without a clausal structure. Section §5.2 describes relative clauses, i.e. clausal structures which are modifiers of nominal heads. *Ba/malsəba* can also head sentential complements which are not, strictly speaking, relative clauses. Consider the following example from a text:

báa dùw samay nuw-sə də rá àa casə ká
who "quote" trash of-him AUX exceed in amount PRM

'the one whose trash was the greatest in amount'

The translation suggests that this is a genitive relative (§5.2.8), but structurally, the complement clause cannot be a relative clause. First, the AUX *də* shows that the TAM is a Focused Subject Perfective (§2.2.2), i.e. the clause alone might be translated, "It was HIS TRASH that was greatest in amount," a translation confirmed by the context, where the

length of time that the two rivals for the first chieftancy of Miya have spent at the location is being determined by the relative sizes of their community rubbish heaps. This TAM would not be permitted within a relative clause (cf. beginning of §5.2 for summary of the possible TAM's within relative clauses). Second, the nominal subject within the clause is preverbal whereas nominal subjects within relative clauses are invariably postverbal.

The complement to *báa* here is a "quote" clause, introduced by the (in)direct quotation marker *dùw* (13:§6), which can be followed by any type of clause which could function as an independent main clause. A more literal translation of this example would thus be, "The one who it is said that HIS TRASH was greatest in amount," though even this translation is somewhat misleading, as it uses an English relative clause.

6. Conjoined Noun Phrases

Miya conjoins noun phrases using the prepositions 'əfáa' or 'ənáa'.²⁴ These two words are interchangeable. This is the same preposition used for comitative phrases (see 11:§1.6 for examples and further discussion of these prepositions). The preposition may not be used to conjoin any other phrasal types. Note also that Miya differs from many Chadic languages in that it has a different preposition, *àa* 'with', for instrumental uses.

'əfáa'/'ənáa' have a final floating low tone which replaces the tone of the following domain, regardless of its underlying tone (see 3:§4 for discussion of floating tones):

Affected domain	Preposition + N	Citation	After demonstrative
toneless	'ənáa zhaakə	'with a donkey'	zháakə
	'ənáa dlərkíy	'with a chicken'	dlərkíy
L	'ənáa mbərgu	'with a ram'	mbərgu
H	'ənáa mədə	'with a goat'	mədə
	'ənáa dər-wétli	'with a leopard'	dər-wétli

Following are examples of conjoined noun phrases in various functions:

Preverbal Subject

Kásham 'ənáa Vəziya dəm aacám

'Kasham and Vaziya did work'

Postverbal Subject

Nákən tál ba na d-àa b́y ṕla kùwá, t̀ j́y bá na d-àa b́y ghəm-uws
this beer that AUX d-1pf Prt mix indeed it "it-is" that AUX d-1pf Prt mount-it

áaghàma zúw àa bá wár ka 'ənáa t̀vəm niywasə 'əfáa ńywy 'yanuwa.
on sorghum PS possessor festival PRM and wives his and other relatives

'This beer which is to be brewed, it is that one for which the festival presider and his wife and his family will step onto the sorghum.'

²⁴These both have cognates in other Chadic languages. 'ənáa' is cognate with Ngizim *náa* 'with, and (conjoining noun phrases)' (Schuh 1981). 'əfáa' is cognate with Bolanci *kà* and probably Hausa *gà*. The *f* arises through a series of sound changes **k* > **h** > *f*, seen also in the second masculine singular pronoun and other words.

jée faarà tákay àa Mangila 'ənáa Gitúwà ...
then begin arguing PS Mangila and Gituwa

'then Mangila and Gituwa began arguing ...'²⁵

Direct Object

mán k̀na mbərgù 'ənáa mədə

'I bought a ram and a castrated goat'

də d'ahəna-tla zaniyayaw də za-tla kakər 'ənaa azurfa t-aakən-za

'she [mother] wrapped her [daughter] in cloths (and) she put onto her shoes and rings (silver for-her-hands)'

Conjoined noun phrases within a comitative phrase

jée tl-úwsə 'əfáa 'ən t̀wsə 'əfáa wùləmíy niywasə gan tíy

'then he arose with his wife and his children as well as himself'

Like many, if not all Chadic languages, Miya often uses *asymmetric coordination* (Schwartz 1989) where European languages would use conjoined noun phrases such as those above. In asymmetric coordination, a plural pronoun appears in the syntactic position of the noun phrase in question and a singular noun or pronoun appears as a comitative phrase, e.g.

míy bà-ma 'ənáa fíy 'you (sg) and I went' (lit. 'we went with you (sg)')
we go-ICP with you (ms)

As the translation shows, only two actants are involved even though the literal English translation would indicate more than two. See 11:§1.6.2 for more detailed discussion and examples.

7. Order of Constituents in "Long" Noun Phrases and "Heavy Shift"

A maximal non-complex noun phrase has the following word order (where "non-complex" means "containing no relative clause"):

DEM ADJ N GEN ADJ NUM PRM

tákən dómamáw gyáruw-ya²⁶ k̀di 'these three big trees'
these trees big-fs three

²⁵This sentence could have the alternative interpretation, 'Then Mangila began arguing with Gituwa ...'. However, the context suggests that they are arguing back and forth, not that Mangila has initiated the dispute—cf. 9:§3.2.3, example (57).

²⁶The form of the adjective, *gyáruw-*, is plural, but the agreement suffix, *-ya*, is feminine (singular)—cf. the adjective form *gyár-ya* two examples lower referring to a singular noun. Normally adjectives modifying a plural *inanimate* noun (such as 'trees') would have the morphologically singular but gender marked form (8:§2.3.3). The present example is the only one in my data with this mixture of number on the adjective itself vs. the agreement affix.

níykin cúw rín-niy dərbitim 'these ten black goats'
 these goats black-pl ten

tákən gára-má dəm = tákən dóm gyár-ya 'this big tree'
 this big-"of" tree this tree big-fs

kóm-án gəbə-na 'my little finger'
 finger-my little-ms

wár naamà gar-ná na vùwá Miya ndyān 'our great festival of all the Miya
 festival our big-ms of community Miya all community'

The normal position for adjectives is following the noun (§4.1), but when they do precede the noun they follow the demonstrative (see third example).

When a noun phrase contains a *balma/səba* phrase (typically a relative clause), there is a tendency to shift this phrase to the end of the sentence ("heavy shift"). Far and away the most frequent occurrence of this in texts involves an indefinite noun phrase in an existential sentence, as in the following examples:

wíy wár jíy eeyí ba na d-àa dóm-uwsó
 a certain festival it is there which (m) AUX də-1pf do-it

'there is a certain festival which they celebrate'
 ("a certain festival there is which they celebrate")

írìn wiya gwán jíy eeyí maa na zara-z(a) áanduw "dango"
 type a certain locust it is there which (f) AUX call-it quote dango

'there is a certain type of locust which is called "dango"'

wíy han jíy eeyí səba na zàra-tlən áanduw "apar"
 a certain thing it is there which (pl)²⁷ AUX call-it quote apar

'there is a certain thing which is called "apar"'

Heavy shift is not restricted to this environment. In the first example below, the clause is extraposed to the position after the totality marker (Tot) -áy (§7:2.1). In the second example, the clause is extraposed over the Previous Reference Marker *ká*, which, although itself part of the noun phrase, would usually be the last item in the noun phrase (see §5.2 and the various subsections of §5.2 above for numerous examples where *ká* is phrase final).

súw bəhíya avíwa dób-ay ma na d-àa zara-z(a) áanduw "Atsámà"
 then going interior (of) area-Tot which (f) AUX də-1pf call-it quote Atsama

'then they go to an area which they call "Atsama"'

àadfoo niyká dzáfə vətleeniy ká səba na dōona-za
 in those men five PRM who AUX courting-her

'among those five men who are courting her'

²⁷The agreement of the relative marker is morphologically plural although the antecedent is semantically singular. See 8:§2.3.3 for agreement with the word 'thing'.

One further phenomenon which might be considered a type of heavy shift is *asymmetric coordination* (see last example in §6 just above and 11:§1.6). Asymmetric coordination provides a way to avoid having a heavy coordinate noun phrase nested within a sentence.

Heavy shift is by no means grammatically obligatory. Thus, one can easily elicit sentences such as the following with a rather heavy noun phrase which has not undergone any sort of shift:

vərkə bá na d-ee tsa-yà mīr áa Kāsham kwá?
 boy whom AUX də-1pf give-him money PS Kasham where

'where is the boy to whom Kasham will give money?'

THE SYNTAX OF SIMPLEX CLAUSES

1. Verbal Declarative Sentences

1.1. Basic verbal clause structure

1.1.1. SVX vs. VXS. Miya verbal clauses with *nominal subjects* have two main clausal orders, SVX and VXS, where S = nominal Subject, V = Verb, and X = objects (direct and indirect), locatives, and instrumentals. In neutral independent clauses, either order is possible. However, in a number of types of subordinate clauses, only VXS order is possible. The two orderings are discussed and illustrated in detail in §1.2.1.

When both *direct object and indirect object* are present and both are nominal, the direct object precedes the indirect object (see end of §1.3.1 for discussion and examples). Other nominal constituents such as instruments and locatives follow objects (see §1.13 for more discussion).

Pronominal subjects and objects are clitics to the verb. Subject clitics are always preverbal, even in contexts where nominal subjects must be postverbal. When both direct and indirect objects are present and one is pronominal, the pronominal object must be cliticized to the verb. If both are pronominal, the indirect object is cliticized and the direct object follows it (see §1.3.2).

1.1.2. Placement of discontinuous markers *súw...áy* Totality and *máltà...úw* Negation. In addition to lexical clausal elements (subjects, objects, verbs, and other nominal and adverbial constituents), there are two discontinuous clausal operators. These are *súw...áy* Totality (7:§2) and *máltà...úw* Negative (5:§3). In the Negative, *tà* is used for Negative Subjunctive and *má* for negation of all other TAM's (5:§§3.1-4). Totality and Negative are mutually exclusive. The placement of their respective discontinuous elements are nearly identical, both taking the following pattern (Subject = nominal or pronominal subject, X = any predicate elements such as nominal objects, locatives, etc., CLIT₁ = *súw* or *máltà*, CLIT₂ = *áy* or *úw*):

Perfective: Subject V(-pro) CLIT₁ X CLIT₂

All other TAM's: Subject CLIT₁ V(-pro) X CLIT₂

Following are illustrations of these orders:

Perfective:	mán tsà-yá	suw m̀r-áy	'I gave him money'
	I-Pf	give-him Tot ₁ money-Tot ₂	
	à bəta má	zhaak-uw	'he didn't tie the donkey'
	Pf tie NEG ₁	donkey-NEG ₂	

Other TAM's:	tà s-áa	bətá zhaak-ay	'he will untie the donkey'
	he Tot ₁ -Ipf	tie donkey-Tot ₂	
	fà ta	bətá zhaak-uw	'don't untie the donkey'
	you (ms) NEG ₁	untie donkey-NEG ₂	

These discontinuous constructions also appear in non-verbal sentences, where they bracket the entire predicate, parallel to non-Perfective verbal TAM's. See §4 for examples in various types of non-verbal sentences.

The one difference in distribution between the discontinuous Totality and Negative markers arises with postverbal nominal subjects. In these cases, CLIT₂ of the Totality precedes the subject, but CLIT₂ of the negative follows it:

à tənzo súw	màrd-áy	aa Ndùwya	'Nduya planted millet'
Pf plant Tot ₁	millet-Tot ₂	PS Nduya	
à tənzo má	màrd	aa Nduwya-w	'Nduya did not plant millet'
Pf plant NEG ₁	millet	PS Nduya-NEG ₂	

1.2. Subjects

1.2.1. Position of nominal subjects: the postverbal subject marker *àà*. There are two orderings for nominal subjects: *preverbal* and *postverbal*. In some clause types, both orderings are possible with no clear difference in meaning; in some clause types, only postverbal order is possible; and in some clause types, only preverbal order is possible. A postverbal subject is obligatorily preceded by a postverbal subject marker (PS), *àà*. I structure the discussion according to clause types with the respective orders.¹

1.2.1.1. Preverbal and postverbal subject orders both possible

1.2.1.1.1. Independent main clauses. By "independent main clauses", I mean neutral (i.e. no questioned or focused nominal or adverbial constituents) declarative statements in any TAM. Preverbal nominal subject order predominates in my corpus of elicited data, and it appears to predominate, though less obviously so, in texts. However, this may be an artifact of elicitation techniques and/or pragmatic factors. The language of elicitation was Hausa, which has strict SVX order for neutral independent main clauses. Inasmuch as sentence initial is a possible position for nominal subjects in Miya, Vaziya, my informant, may have preferred this as the most obvious translation for SVX Hausa sentences. In my original fieldwork, I did not check alternative orders in main clauses, but in a brief visit to Miya in 1996 (see 1:§3) I looked specifically at this issue with a variety of sentences with nominal subjects. Though Vaziya first volunteered SVX order, he readily accepted as quite normal the alternatives with VXS order in the TAM's that I checked, affirmative and negative, with and without Totality marking. In §1.2.3, I suggest that *all* independent main clauses with preverbal nominal subjects may, grammatically, actually have the form TOPIC-COMMENT rather than SUBJECT-PREDICATE. A study of natural spoken discourse might shed light on this hypothesis, but I lack sufficient data to pursue the issue.

¹The discussion in §1.2.1 follows, and in some cases repeats verbatim that in Schuh (1996). See that paper for the comparative Chadic and universal linguistic contexts.

In texts, clear examples of "independent main clauses" with nominal subjects are not particularly common. Most "main clauses" in texts tend to be part of connected narrative (6:§3.1—see §1.2.1.1.2 for subject ordering in narrative). Clauses that are not part of the narrative flow come up mainly in reported dialogue or in side comments, and this type of material more often than not has first or second person subjects or pronominal subjects rather than nominal subjects.

Below are elicited examples showing preverbal and postverbal subjects in a number of configurations and TAM's:

AFFIRMATIVE PERFECTIVE

	Preverbal		Postverbal	
(w.o. Tot)	Ndùwya a tənzə mǎrdə Nduya Pf plant millet		à tənzə mǎrd aa Ndùwya Pf plant millet PS Nduya	
				'Nduya planted millet'
(w. Tot) ²			à tənzə súw mǎrd-áy aa Ndùwya Pf plant Tot millet-Tot PS Nduya	
				'Nduya planted millet'
(w.o. Tot)	Ndəkay a dər cáatə Ndəkay Pf grind pepper		à dər cáat aa Ndəkay Pf grind pepper PS Ndəkay	
(w. Tot)			à dər súw càat-áy aa Ndəkay Pf grind Tot pepper-Tot PS Ndəkay	
				'Ndəkay ground pepper'
(w. Tot)	dùwakə a vár s-áy horse Pf run Tot-Tot		à var s-áy aa dùwakə Pf run Tot-Tot PS horse	
				'the horse ran away'
(w. Tot)	ghàd'uw tsəfə s-ay wood dry Tot-Tot		à tsəfə s-aa ghàd'uw ³ Pf dry Tot-PS wood	
				'the wood dried up'

AFFIRMATIVE IMPERFECTIVE (with Totality only—cf. 5:§2.2.3.5)

	Preverbal		Postverbal	
	Ndùya s-áa tənza mǎrd-áy Nduya Tot-Ipf plant millet-Tot		s-áa tənza mǎrd-ay aa Ndùwya Tot-Ipf plant millet-Tot PS Nduya	
				'Nduya will plant millet'

²I did not elicit Perfective forms with Totality for the transitive verbs with preverbal subjects. As noted in 7:§2.2, Perfective clauses with overt nominal complements to the verb are generally volunteered without the Totality constructions because such complements tend to be in pragmatic focus. Among the examples here, those with postverbal subjects were also first volunteered without Totality, but I specifically tested the Totality with postverbal subjects to find out how the discontinuous Totality markers were placed. See 7:§2.1-2 for examples of the sentence types missing here.

³The second clitic, -áy, of the Totality is omitted in the variant here with the postverbal subject. As noted in 7:§2.1, it is common with intransitive verbs in general to omit the -áy portion of the Totality. Most of my examples from elicitation with intransitive verbs and postverbal subjects omit the -áy.

Ndəkay s-áa dərə cáat-ay s-áa dərə cáat aa Ndəkay
Ndəkay Tot-Ipf grind pepper-Tot Tot-Ipf grind pepper PS Ndəkay
'Ndəkay will grind pepper'

dùwakə s-áa vará-y s-áa vara-y áa dùwakə
horse Tot-Ipf run-Tot Tot-Ipf run-Tot PS horse
'the horse will run away'

NEGATIVE PERFECTIVE

Preverbal		Postverbal	
Ndùwya tənzə má mǎrd-úw Nduya plant NEG millet-NEG		à tənzə má mǎrd áa Ndùwya-w Pf plant NEG millet PS Nduya-NEG	
			'Nduya did not plant millet'

Ndəkay a dər má càat-úw Ndəkay Pf grind NEG pepper-NEG		à dər má càat áa Ndəkay-úw Pf grind NEG pepper PS Ndəkay-NEG	
			'Ndəkay did not grind pepper'

dùwakə a vár ma-w horse Pf run NEG-NEG		à vár ma dùwak-úw Pf run NEG horse-NEG	
			'the horse did not run'

NEGATIVE IMPERFECTIVE

Preverbal		Postverbal	
Ndùwya má tənza mǎrd-uw Nduya NEG plant millet-NEG		tə má tənza mǎrd áa Ndùwya-w he NEG plant millet PS Nduya-NEG	
			'Nduya will not plant millet'

Ndəkay má dərə cáat-uw Ndəkay NEG grind pepper-NEG		njə má dərə cáat aa Ndəkay-úw she NEG grind pepper PS Ndəkay-NEG	
			'Ndəkay will not grind pepper'

dùwakə má vará-w horse NEG run-NEG		tə má var áa dùwak-úw it NEG run PS horse-NEG	
			'the horse will not run'

Following are a few further examples of the two orders from texts:

PREVERBAL: tò, a-'iyká Mángá à miy-tá s-ay
OK thereupon Masanga Pf die-ICP Tot-Tot
'OK, thereupon Masanga died'

bàzaniy d-aa d'əhónà tsətsaliy j-ábəfá-zà
young woman d-Ipf tie cauries it's-front-her

'a young woman would wear (a string of) cauries on her front'

Áningi à taa má Míyá-w
 Ningi Pf eat NEG Miya-NEG
 'Ningi did not conquer ("eat") Miya'

POSTVERBAL: tòò, à-'iyká shiykèenán à gwarza s-áa vùwagwahi
 OK thereupon that's it Pf grow Tot-PS town
 'OK, thereupon, that's it, the town grew'

d'óo naka lookàciy ká, à boo sáa àa zuw ká
 during that time PRM Pf go out Tot PS sorghum PRM
 'during that time, the sorghum will have sprouted'

kwáa d'èng(a) áanduw s-áa bùwá-tlèn àa sàbà yaakíy ka ...⁴
 when say Qt Tot-Ipf come-ICP PS people war PRM
 'when one says that the war makers are coming ...'

tòò, à gəsə súw mùlkíy-áy aa wuya sàbà
 well Pf wrest Tot power-Tot PS Hausas
 'well, the Hausas took power'

dúw, "Tòò, dàway-tla-y!" àa jifə naaza
 quote OK put down-her-Tot PS husband her
 "'OK, put her down!" said her husband'

1.2.1.1.2. Consecutive clauses in narrative. In narrative, clauses which form the sequential backbone use the Subjunctive, usually marked with a proclitic *də* when the subject is 3rd person (6:§5.2.4). Both preverbal and postverbal order for nominal subjects are common. Preverbal nominal subject order predominates (cf. §1.2.3), but there is evidence that at least some preverbal nominal subjects are topics rather than grammatical subjects (see Schuh 1996 and 12:§5).

PREVERBAL:

kwáa g-áa tsùway ká, təvam də dínga zábaw
 when "be" morning PRM women Sjn carry-on dancing
 'when the dawn comes, the women carry on with dancing'

dàga d'am éewíya, 'án ta sòn n-aaGítuwà də baa-z(a) ée kùw(a) aabíy
 when arrive day, wife-of-man-of-Gituwa Sjn go-ICP to-draw water
 'when day broke, the wife of the Gituwa man went to draw water'

POSTVERBAL:

də nj-ay àa ma Laḃee duw Láḃèe má d'íya-w
 Sjn refuse-Tot PS mother Laḃe Qt Laḃe NEG cook-NEG
 'Laḃe's mother (then) refused saying Laḃe would not cook'.

⁴The clause with the postverbal subject is an embedded quotation (13:§6.2). Such clauses have all the relevant syntactic properties of independent main clauses.

... shíykèenán də zara-z(a) áa niy bàa-za
 OK Sjn call-her PS & Co. father-her
 'well then, her father and friends call her [girl about to be married]'

dàga fàarà dawak áa (aa)bíy, də dzara-tlèn aa sàbà
 when begin falling PS water Sjn disperse-ICP PS people
 'when it began raining, the people dispersed'

1.2.1.1.3. Complement clauses to verbs. Complement clauses of verbs (13) may have either preverbal or postverbal subjects. Verbs taking such complements include *sən* 'know (that)', *lakə* 'fear (that)', *luw* 'want', *à kàmáatà* 'be fitting (that)', *mar* 'find (that)' and probably others.⁵ Following are two examples where preverbal and postverbal position of the subject in the complement were given as equivalent. Below those paradigms are some additional examples of the two orders in verbal complements.

Preverbal

mən sən bàakoo-dzəhə à kəra mír
 I-Pf know guest-male Pf steal money

'I know that the guest stole the money'

mən mar gəḏanzakway a tiy 'afuw
 IOPf find hyena Pf kill goat

'I found that a hyena had killed the goat'

Postverbal

mən sən à kəra mír àa bàakoo-dzəhə
 I-Pf know Pf steal money PS guest-male

mən mar à tiy 'afuw aa gəḏanzakway
 I-Pf find Pf kill goat PS hyena

PREVERBAL:

míy sən súw acám mar-mà s-áy
 we know Tot work get-us Tot-Tot
 'we know that work has overtaken us'

mèn aa zay Nduíwà də buwáy mír
 I Ipf cause Nduya Sjn bring money
 'I'll have Nduya bring money'

POSTVERBAL:

kóowèenékly sən súw s-aa-táa buwa-tlèn aa səba yaakíy
 everyone know Tot Tot-Ipf come-ICP PS ones-who war
 'everyone knows that the war makers are coming'

mèn áa lùw də b-úws aa Kàsham rədzà
 I Ipf want Sjn come-ICP PS Kasham afternoon-in
 'I want Kasham to come in the afternoon'

mèn aa-táa làkaw tá biy t-úwn aa ghəns-úw
 I Ipf fear NEG Prt "eat"-me PS God-NEG
 'I am afraid lest rain pour on me'

⁵I did not elicit detailed data on verb complement clauses, and the range of examples in texts is sparse, meaning some questions about possible subject configurations remain unanswered. TAM of the complement does not play a role in subject placement, e.g. *sən* 'know (that)' has free TAM choice in its complements whereas *luw* 'want' requires Subjunctive, yet both allow both preverbal and postverbal subjects in their complements.

1.2.1.1.4. Purpose and reason clauses. Clauses introduced by the conjunction (*à*)*dama* 'because, in order that' can have either preverbal or postverbal nominal subjects.

PREVERBAL:

kál-iy-m(a) áatsákən takən kən adama dārhə ndón ndəm-áy
let's cut through bush this here because road circuit circuiting-Tot

'let's pass through the bush here because the road makes a detour'

də z-uwsə d'óo d'ónak aaníyhi... àadama zuw nuwsə də kəmay-uws-áy
Sjn enter-ICP into looking for fetish so that grain his Sjn spoil-ICP-Tot

'he goes about seeking a fetish ... so that his [rival's] grain will spoil'

POSTVERBAL:

món fày aakúw aadama díya sɔpən aa Kàsáy
I fan fire so that cook tuwo PS Kasay

'I built a fire so that Kasay could cook *tuwo*'

mén pùwa mír nuwun àadama tá biy kíy(a) aa sèba kí-uw
I hid money my so that NEG Prt take PS ones who theft-NEG

'I hid my money lest thieves steal it'

1.2.1.2. Postverbal order for subjects required

1.2.1.2.1. Relative clauses. Relative clauses with internal nominal subjects allow only the postverbal subject ordering. See 10:§§5.2.2-11 for additional examples.

tàabórma ba kèn áa vèrkə 'the mat that the boy bought'
mat which buy PS boy

vèrkə ba tsa-yà mír áa Kàsham 'the boy to whom Kasham gave money'
boy who give-to him money PS Kasham

giti baa dè faa gháduw aa tìy aa Kàsham
ax which Pf split wood with it PS Kasham

'the ax with which Kasham split wood'

1.2.1.2.2. Adverbial subordinate clauses. All adverbial subordinate clauses other than purpose/reason clauses (§1.2.1.1.3) require that nominal subjects be postverbal. The clause types in question are those introduced by the conjunctions *kwáa* 'when, if' (= Hausa *idan* expressing temporal relation to main clause), *tá(n)* 'if' (= Hausa *idan* expressing condition required for main clause to take place and also Hausa *koo* in concessive conditionals), *dàga/dàgáy* 'when' (= Hausa *dà* expressing completed events), *j-ée* 'then' (similar to Hausa *sai* in sequential narrative), *bà* 'if, were it that' (= Hausa *dàa* counterfactual), *kàafin* 'before', and *àbáaya* 'after'. See Chapter 14 for discussion and more examples.

kwáa náya kám aa 'iy ká, dè tabəna gəɗanzakway-áy
when see house PS dog when Sjn abuse hyena-Tot

'when a dog is in sight of his house, he abuses the hyena'

tá d'òo m(a) áa ghəns-úw, míy má d'óma tàwaz-úw
if fall NEG PS "God"-NEG we NEG do planting-NEG

'if it doesn't rain, we won't do the planting'

dàga zara-tlən aa Kàsham, dè buwá-tlən
when call-them PS Kasham Sjn come-ICP

'when Kasham called them, they came'

j-ée gəra-yá ee bàw-uwsə aa sən n-aaMángilə
then show-him where exit-ICP PS man of-Mangila

'then the man from Mangila showed him where he had come from'

j-ée faarà tákay àa Mángilə 'ənáa Gítúwà ...
then begin arguing PS Mangila and Gituwa

'then Mangila and Gituwa began arguing ...'

bà zar-tlən áa Kàsham ká, à buwíy-tlən
if call-them PS Kasham if Pf come-ICP

'if Kasham had called them, they would have come'

kàafin dè bíy ná àa tliwiy, ...
before Sjn Prt be-cooked PS meat

'before the meat was done cooking, ...'

tòo, àbáaya miyahiy-uwsə aa bu-wun... jée zàra-wun dè yada aa meemeeny⁶
well after death-ICP PS father-my then call-me Sjn agree PS Miyas

'well, after my father died, ... then I was called and the Miyas agreed (that I be chief)'

1.2.1.3. Preverbal order for subjects required: word questions and focus.

One class of clauses seems never to admit postverbal nominal subjects. These are sentences where a constituent is questioned or syntactically focused, such as those below.⁷ See 12:§2 for discussion and further examples.

wàa d'ó tənza zuw-a? 'who planted sorghum?'
who FPF plant sorghum-Q

but *d'ó tənza zuw áa wàa? (with postverbal *wàa* 'who?')

Q: m-áa mbyára kábə tafa? 'what tore your gown?'
what-FPF tear gown your (ms)

⁶The *àbáaya* 'after' clause here is a curious blend of nominalization and finite clause. The verb *míy-* 'die' has the form normally reserved for a verbal noun plus expressed object (10:§3.4.2), but since the verb is intransitive, the construction here has to be a verb plus Intransitive Copy Pronoun. Moreover, the construction cannot be interpreted nominally as 'after his death' because there is an expressed subject *bù-wun* 'my father'. The only interpretation is therefore that this is a finite clause but with a gerund used in place of the participle as would normally be the case (4:§2). See 14:§9.1, first example, for another example of the same type of construction.

⁷I did not explicitly check for ungrammaticality of postverbal subjects in sentences with constituents *other than* subjects questioned or focused. However, unlike other independent clause types (§§1.2.1.1.1-2), postverbal subjects never show up in any sentences with questioned or focused constituents, either in elicited data or texts.

A:	ghàḏuw	dó	mbyára-zà	'WOOD tore it'
	wood	FPf	tear-it	
Q:	Ndùwya	náy	wèè?	'who did Nduya see?'
	Nduya	see	who	
A:	Ndùwya	náy-mà	míy	'Nduya saw US'
	Nduya	see-us	us	

There are pragmatic reasons for lack of postverbal subjects in such clauses. When Miya *subjects* are questioned or focused, they obligatorily fall in sentence initial position, obviously precluding their postverbal ordering. *Non-subjects*, when questioned or focused, remain in situ. Since the neutral position for all non-subjects is postverbal, the postverbal placement of a subject together with a questioned or focused non-subject would create a pragmatic clash, i.e. a postverbal subject would interfere with the place of privilege for the questioned or focused constituent. This is the mirror image of the situation in Bade, for example, where the neutral position for subjects is preverbal, but subjects, when questioned or focused, are placed postverbally. In sentences with questioned or focused subjects and full nominal objects, speakers frequently place the objects in sentence initial position as topics, thus reserving the postverbal position for the subject (Schuh 1982a).

1.2.1.4. Positioning of postverbal subjects with respect to other constituents. In the preceding sections, I have made only a division between *preverbal* and *postverbal* position for nominal subjects, but I have not been precise about what these terms mean. Preverbal subjects are immediately preverbal, with the only possible intervening elements being aspect markers. Postverbal subjects might better be described as *Post Verb Phrase*, because they follow the verb and most other postverbal constituents. The following placements of postverbal subjects have been illustrated above:

POST-DIRECT OBJECT: §1.2.1.1.1, numerous examples; §1.2.1.1.2, 3rd POSTVERBAL example ("object" is a nominalized complement to a verb); §1.2.1.1.3, 1st two examples; §1.2.1.1.4, 1st POSTVERBAL example; §1.2.1.2.1, 2nd and 3rd examples; §1.2.1.2.2, 1st example

POST-LOCATIVE: §1.2.1.2.2, 4th example

POST-INSTRUMENT: §1.2.1.2.1, 3rd example (both direct object and instrument)

The only elements which I have found to follow a postverbal subject are temporal adverbs and the phrase final marker of negation:

TEMPORAL ADVERB FOLLOWING SUBJECT: §1.2.1.1.3, penultimate example

NEGATION FOLLOWING SUBJECT: §1.2.1.1.1, numerous examples; §1.2.1.1.3, last example of POSTVERBAL; §1.2.1.1.4, last example of POSTVERBAL; §1.2.1.2.2, 2nd example

1.2.2. Referential pronominal subject vs. Ø subjects. Sentences with first or second person subjects always have overt pronominal subjects which *precede* the verb, regardless of TAM or syntactic environment (see relevant subsections of 5:§2 and 8:§1.2 for paradigms).

With the exception of clauses in the Imperfective, verbal clauses without a nominal subject normally have Ø 3rd person subject expression.⁸ Imperfective clauses usually have pronominal 3rd person subjects. Elicited data make these generalizations clear: *intransitive verbs* mark the person, number, and gender of the subject by a suffixed Intransitive Copy Pronoun (ICP—5:§4.1), yet in elicitation, sentences in the Imperfective were volunteered with overt pronominal subjects; with *transitive verbs*, where there is no overt marking of subject features on the verb, TAM's other than Imperfective were still volunteered without overt 3rd person subjects. In the table below, I include only forms and meanings that I actually elicited with these particular verbs (using Hausa, which always has overt pronoun subjects).

PERFECTIVE:	à ghar-ta s-áy	'he grew old'
	à ghar-tla s-áy	'she grew old'
	à ghar-tlèn s-áy	'they grew old'
	à zar s-áy	'he/she/they called'
HORTATIVE:	tà boo-ta-y	'he should go out'
	tà boo-tla-y	'she should go out'
	tà boo-tlèn-ay	'they should go out'
	tà zar	'he/she/they should call'
SUBJUNCTIVE:	... dè bəs-uwsə bəsáw	'... that he bathe'
	... dè bəsa-za bəsáw	'... that she bathe'
	... dè zaraw	'... that he/she call'
IMPERFECTIVE:	tè s-áa ghàr-uws-áy	'he will grow old'
	njè s-áa ghàra-zay	'she will grow old'
	tlèn s-áa ghàra-tlèn-ày	'they will grow old'
	tè s-áa zàrá-y	'he will call'
	njè s-áa zàrá-y	'she will call'
	tlèn s-áa zàrá-y	'they will call'

The same pattern emerges in negative TAM's except for Negative Hortative, where the transitive forms were volunteered with overt subjects, as in the Imperfective.

NEG. PERFECTIVE:	à boo-ta má-w	'he did not go out'
	à zar má-w	'he/she/they did not call'
NEG. HORTATIVE:	tá bàw-uws-úw	'he should not go out'
	tíy ta zàrá-w	'he should not call'
	njó ta zàrá-w	'she should not call'
	tlón ta zàrá-w	'they should not call'
NEG. IMPERFECTIVE:	té má bàw-uws-úw	'he will not go out'
	té má zàrá-w	'he will not call'
	njó má zàrá-w	'she will not call'
	tlón má zàrá-w	'they will not call'

⁸We are here concerned only with clauses where the subject is not focused. Any focused constituent must have some sort of overt expression, whether nominal or pronominal (see Chapter 12).

A preverbal pronoun was sometimes volunteered in non-Imperfective sentences, e.g. *tlán à zar má-w* 'they didn't call'. I suspect that pronouns in such cases are grammatical topics rather than subjects. Note in this example that the Perfective marker *à* is present. This marker does not appear with 1st or 2nd person pronominal subjects or with nominal subjects, suggesting that there is a major syntactic boundary between the marker and the preceding pronoun. On the other hand, my notes show that Imperfectives were rarely, if ever, volunteered *without* overt pronominal subjects. In texts, cases of \emptyset subject expression in the Imperfective for referential subjects (as opposed to indefinite subjects—§1.2.4) are also rare. Nearly all cases are clauses with the same subject as the immediately preceding clause, e.g.

dò kiya gaangan, tlán d-àa tókənáw \emptyset d-àa d'əngá aanduw, ...
 Sjn beat drum they AUX-Ipf drum (they) AUX-Ipf say quote
 'they beat a drum, they are drumming (and) [they] are saying ...'

There is a likely historical reason for why overt pronominal 3rd person subjects are preferred in Imperfectives but not other TAM's. As in many other Chadic languages, the Imperfective was probably a non-verbal locative sentence in origin, and meant something like "X is at traveling". Evidence for this historical origin is the fact that the Imperfective is the only TAM which can use deverbal nouns as the verb form (cf. 5:§2.2.3.2). Moreover, the Totality morphemes and negation encompass the auxiliary, verb, and its predicate complements rather than just the predicate complements (5:§1). This placement of Totality and negation is like that for non-verbal sentences. Non-verbal sentences require overt expression of the subject, whether nominal or pronominal (§4). In short, the quasi-categorical use of pronominal subjects with Imperfective is probably a historical remnant of the non-verbal origin of this TAM.

1.2.3. A discourse study of subject expressions. Most of the discussion on subject ordering and subject expression in §§1.2.1-2 is based on observations from elicited data. As a check on the validity of these generalizations for Miya, I did a study of subject expression in natural texts. I looked at three procedural texts (the conduct of an important Miya festival, a description of beer making, and customs in courting and marriage), a historical text on the founding of Miya town, and a folktale. I counted only verbal clauses. The first table below summarizes total clause count. I separate clauses with first and second person subjects from clauses with third person subjects since the former always have overt, preverbal pronoun subjects and are thus not of interest for issues of order variation or type of expression. The second table summarizes the results for the 345 clauses with third person subjects.

	Total clauses	1st/2nd person subjects	3rd person subjects
3 procedural texts:	133	2	131
one historical text:	75	12	63
one folktale:	<u>223</u>	<u>72</u>	<u>151</u>
TOTAL	431	86	345

Counts of 3rd person subjects by subject expression and clause type

CLAUSE TYPE		\emptyset	Pro-S V	Pro topic	N-S V	N topic	V...N-S
F/Q	Foc. or Q (any TAM)		1		4		
I N D	Perf. (aff. & neg.)	4			7	1	1
	Imperf. (aff. & neg.)	6	16	1	7	5	
E P.	Fut. 2	7					
	Sjn. 2 (aff. & neg.)	1			1		
	dà Consec.	111		3	40	2	4
D P.	Comps.	2			2		
	Purpose	1					
RC	RC	29					
A D V.	td 'if'			1			1
	kwáa 'when'	14				5	18
	jée 'when'	17		2		1	6
	dàgáy 'when'	19					9
	kàafín 'before'						1
	TOTAL	211	17	7 ⁹	61	14 ⁹	40

The shaded areas represent configurations which I have claimed to be excluded, viz. *postverbal* subjects in clauses with questioned or focused constituents (Q/F—§1.2.1.3) and *preverbal* nominal subjects in relative clauses (RC—§1.2.1.2.1) and most types of adverbial subordinate clauses (ADV.—§1.2.1.2.2). The lack of any such configurations in the sample from natural texts supports those claims. Counts from texts also jibe with claims about relative frequency of preverbal vs. postverbal nominal subjects in independent main clauses (INDEP.—§1.2.1.1.1) and Subjunctive consecutive clauses (dà Consec.—§1/2/1/1/2), viz. nominal subjects are most commonly preverbal in such clauses, but postverbal subjects are also grammatically possible. There were not enough examples of verbal complements (Comps.—§1.2.1.1.3) or Purpose clauses (§1.2.1.1.4) in the sample examined to say anything about relative frequency of order in natural discourse.

The counts also confirm observations in §1.2.2 that pronominal expression of subjects is preferred for Imperfective but \emptyset expression is preferred elsewhere. The \emptyset configuration was by far the most frequent type (61% = 211/345 of the total clause count). With the exception of one focused subject, the only pronouns used as grammatical subjects were in

⁹Among the examples with topicalized semantic subjects, the 7 with pronouns and 9 of those with nouns have \emptyset grammatical subjects. These are not included among the 211 examples listed with \emptyset grammatical subjects. The 5 topicalized noun examples in the "Imperf." row have overt pronominal subjects, which are included in the count of Pro-S V "Imperf." examples.

Imperfective clauses. Moreover, of the six Ø subjects in Imperfective clauses, two were impersonal (see §1.2.4), two were in clauses immediately following a clause with an overt subject, as in the last example of §1.2.2, and two were in relative clauses where the semantic subject had immediately preceded the clause, e.g. *sámáy n-àMángilá ee Ø ná d-àa páw* 'the trash of Mangila where [he] was dumping it'.

In addition to Ø subjects, preverbal pronominal and nominal subjects, and postverbal nominal subjects, the table lists counts for clauses where a topicalized pronoun or noun was the *semantic* subject of the sentence but the *grammatical* subject was a pronoun or Ø. The expression of grammatical subjects in these sentences parallels that of sentences without topics, i.e. grammatical subjects were Ø except for Imperfectives (see fn. 9). I suspect that many of the sentences counted as having preverbal nominal subjects may actually have topicalized semantic subjects but Ø grammatical subjects. This remark applies particularly to the 40 *dè* consecutive clauses listed as having pronominal subjects. In the three procedural texts and the historical text, all written in Miya with written Hausa translation, Vaziya invariably provided translations such as the following for clauses of the type in question:

sèba gaangan dè kèrma gaangan = Hausa *makad'a sai su d'ebi kid'e-kide*
'then the drummers (*sèba gaangan*) begin drumming'

Note that in the Hausa translation, *makad'a* 'drummers' (which translates Miya *sèba gaangan* 'possessors-of drum') precedes *sai* 'then', a common conjunction introducing Hausa consecutive clauses. In Hausa, this conjunction would have to be clause initial, i.e. anything preceding it would have to be a topic. Miya has no word which directly parallels Hausa *sai* used in this way, and hence there is no overt evidence in the Miya sentence that *sèba gaangan* is a topic. However, I see no reason why Vaziya, who spoke Hausa fluently, would use this translation if he did not sense the Miya noun phrase to be a topic. (See 12:§5 for further discussion of topics.) If this hypothesis is correct, it accounts in part for why there *appears* to be such a preponderance of preverbal nominal subjects in narrative as opposed to postverbal, viz. some (many?, most?, all?!) of the apparent preverbal nominal subjects are actually grammatical topics.

1.2.4. Impersonal subjects (= French *on*, Hausa *an*, etc.). To express impersonal subjects corresponding to French *on*, Hausa *an*, etc., Miya uses a sentence with no overt subject. Such sentences are thus identical to sentences with referential Ø subjects (§1.2.2). No function other than subject has an impersonal form, i.e. there are no impersonal object pronouns, etc. However, most intransitive verbs require an ICP reflecting person, number, and gender features of the subject (5:§4.1). The ICP for impersonal subjects is the third plural *-tlèn*. I elicited the following examples using the Hausa sentences in parentheses following the glosses. Compare, in particular, the Imperfective example, with no overt subject, with the Imperfective examples in §1.2.2, where referential non-nominal subjects have overt expression as pronouns.

PERFECTIVE:	à bə-tlén suw	'one has come' (H: <i>an zo</i>)
NEG. PERFECTIVE:	à bə-tlén ma-w	'one has not come' (H: <i>ba'a zo ba</i>)
SUBJUNCTIVE:	mèn áa lùw dè buwá-tlèn	'I want one to come' (H: <i>ina so a zo</i>)
IMPERFECTIVE:	s-áa buwa-tlèn	'one will come' (H: <i>za a zo</i>)

For the HORTATIVE Vaziya volunteered *tèwiy-ká*, and for the NEG. IMPERFECTIVE, *wíy má b-uws-uw*. The former is actually the plural imperative '(you [pl]) come!'. There may be a pragmatic problem in translating Hausa *à zo!*, which would normally be used where a referential subject is known but where direct reference is avoided for some reason. If this referent is 2nd person, there would be a morphological clash between the 3rd person ICP, *-tlèn*, and the 2nd person referent, a clash which does not occur in Hausa, where *à* is specifically impersonal and hence is not directly associated with any person. The NEG. IMPERFECTIVE literally means 'someone will not come'. The problem here seems to be that negative *má* can never be clause initial. Some subject must thus be supplied. In negative clauses, it is the referentiality of *wíy* 'someone' which is negated (9:§1.2), i.e. the clause means 'no one will come', which is logically the same thing as 'one will not come'.

Since there is no formal difference between sentences with impersonal subjects and those with referential subjects having Ø expression, there are contexts whose readings are ambiguous (or vague) between impersonal and referential readings, as in the following passage from a text:

- | | |
|--------------------------------------|---|
| 1. Wàataw, níywiý sèbè jíyeyí, | 'That is, certain people there are, (and) |
| 2. á zàra-tlén aanduw "malvoo". | [one] calls them "malvoo". |
| 3. Kwáa d'ènga duw mùkwá naa | When [one] says that (it is) the day that |
| 4. d-àa sáa ká, d'óo naka camázè ka, | [one] will drink, during that night, |
| 5. á sèná-tlèn | [they] will spend the night |
| 6. d-àa-t(aa) áazábúw | [they] will be dancing |
| 7. d-àa sáa tál | [they] will be drinking beer |
| 8. d-àa zab(a) aazábúw. | [they] will be dancing dances.' |

In this passage, none of the clauses (2-8) has an overt subject. The subject translations in brackets correspond to Vaziya's Hausa translation as *an* (impersonal) or *sun* (referential). The referential reading presumably refers to *níywiý sèbè* 'some people'. The impersonal translation is pragmatically the only one that works in clause (2), but either an impersonal or referential translation would seem possible for the remainder. The context from which this segment comes makes it fairly clear that people other than *níywiý sèbè* alone are participating.

1.2.5. Empty or "expletive" subjects (English *it*, Hausa *ya*, etc.). Some languages have classes of clauses where the subject has no semantic content but has the purely grammatical function of filling the subject position of the clause. In English there are two broad classes of such clauses, in both cases the subject position being filled with *it*: (i) clauses whose semantic subject is a proposition and (ii) weather and time expressions. In Hausa, the first class uses the 3rd masculine singular pronoun; in the second class, with the exception of a limited number of cases which use the impersonal *an/alana*, etc., the expression will be worded in some way with a nominal subject. In Miya, as far as I have been able to determine without having systematically investigated the issue, there are no native constructions with empty subjects of this type.¹⁰ Compare equivalent expressions in the three languages.

¹⁰Tim Stowell, in personal communication, has pointed out to me that null subject languages, i.e. languages which do not have a grammatical requirement that sentences have overt subjects, generally do not

	English	Hausa	Miya
Propositional subjects	it's possible that they will bring money	yāa yīwu sù kaawoo kudii	kwáɗɗaa tɛ̀n ée buwee mīr possible they IpF bring money
	it is hard to catch a rabbit	yanāa dà wūyaa à kaamà zoomoo	kwíyakà daangu j-áa wuyà catching rabbit be with difficulty
Weather and time	it is raining	anāa ruwaa	ghə̀nsə j-áa-táa dàwaw God Prt-IPF fall
	it is dawn	gàrii yaa waayèe	yùw tsáa s-ay dawn give? Tot
	it is night	daree yaa yi	à dən s-áa cámaza Pf do Tot-PS night

The expression for 'be possible' is an invariable complementizing expression. "Tough movement" expressions, as exemplified by 'it is hard to catch a rabbit' permit only a wording with a nominal in subject positions (the "tough-moved" variant, *dáangu j-áa wuyà kwíyakà* 'a rabbit is hard to catch' is also possible). Weather and time expressions require that subject position be filled by a general "environment noun" (*ghə̀nsə* 'God, sky'—cf. Hausa *gàrii*) or by a noun referring to the time or phenomenon itself (the word order variants in 'it is dawn' and 'it is night' are regular variants of Miya, not features special to environment expressions—cf. §1.2.1.1.1).

One frequently used expression borrowed from Hausa, *à kamáatà* 'it is fitting', has the structure of a clause with an impersonal subject (§1.2.4):

à kamáatà dɔ́ búway mir aa Kàsham 'Kasham should bring money'
Pf be fitting Sjn bring money PS Kasham

Finally, there is a time expression whose structure I do not fully understand. I have found this only in *kwáa* conditional clauses. It appears to be a non-verbal clause which either has an expletive subject of Ø expression or a postposed subject and no predicate complement. Neither analysis is satisfactory. See 5:§2.2.3.3 for discussion of the *g-AUX* and 14:§2.1.1 (esp. last subsection) for further illustrations and discussion of this particular clause type.

kwáa g-áa cámaza ka, ... 'when night comes, ...; when it is night, ...'
when AUX-IPF night when

1.3. Direct and indirect (dative or benefactive) objects

1.3.1. Nominal objects. Nominal direct and nominal indirect objects are not distinguished by any overt marking associated with the object itself, such as a preposition. However, when an indirect object (noun or pronoun) is present, the verb has an Indirect

use expletive pronoun subjects in sentences such as those illustrated here. Miya is a null subject language as far as verbal sentences go (§1.2.2). Hausa, on the other hand, always requires that a sentence have a nominal subject and/or an overt clitic which marks person, number, and gender features of the subject.

Object Stem (4:§1.1.2), characterized by a final *-a*. Compare the following cases, where the difference between direct and indirect object shows up only on the verb.¹¹

DO: tɛ̀n jíy dzáraray tliwiy ká 'it's they who will distribute the meat'

IO: dɔ́ bɔ́ta gooráway dɔ́ dzarayá sɔ́bɔ́ sɔ́ba tɛ̀n déeyi ká

'they undo the kolas and distribute [them] to the people who are there'

DO: t-àa báy mir mīsáally Néerá d'ariy 'he will take money, about ₦100'

IO: mán aa baya niy biwun 'I will take [figs] to my family'

When both the direct and indirect object are nominal, the direct object normally comes first. Note that the indirect object stem with final *-a* is required even with the intervening nominal object.¹²

DO only: Kásáy à zar vǎrkə 'Kasay called the boy'

DO + IO: Kásáy à zara 'afuw vǎrkə 'Kasay called the goat for the boy'

DO only: Ndùwya gər kám mǎlvə 'Nduya showed the chief's house'

DO + IO: Ndùwya gəra kám mǎlvə bàakoo dzə̀hə 'Nduya showed the chief's house
Nduya show house chief visitor male to the visitor'

mán tsàa mír Kàsham 'I gave money to Kasham'

Ndùwya kəna tliwiy wèe? 'who did Nduya buy meat for?'
Nduya buy meat whom

mán áa baya zúw ghàrahoo dzə̀hə nuwun 'I will take sorghum to my father'
I IpF take sorghum old person male my

báa wún ka dɔ́ kaf(a) àacán didí-wasə 'the girl's father sends a message to
father girl PRM Sjn send "message" in-laws-his his in-laws'

In verbal TAM's (5:§2.1), almost half the verbs have a lexical form ending in *-a*, and underived verbs in nominal TAM's (5:§2.2) all end in *-a*. In all such cases, there is no overt formal differentiation of nominal direct objects and nominal indirect objects.

DO: shíykèenán Bàakóo dɔ́ bəla múkway

'then Bako will state the day (of the wrestling match)'

¹¹In the first pair of examples, the verb with the direct object is a pluractional (7:§3) whereas the verb with the indirect object is not. This is not relevant to the marking of object type. The verbs in both sets of examples have the transitizing suffix *-ay* (7:§4.1.1). In a few examples in elicitation and in one example from a text, the *-a* marking indirect objects was omitted with the transitizing suffix when a direct object intervened before the indirect object, e.g. *mán biwáy sɔ́pən baa'iy* 'I brought food to the guests', *dɔ́ d'aa dzáray tliwiy ká dangiy* 'one distributes meat to the relatives'.

¹²All examples in texts and nearly all examples in elicitation have the V + DO + IO order. In a few elicited examples, the opposite order was either volunteered or accepted when I volunteered it, e.g. as an alternative to *à gəra vǎrkə naazà Kasáy* 'she showed her son to Kasay', *Vaziya gave à gəra Kasáy vǎrkə naazà* in the same meaning.

IO: kwáa baatlôn ká dè *bəla Mai* 'Unguwá, "Née à kafəma aa baa wún kən ..."
'when they go they say to the Ward Head, "Look, the girl's father has sent us ..."'

DO: mùkwá na d-àa bíy sá tál ka, á *tsáa ngón* múku taka
'on the day that they will drink beer, they will give the name that day'

IO: jée kfiya gwàlfə də *tsaa Gitúwà*
'then they took the chieftainship and gave [it] to *Gituwa*'

1.3.2. Pronominal objects. Pronominal objects are expressed as clitics to verbs. In verbal TAM's (5:§2.1), DO and IO clitics other than first person singular are segmentally identical, but they are usually distinguished tonally and/or by the presence or absence of the indirect object stem *-a* (4:§1.1.2). In nominal TAM's (5:§2.2), where a special indirect object stem is not overt, IO clitics are the same as those for verbal TAM's, but DO's use the genitive clitics (8:§1.3).¹³ The paradigms below illustrate the distinctions between DO and IO clitics using third person masculine singular with verbs in all the major lexical classes (see 4:§§1.1.1, 1.2.3 for verb classes and 5:§§4.2, 4.3 respectively for full DO and IO paradigms). I have separated the *-a* of the indirect object stems with a hyphen but have left final *a* of "a" class verbs intact with the verb.

Verbal TAM: Hortative 'he should ... him/for him'

Verb class	DO	IO	
L, Ø class	tà bəsə-ya	tà bəs-a-yá	'wash'
L, -a class	tà tək-a-ya	tà tək-a-yá	'accompany'
HH, Ø class	tà bələ-yá	tà bəl-a-yá	'chop'
HH, -a class	tà bəta-yá	tà bət-a-yá	'untie'
HL, Ø class ¹⁴	tà mār-yà	tà mār-á-yà	'get'

Nominal TAM: Subjunctive 'that he ... him/for him'

L, Ø class	də bəs-uwsə	də bəs-a-ya	'wash'
L, -a class	də tək-uwsə	də tək-a-yá	'accompany'
HH, Ø class	də bəl-uwsə	də bəl-a-yá	'chop'
HH, -a class	də bət-uwsə	də bət-a-yá	'untie'
HL, Ø class	də mar-úwsə	də mar-á-yà	'get'

When the IO is a pronoun and there is an overt DO, whether noun or pronoun, the IO always takes the form of an IO clitic. If the DO is a pronoun, it is expressed as an Independent Pronoun (8:§1.1) rather than as a clitic:

Pronoun IO, noun DO

món ts-à-yá mìn 'I gave him money'
nj-àa gər-a-tlá vərəkə naaza 'she will show her her son'

¹³Pronominal direct objects of verbs with the transitizing suffix *-ay* take the DO clitics in all TAM's. See 7:§4.1.1.

¹⁴I found no transitive HL *-a* class verbs.

mən bú-wun *bəl-a-fə* wiy 'I will go and cut you (ms) another [stick]'
bəs-a-ma kábə 'wash the gown for us!' (singular imperative)

Pronoun IO, pronoun DO

món ts-à-yá tìy 'I gave it to him' (lit. 'I gave him it')
nj-àa gər-a-tlá tìy 'she will show him to her' (lit. '... to her him')
mən aa ts-a-fə tlən 'I will give them to you (ms)' (lit. '... to you them')
à gər-a-fə fìy mən 'he showed me to you' (lit. '... to you, you, me')

In the last example, the IO is repeated as an Independent Pronoun before the DO pronoun. There seems to be a certain unnaturalness to using an overt DO pronoun when an IO is overt. I have found only one example of this in a text (the last example below), and although Vaziya would produce sentences like those immediately above, it was with some hesitation and (pragmatically motivated?) variation, such as repeating or not repeating the IO as an independent pronoun—compare the last two examples above.

With a nominal IO and pronominal DO, one would expect the DO to be expressed as a clitic. However, in the examples I was able to elicit and the one textual example I found, the DO was expressed with an Independent pronoun, and its position with respect to the IO varied:

à gəra Kasáy tìy 'she showed him to Kasay'
nj-àa gəra Kasáy tìy 'she will show him to Kasay'
mən tsàa tìy Kasham 'I gave it to Kasham'
mən aa tsáa tìy Kasham 'I will give it to Kasham'

dlórkíy maa dè kəna àa maahə ká, á póra njíy 'an ka
chicken which Pf buy PS mother PRM Ft slaughter it wife PRM

'the chicken which the mother has bought, she will slaughter it for the wife'

1.3.3. Pronominal vs. Ø objects. With referential DO's in texts there is a preference for expressing human reference with pronouns and inanimate reference with Ø. Animals, in this respect, seem to pattern with inanimates, but my corpus does not contain enough examples of animal referents in continuing discourse to establish a clear trend. These observations correlate with those made for Hausa by Jaggar (1985) (see §1.3.4 for a small discourse study of Miya objects). Below are typical examples from texts, first of pronouns used in continued reference for a human antecedent, second of Ø in continued reference to inanimates. The antecedent referent is in small caps and the pronouns are italicized.

Human:

To, kwaa dəm(a) lookaciy NAAZA ba awree, 'Well, when HER time for marriage comes,
aad'oo niyka dzafə vaatleeniy ka səba doona-za, among those five men who are seeking *her*
shiykeenən də zara-z(a) aa niy baa-za well her parents (niy baa-za) call *her*
də tambayee-tla nj-aaluw weena aad'oo niyka dzahu. (and) ask *her* whom she likes among those men.'

Inanimate:

Kwaa raβa ZUW_i ka, a sɔnuwsɔ kidi. Kwaa ghɛdzuwsɔ 'When they have wetted the SORGHUM_i, it goes
wulum ka, three days. When it has fermented,
a 'iyka dɔ tsaa Ø_i tɔvam then they give [it]_i to the women
dɔr Ø_i -ay. (and they) grind [it]_i.
Kwaa dɔra Ø_i ka, When they have ground [it]_i
kwaa ts(a) aa yuw ka, suw pɔlaka TAL_j-ay. when the dawn breaks, it's BEER_j mixing (time).
Kwaa tataha TAL_j ka, When they have strained the BEER_j,
kaafin tsɔraka t-aamuku, dɔ z(a) Ø_j aakuw mɛnam-ay. before midday, they put [it]_j on the fire again.'

Preference for pronominal anaphora for humans but Ø for inanimates is functional, not grammatical. The following example is from a text with pronominal anaphora for an inanimate.

Coonakɔn PAY T-AAMANGILA, yawwa, ta Gwarama ta 'Now the POND OF MANGILA, yes, (it is)
sɔbɔ niy aaDaya Gwarama's (and) that of the people of Daya
sabooda Gwarama dɔ βiyaa-za. because Gwarama dug it.'

A restriction against Ø anaphora for human referents is more nearly absolute. I have found no examples in texts of Ø human object anaphora, even in series of linked actions with the same object repeated, where Hausa often uses Ø (Jaggar 1985:98ff.). However, verbs subcategorized for animate (and typically human) objects can be cited without overt objects (*à tiy sáy* 'he killed', *à zar sáy* 'he called'), and Ø reference is normal for human subjects in most verbal clause types (§1.2.2).

It is difficult to say whether Ø anaphora is possible for IO's since there are few, if any, verbs which are subcategorized for obligatory IO's. IO pronouns usually have human referents, but they can have inanimate referents:

Kwaa tataha Ø ka, bahiy can 'azahar 'When one has strained [THE BEER], toward early afternoon
dɔ mɔna za-y(a) aakuw aacɔβɔwas-ay. one again puts to it the fire underneath it.'

1.3.4. A discourse study of object expressions. I did a count of types of object expressions in natural texts parallel to the count of subject expressions discussed in §1.2.3, using the same text sample. The number of clauses is smaller, of course, because many clauses have intransitive verbs.

DO	1, 2 pro	noun	Q word	3rd ps. pro.	3rd ps. Ø	Total
human	8	31 47% of hum.	2 3% of hum.	33 50% of hum.	Ø	66 (3rd pers.)
animal		4 100% of an.	Ø	Ø	Ø	4
inanimate		71 76% of inan.	2 2% of inan.	4 43% of inan.	17 18% of inan.	94

Total 3rd person DO 164

IO

human	10	11 28% of hum.	Ø	28 72% of hum.	Ø	39 (3rd ps.)
inanimate		Ø	Ø	1	Ø	1

Total 3rd person IO 40

These text counts confirm the observations in §1.3.3 about preference for pronominal or Ø anaphora depending on whether a referent is human or non-human.¹⁵ Indeed, for the texts examined, the correlation of human/pronoun vs. non-human/Ø was nearly categorical, the only apparent exceptions being 4 tokens of direct object pronoun and 1 token of indirect object pronoun with inanimate referents. In fact, these examples form a special category because they are all resumptive pronouns in a relative clause referring to the antecedent, and they all have either *zar* (+ DO) 'call' or *d'anga* (+ IO) 'tell, call' as the verb:

nákɔn wár ba na zàr-uws ánduw "wùyak áadɔbɔ"
this festival that AUX call-it Qt jumping arena
'this festival that one calls [it] 'the wrestling festival''

Human referents take pronominal objects even in consecutive clauses where Hausa would allow Ø anaphora for a human:

... duw, "Puw-iy Labe! Mɛn s-aa bu-wun."

Dɔ kiya-za dɔ puwa-za-y ...
Sjn take-her Sjn hide-her-Tot

'... he said, "Hide Labe! I will come."
They took her and hid her.'

The discourse counts also confirm observations in §§1.3.1-2 about relative ordering and co-occurrence preferences for objects:

↓ FIRST	SECOND →	noun DO	Q-word DO	pronoun DO	Ø DO
noun IO		2	Ø	Ø	2
pronoun IO		17	2	Ø	4

The indirect object, whether noun or pronoun, always comes first. A configuration with a pronominal indirect object is common, but the text sample examined had no examples of direct object pronouns co-occurring with indirect objects. The reason for this must be mainly pragmatic—indirect objects, which are either dative or benefactive, are almost invariably human, and direct objects of which the donee or benefactee is the recipient are almost invariably non-human. The first table in this section and §1.3.3 have shown that non-human objects virtually never have pronominal reference. The canonical pattern will thus be HUMAN INDIRECT OBJECT (noun or pronoun) + NON-HUMAN DIRECT

¹⁵The count for human noun direct objects includes two tokens of an elephant in a folktale who plays a human-like role. The count for human pronoun direct objects and that for human noun indirect objects includes one token each of this referent as well.

OBJECT (noun or Ø), i.e. because of the preference for human/pronoun vs. non-human/Ø, a situation where a pronominal direct object would co-occur with an indirect object would rarely arise. We are thus left with a "chicken and egg" situation: does the rather fluid treatment of pronominal direct objects together with indirect objects noted at the end of §1.3.2 arise because this configuration rarely occurs and speakers are not quite sure what to do with it? OR has the grammar of Miya created a way of avoiding a configuration with two pronouns in a row, a configuration which Miya speakers would not even use except when forced to do so by persistent linguists?!

1.4. Locatives

1.4.1. Stationary locatives and goal locatives. Miya makes no syntactic or morphological distinction between stationary locatives and locative goals. Moreover, there are no stationary or goal prepositions. Rather, nouns which can be used as heads of locative phrases have a *locative form* (8:§6.1). For most nouns, this consists of a prefix *a(a)*- (pronounced short at the beginning of an intonational phrase but usually lengthened medially). This prefix probably comes from the Chadic general stationary locative preposition **a*, but in Miya there are several reasons, discussed in 8:§6.1, for analyzing it as part of the noun. The following examples will demonstrate the formal identity of locative goals and stationary locatives as well as illustrate one of the arguments for speaking of "locative forms" rather than "prepositions". Variation in length of the *a(a)*-prefix medially is fairly free; examples are as in my notes. Tonal alternations are conditioned by phonological, not syntactic factors (3:§3).

Citation forms of locative nouns used below:

Miya	'Miya (town)'
áGàaruw	'Bauchi (town)'
ʔykwá?	'where?'
kàm	'compound; hometown'

Stationary locatives

à d'əm aacám Míya
'he did work in Miya'

à d'əm aacám aGàaruw
'he did work in Bauchi'

fà tsəgaku ʔykwá?
'where did you (m) sit?'

gànaa zuwaghəm ákàm
'let me leave you (f) at home'

Locative goals

tə sáa bùwsó Míy(a)-áy
'he will go to Miya' (-áy = Totality 7:§2)

à báy bàkwál Míyà
'he took a bag to Miya'

tə sáa bùws áaGàaruw-áy
'he will go to Bauchi'

à báy bàkwál aGàaruw
'he took a bag to Bauchi'

màc aa bághəm ʔykwá?
'where are you (f) going?'

à batlón s-aakam-ay
'they went home'

à báy dzám aakám
'they took beans home'

(no examples elicited of *kàm*
meaning 'hometown')

à batlón kàm(tlón)
'they went to their hometown'

à báy dzám kám(tlèn)
'they took beans to their hometown'

We can divide locative words into three types: (1) those which have the *a*- prefix in all contexts, including citation form and non-locative sentential functions such as subject or direct object, e.g. *áKandò* 'Kano', *ádúkun(á)* 'place of ...', *átsafə* 'middle, center'; (2) those which never have a prefix, e.g. *Miya* 'Miya town', *h(á)* 'place of ...', *ʔyka* 'there', *dáha* 'inside'; (3) nouns which take no *a*- in citation form or in non-locative uses but take *a*- when used locatively, e.g. *(á)káasuw* 'market', *(á)dáangə* 'water pot', *(á)ləm* 'hut'. Types (1) and (2) comprise canonical locative words, i.e. those which inherently specify a location rather than a concrete object and which are typically the head of a locative phrase. Type (1) is the largest class. Type (3) comprises nouns which are concrete objects but which can also serve as heads of locative phrases. A contrast illustrated above is the use of *kàm* meaning 'hometown' vs. *kám* meaning 'compound, home'. The former takes no prefix in locative phrases (cf. names of towns, which are all of type (1) or (2)) whereas the latter adds a prefix when used as head of a locative phrase.

A possible analysis of locative phrases would be to have a locative preposition *a(a)*- which is omitted in locative phrases where the head is a noun from group (1) or (2). I prefer, however, a lexical/morphological approach. Locative phrases have no overt syntactic marker, such as a preposition. Rather there is an inflectional process which adds a prefix *a*- to nouns when they appear as the head of a locative phrase unless they are marked not to take this prefix. Under this analysis, only those nouns of group (2) would have to be marked. Nouns of group (1) already have a prefix, so the inflectional rule either applies vacuously or does not apply. An additional advantage of the morphological analysis is that nouns with the locative prefix can occur in contexts other than adjunct locative phrases to verbs. In particular they can appear as the second noun of genitive phrases, e.g. *dúwkīy t-aakán-ná* 'the wealth of your (pl) household' (10:§3.3.2). In such phrases, the noun is one member of a noun phrase but is understood as a location rather than a concrete noun. A morphological approach which adds locative inflection to nouns accounts for this naturally. A syntactic approach which claims that *a(a)* + Noun is a prepositional phrase would have to introduce an NP structure [Noun + Linker + Prepositional Phrase], a structure not otherwise attested.

Following are a few more examples of locative phrases (see §4.5 for examples of locative phrases which themselves are predicates). These sentences exemplify locative phrases of a number of types and locative phrases in a number of syntactic environments.

Nouns in locative form with no "preposition" (8:§6.1)

Ndùwya var súw dè b-uws áa-vùwágwàhiy-áy 'Nduya ran to the town'
Nduya run TOT Sjn go-ICP Loc-town-Tot

Ndùwya vár àamiráy a-vùwágwàhi 'Nduya ran in the town'
Nduya run running Loc-town

mèn aa b-uwn áa-káasùw 'I'm going to market'
I Ipf go-ICP Loc-market

Locative phrases with "prepositions" (8:§6.2.2)

tò aa 'iyká mìy bay áataa dáy 'thence we take it onto a rock outcropping'
well from there we take onto rock

món tsər-wàn vóna kám 'I stopped in front of the house'
I stop-ICP front house

Overt objects followed by locative phrase

nj-aa dəm(a) áacám aa-káasùw 'she is working in the market'
she-Ipf do work Loc-market

də təkəná-yà gaangam atáa yàn-wasə 'one beats a drum for him on his grave'
Sjn beat-for him drum on grave-his

də dúwrà tál-ay d'oo ndùwulálàw 'they pour the beer into pots'
Sjn pour beer-Tot in pots

mìy aa vaa zúw d'oo bìy á sən-ùwsə d'áhə 'we pour sorghum into water (and) it spends the night in (it)'
we Ipf pour sorghum into water Ft spend night-ICP inside

"Non-locative" nouns in locative phrases (8:§6.2.4)

Kásham bà-ta(a) áa-dukuná Jaalà 'Kasham went to Jala'
Kasham go-ICP Loc-place Jala

Kásham bə-t(a) aa-dúkunú-wun 'Kasham came to me'
Kasham come-ICP Loc-place-my

Multiple locative phrases

tò dāamāa tlən tlən aa baa-tlən d-aa kúw(a) àabíy naatlən saara à-kwatla
well usually they they Ipf go-ICP Ipf draw water their distant Loc-downward
'well they would go and draw their water at a distance in the lowland'

də tlaa-za də baa-z(a) aa-tsakəm-ay aa-tər maa-za t-aa-tsakəm
Sjn arise-ICP Sjn go-ICP Loc-bush-Tot Loc-place of mother-her of-Loc-bush
'she arose and went to the bush to her "bush mother"'

1.4.2. Source or temporal inception: preposition áa` 'from'. Both locative source and temporal inception, usually translatable as 'from', are expressed with the preposition *áa`*. I illustrate the two phrase types here because they share a preposition, though syntactically the source phrase would be internal to the verb phrase while the temporal phrase would be external to it. The preposition appears before the head word, whether that word has the prefix *a(a)-* or not. Since contiguous vowels in Miya contract, the preposition *áa`* usually enters into contraction with preceding and/or following vowels. This makes it difficult to establish its tonal properties with certainty. I tentatively provide the preposition itself with /H/ (which is realized as L in phrase initial position—3:§3.1) and with a final floating L, which replaces the tone of the following tonal domain. The first three examples below show that *áa`* is a real preposition, different from the locative prefix *a(a)-* discussed in §1.4.1. In these examples, the following word begins in a consonant, so there is no possibility of confusing the preposition with a prefix. In the fourth example, from a recorded text, the speaker pronounced both the preposition and the prefix. In the

last three examples, the preposition was contracted in speech with the preceding and/or following vowel(s). Tones in these examples are not completely consistent with the proposed tonal configuration, perhaps because of the contractions.

Locative source

àa 'iyká dè bay-yá à-pópam-ay 'thereupon one takes him to the cave'
from there Sjn take-him Loc-cave-Tot

Kásham tlà-t(a) áa Mìya báhiy(a) áa-Ningi 'Kasham set out from Miya to Ningi'
Kasham arise-ICP from Miya going Loc-Ningi

Q: mà boo-kəm áa 'iykwá? 'where did you (f) come from?'
you (f) come out-ICP from where

A: món bòo-wan áa àa-Gituwa 'I came from Gituwa'
I come out-ICP from Loc-Gituwa

món bù-wán àa (a)dúkuná Jaalà 'I have come from Jala('s place)'
I come-ICP from place of Jala

də pəta-z(a) áa (a)ghám-ùwsə 'he took her down from his head'
Sjn lower-her from head-his

kwáa naa ka, dè kamá-y(a) àakuw-áy àa cəbə-wasə
when cook when Sjn pull-to it fire-Tot from base-its

'when it is done cooking, one pulls the fire from underneath it'

Temporal inception

təvam də dǐng(a) àazábə àa tsuway hár bahíy 'azàhər
women Sjn keep on dancing from morning until going to midday

'the women keep dancing from morning all the way to midday'

Washashan-fə mənà jìy kən àa buwáhiyà-fə 'iykən-a?
years-your how many FIp here from coming-your here-Q

'how many years has it been since your arrival here?'

1.5. Instruments: preposition àa`. Instrumental phrases use a preposition *àa`*. This resembles the source locative preposition (§1.4.2), but the source locative seems to bear underlying H whereas the instrument seems to bear underlying L. They both have a final floating L (3:§4). With the instrumental preposition, I collected examples of nouns bearing different tones in order to demonstrate the effect of the final floating L. Compare the tones of the nouns below following the demonstrative *nákən/ltákən* with their tones following *àa`*. Pronominal objects of the instrumental preposition are the independent pronouns (8:§1.1).

àa gaday [_ _] 'with a sword'

cf. *tákən gaday* [- - -]

àa giti [_ _] 'with an ax'

cf. *nákən gíti* [- - -]

àa kwambal [_ _] 'with a stick'

cf. *nákən kwàmbal* [- - _]

àa libír [_ _] 'with a needle'

cf. *nákən libír* [- - -]

àa njə [_] 'with it (f)'

cf. *njə* [-] 'her, it (f)'

à dəm aacám àa giti
Pf do work with ax

'he did work with an ax'

món kùwa zuw-áa àa magirbi I-Pf harvest sorghum-pln with hoe	'I harvested sorghum with a hoe'
món kùwa zúw àa njə	'I harvested sorghum with it'
à dəm aatəm àa bəzakwáy Pf do singing with harp	'he sang with a harp'
ndùwul báa dè dīya sɔpən aa t̩y pot that Pf cook tuwo with it	'the pot that she cooked tuwo with (it)'
mən aa-táa dīy-ùws áa ¹⁶ Nairà vaatlə I Ipf follow-him with Naira five	'he owes me N5.00' '(I am following him with N5.00)'
dè dəŋga-tl(a) áa yàarée àa vəna m̩y Sjn speak-to her with language with mouth Miya	'they spoke to her in the Miya language'
kwáa biy bay-tlà háa-tlən ká, dè dəma 'am-á àa njə when Prt take-her place-their when Sjn do wife-pln with her	'when they take her home, they make a wife out of her'

1.6. Comitatives: prepositions 'ənáa' or 'əfáa'

1.6.1. Simple comitatives. Comitative phrases use the prepositions 'ənáa' or 'əfáa', which are completely interchangeable. They both have a final floating L, which replaces the tone of the following domain (3:§4). These same prepositions conjoin noun phrases.¹⁷ See 10:§6 for discussion of this function as well as examples of the effect of the floating L and a note on the historical origin of the two forms. Phrases with 'ənáa' or 'əfáa' can be used as simple adjunct phrases meaning 'in the company of, with'. Pronominal objects use the independent pronouns (8:§1.1).

á 'ar(a) ée-wutáy 'ənáa n̩y àzək-úwsə Ft prepare at-one with &Co uncle-his	'he will prepare (beer) with his uncles'
à dəm aacám 'ənáa m̩y Pf do work with us	'he did work with us'
jée dəŋga-y(a) àa yaarée 'əfáa t̩y then speak-to him with language with him	'they spoke in (their native) language with him'

¹⁶The H on the preposition may be explained by LOW RAISING, which raises the first syllable of a L domain after L if the L domain does not begin in a voiced obstruent—3:§3.4.

¹⁷Note that Miya uses different markers for the conjoining function ('and' and comitative 'with') and instrumental 'with'. In a text from one speaker (a young man), I did find some examples of what appears to be instrumental *aa* used in conjoining and comitative functions, e.g. *àa Mamman aa Labe dè var-áy àavuwágwahy* 'both (*àa*) Mamman and (*àa*) Labe ran off to the town', *t-áa dəma awree aa Làbée* 'he will marry Labe' (he will do marriage with (*aa*) Labe). This same speaker used 'ənáa' in this function as well (examples in §§1.6.1-2 which include the name *Mámmàn* are from the same text). No speakers ever used 'ənáa' or 'əfáa' in the instrumental function.

jée tl-uwsə 'əfáa 'ən tuwsə 'əfáa wùtləm̩f̩y niywasə ¹⁸ gan t̩y then arise-ICP with wife his and children his even him	'then he sets out with his wife and children and himself included'
njə d-aa-taa (a)təvi də gəma 'ənaa Mamman she də-Ct traveling Sjn meet with Mamman	'she was traveling along and she met up with Mamman'
gànaa zuw-rym á-kàn 'ənáa wùn t̩rym Hrt-me leave-you (fs) Loc-home with daughter your (fs)	'let me leave you (fs) at home with your daughter'

1.6.2. Asymmetric coordination. When two referents are engaged in a single activity, Miya is like many other Chadic languages in preferring a construction referred to in Schwartz (1989) as "asymmetric coordination". In this construction type, a plural pronoun appears in the appropriate functional position (usually subject, direct object, or indirect object), then the name of one of the referents or a singular pronoun referring to one of the referents appears in a comitative phrase. This structure takes the following interpretation, where X and Y are single individuals, not groups:

$$\dots \text{Pronoun}_{[\text{plural} = X + Y]} \dots 'ənáa Y = \dots X \text{ and } Y \dots$$

Pronouns for the plural and comitative phrases are chosen as follows:

- The plural pronoun will be first person if the speaker is included, it will be second person if the addressee but not the speaker is included, and it will be third person otherwise.
- If either one of the referents is third person, the comitative phrase will have a third person singular pronoun.
- If one of the referents is first person and the other one second, the second person is in the comitative phrase.
- If both are second person or both are third person, the pragmatically "subordinate" referent will be in the comitative phrase. For example, in Miya courting, it is the man who initiates the pursuit of a spouse rather than the woman. In asymmetric coordination involving a courter and a courtee, it is therefore the woman who will be in the comitative phrase.

Asymmetric coordinate constructions are not obligatory even when the pragmatic conditions are met for their use, i.e. a simple conjoined noun phrase may appear in functional position in question (10:§6) or the first pronoun may be singular (see examples immediately above in §1.6.1). However, examples from texts show a preference for asymmetric coordination when one of the referents is expressed pronominally. Although sentences like the following are potentially ambiguous between two referents or more than two, the first interpretation (with no context provided) is invariably that of two referents.

¹⁸Since 'əfáa' is both the comitative preposition and the conjoiner of nouns, this phrase is structurally ambiguous between two comitatives and conjoined noun phrases within a comitative phrase.

In the boxed examples, context is provided preceding the clauses with asymmetric coordination to show that only two referents are involved.

MĪY bà-má 'ənáa fīy 'you (ms) and I went'
 we go-ICP with you (ms) (WE went with you (ms))
 dè d'əhónà-TLÓN àwree 'əfáa wàaciya 'he and so-and-so have been married'
 Sjn tie-to them marriage with so-and-so (f) (one has tied to THEM marriage w. so-and-so)

"Ám tuwun géeyí. Kwáa g-áa ts(a) aa yùw ká, MĪY buwáa-mà 'əfáa njè." we go-ICP with her ... dè baa-TLÓN 'əfáa 'àn tuwsə Sjn go-ICP ('them') with wife his	"My wife is there. When the dawn is about to break, she and I will come." (WE will come with her) ... he and his wife went.' (THEY went with his wife)
---	--

dè jīy mara máa-zà yáwun dùw, "MĪY gəm súw 'ənáa Màmán" we meet Tot with Mamman	'she found her mother the elephant and said, "Mamman and I met" (WE met with Mamman)
--	---

Q: Ḿaa marà-f-a? what get-you (ms)-Q A: Née hám bá maraa-MÀ ká 'əfáa fīy. here is thing that got-us PRM with him	'What happened to you (ms)? Here's what happened to us.' (here's what got US with him)
--	--

1.7. Subjective complements (predicate nominals). I use the traditional term *subjective complement* to refer to noun phrase complements to intransitive verbs which predicate a property of the subject. These differ from the predicates of equational sentences (§4.1) only in that the sentences include a verb. The complement noun phrase has no overt mark, such as a preposition. It thus resembles an object, but the verb can be identified as intransitive in that it bears an Intransitive Copy Pronoun (5:§4.1):

sábòoda dè ghədzà-tlón wùtlə bazam 'so that they become (mature) young men'
 in order that Sjn become-ICP children young men

à ghədzà-ta súw wùlum-áy 'it (moistened sorghum) has fermented'
 Pf become-ICP Tot fermented grain-Tot

1.8. Objective complements ("small clauses"): preposition *àa*. I use the traditional term *objective complement* to refer to a noun phrase which is predicated as a property to the object of a transitive verb (the object plus its complement is referred to as a "small clause" in some theoretical syntactic literature). Objective complements are marked with the preposition *àa*, which is identical to the instrumental preposition (§1.5).¹⁹ I include what may be two distinct structures here, though they share the semantic property

¹⁹As a possible connection between the instrumental and objective complement functions, compare the third example below with the example ... *dè d'əma 'am-á àa njə* '... they make a wife out of her' seen in §1.5. In this case, the phrase *àa njə* 'with her, of her' is an instrumental phrase whose scope is the entire Verb + Object phrase. In the case of objective complements, the complement is predicated only of the object noun.

of predicating a property of an object and marking that relation with the preposition *àa*. The first structure type is comparative and equative sentences, where a standard of comparison is predicated of the object (see §3 for further discussion of comparative and equative sentences). The second type equates an object with a property, as in *they elected Bill president* or *I chose Mary as my partner*. In the word-for-word glosses below, I translate the preposition *àa* "for".

mèn jīy baa dè ra-tlón àa washasham 'it was I who was the oldest of them'
 I FIp who Pf exceed-them "for" year

mà d'amá-tlà d'ám(a) aa mban²⁰ 'you (fs) are as beautiful as her'
 you (fs) Pf equal-her equaling "for" beauty

à dawun Kasáy àa 'am 'he sought Kasay as a wife'
 Pf seek Kasay "for" wife

sámay n-àaGítuwà dè raa n-aaMángilà aa casə
 sweepings of-Gituwa Sjn exceed of-Mangila "for" abundance

'the (pile of) sweepings of Gituwa was bigger than that of Mangila'

Most examples that I found in texts and elicitation followed the pattern illustrated above. Under conditions that I could not predict, other constructions were occasionally used. In the first example below (from elicitation), the objective complement is embedded in a subordinate clause. In the second (from a text), the objective complement is unmarked. This was the only such example I encountered. It might be a calque on Hausa, where objective complements have no overt mark (all the words in the sentence other than the pronouns and auxiliaries are Hausa borrowings).

à zaaba Róoya t́ dè malv́ 'they chose Roya as chief'
 Pf choose Roya he AUX chief (they chose Roya, he was chief)

mán dè may samaaríy dè nađú-wùn Círómà
 I dè leader young men Sjn install-me Ciroma

'I was *mai samari* and they installed me as Chief'

1.9. Quantifier complements. In this section I briefly discuss what are really two syntactic entities. They share the presence of a quantifier complement to a verb, and as the remarks at the end of this section show, they are semantically related in a way that shows up in syntax. The first has its counterpart in English expressions like *the war lasted five years*, where the verb is subcategorized as taking an "amount" complement. In such expressions, the verb requires a complement which is a quantified noun of the appropriate type (typically a unit of time). In Miya one verb which works in this way is *bay*, which in other contexts means 'transport, take (from one place to another)'. See the end of this section for a related case.

²⁰This sentence has a cognate complement (7:§5) in addition to the objective complement. This plays no role in the objective complement structure.

wíya mà hár nj-àa báy wáshasham vaatlo
 some (f) Top even she-Ipf take year five

'a certain one (girl being courted) will even take five years (before she decides which suitor she likes)'

níywiy, àa-kán-tlèn, à báy bày áa sàbà dǎbi tsər-ay²¹
 some Loc-house-their Ft reach reaching PS people twenty-Tot

'some (people), in their house, the residents will reach (as many as) twenty'

The second type of quantifier complement involves verbs which semantically incorporate some sort of unit which itself can be quantified. In practice in Miya, this may only involve the verbs *sáná* 'spend a night, spend a 24 hour period' and *wàsəna* 'spend a year'. With these verbs, the complement to the verb is a quantifier alone, which quantifies over the time unit incorporated into the verb.

à són-ùwsə kídl 'he spent three days'
 Pf spend day-ICP three

dàgée sənà-tlèn tsər dǎ súw bàhiy ée rínj(a) àabfy-ay
 when spend day-ICP two dǎ Tot going place of fishing (in) water-Tot

'when two days had passed (when one had passed two days) they went off fishing'

kwáa biy wasən-ùwsə wutá àa lay ká, dǎ fáar(a) àmbágod-ay ...
 when Prt spend year-ICP one PS child when Sjn begin crawling-Tot

'when a child has lived one year, he starts crawling ...'

A "deincorporated" version is possible, at least for 'year'. In this case, the verb *dəm* 'do' takes the quantified time expression as an object. This construction is thus like the constructions discussed at the beginning of this section.

tò, àbáaya mīyiw nuwsə dǎ dǎma wásən wutá atáa dǎona gwalfə, ...
 well, after death his Sjn dǎ year one on seeking chieftainship

'well, after his death, they spent a year seeking (to fill) the chieftainship, ...'

For further discussion of predicated quantifiers, see §4.2 below on quantifiers as predicates in equational sentences, where quantification is over the subject, and 7:§5.2 and the end of §1.10 immediately below for interpretation of the universal quantifier *ndyâam* 'all' as an adverbial quantifier.

1.10. Manner adverbs (including ideophones). Most manner adverbial concepts in Miya are expressed using ideophones (noted by parenthesized *id.* in examples here). The pro-manner adverb is *wánka* or *wánkən* 'thus, like this', which is the preposition *wán* 'like' plus one of the determiners *ká* or *kən* (9:§2). The manner expression seems to

²¹The syntax of this example is quite convoluted. There are two topics, *níywiy* and *àa-kán-tlèn*. The subject, *sàbà*, is in postverbal position (§1.2.1.1). The verb has a cognate complement (7:§5), translated 'reaching'. At first glance, it looks as if *dǎbi tsər* 'twenty' is a direct modifier of *sàbà* 'people', but this cannot be the case. If *sàbà dǎbi tsər* '20 people' were the subject, the sentence would have an ungrammatical structure meaning *'in their house, 20 people reach'. And it cannot be the case that *sàbà dǎbi tsər* is the complement of *báy* ('X reaches 20 people') since the *àa* marks what follows as subject, and in any case there is no other clear candidate for subject.

follow other predicate constituents, including the Totality marker *-áy* (see third example below).

à dǎm aacám piy 'he did the work quickly'
 Pf do work quickly (id)

átakusən s-áa bùwa-zà bákù-bákù 'the hedgehog came hopping along'
 hedgehog Tot-Ipf come-ICP hopping (id)

dǎ gudza shóoshoo dǎ tiy-úws-ay katl 'he aimed at the rooster and hit him hard'
 Sjn aim rooster Sjn hit-him-Tot bang (id)

tlən d-àa-táa màka naatlən wanka 'they were living thus'
 they AUX-Ct living their thus

dàga tl-uwsá, pǎtlà kabə wánkən 'when he got up, he shook his gown thus'
 when arise-ICP shake gown thus

təvam kwáa nayá wánka ká, s-ámíráy 'when the women saw (things were) like women when see thus PRM Tot-running that, they would just run away'

Because ideophones as manner adverbs are specific to the type of event they characterize and often refer to the action of specific verbs, they can be used with a general verb like 'do' or even with no verb at all while still communicating their meaning.

kwáa biy tǎvə ká, d-àa dǎma kakətləriy
 when Prt walk when dǎ-Ipf do clattering (id)

'when he walked, he would clatter along' (he went "clatter-clatter")

duw dǎrrup aa shooshoo dǎ səkəna-y
 Qt gulp (id.) with rooster Sjn swallow-Tot

'he goes "gulp!" with the rooster and swallows [him] down'

A word which has manner-like properties, both in meaning and in syntactic placement, is the universal quantifier *ndyâam* 'all'. It is even ideophone-like in that ideophones often have non-canonical phonological properties (cf. *kátl* and *dǎrrup* above, which end in obstruents, thus violating canonical syllable structure—2:§3.1). *Ndyâam* bears a falling tone and has a long vowel in a closed syllable, both properties not found in substantive lexical items. In 9:§5.2, I argue that *ndyâam* can appear in contexts and have interpretations that make it appear to be more like a manner adverb meaning 'completely' than a nominal quantifier. Below are two examples, the first with an ideophone *káp*²² and the second with *ndyâam*. There is no apparent difference in the relevant syntax or semantic interpretations of these sentences.

mùku taká a bay-tlèn káp 'on that day one will take them all'
 day that Ft take-them completely (id) or 'on that day one will completely take them'

²²I call *káp* an ideophone rather than a quantifier in that it appears neither in texts nor elicited data in canonical quantifier uses, e.g. in expressions like 'all the children'. *Nyâam* (10:§4.3) is the only word I found with this meaning in such contexts.

miy buway aawasə miy ləmb-uwsə ndyaam 'eeyi
we bring grass we cover-it all there

'we bring grass and we cover it [the fermenting grain] all there'
or 'we bring grass and we completely cover it there'

1.11. Temporal adverbs. Non-clausal temporal adverbs are all expressed by words with no other function, e.g. *náná* 'today', *dàbaja* 'this year', or by forms derived from nouns by addition of a suffix *-a*, e.g. *màtsawá* 'during the harvest season' (< *màtsaw* 'harvest season'), *rádzà* 'in the afternoon' (< *rádzó* 'afternoon'). See 8:§5 for a complete list of lexical and derived temporal adverbs. Temporal expressions use no prepositions to mean 'at' for point time or 'during' for duration. Temporal expressions can be constructed using *kwápa/kwáfa* 'until', (*hár*) *bàhiy* 'until, up to', (*tón*) *àa* 'from', and *kàafən* 'before'. Unlike predicate constituents discussed in previous sections, temporal adverbs can be fronted without a sense of focus (see several examples below). When the temporal adverb is in a negative predicate, the final negative marker follows it (3rd and 4th examples).²³

tíywyí-ka rədzà 'come in the afternoon!' (plural imperative)

à dəma-tlən àakír camáza 'they were burglarized at night'
Pf do-to them burglary at night

à ta má ham bá taa hacaawúw-úw 'they didn't eat in the early morning'
Pf eat NEG thing for eating morning-NEG

wíy ta jiy b-úws ée tsəgaya tsəpər camàza-w
anyone Hrt NEG Prt go-ICP in order squat urine at night-NEG

'no one should go to urinate at night'

təvam də dín(a) àazábə àa tsuway hár bahíy 'àzàhàr
women Sjn keep on dancing from morning until to early afternoon

'the women keep on dancing from morning until early afternoon'

tón àa bazara t-áa wasən-úwsə háa-tlən hár bahíy mátsawà
since from hot season he-1pf spend year-ICP place-their until to harvest

'beginning from the hot season, he will spend the year with them up until the harvest season'

mùku taká a bay-tlən káp 'on that day they will all be taken'
day that Ft take them all (id)

wíy lookàciy ká a pəra pərà ghəruwiy kúsan fiyé 'ənáa d'əriy wutó
some time PRM Ft slaughter slaughtering cows close to more than hundred one

'sometimes they will slaughter almost more than 100 cows'

kàafən wíy lookàciy də mənə 'ára wiy tál
before another time Sjn do again brew another beer

'sometime later one will again brew beer'

²³This is in contrast to Hausa, where the adverb can precede or follow the final negative *ba*, e.g. *ban gan shi jiya ba* or *ban gan shi ba jiya* 'I didn't see him yesterday', and to Ngizim, where the temporal adverb must follow the sentence final negative marker *bai* in order to get the desired interpretation, e.g. *wàa dlama wana bai amzharu* 'we won't finish the work tomorrow (*amzharu*)'. Placement of *bai* after *amzharu* would force a reading 'we will finish the work (but) not tomorrow' (Schuh 1972:465).

See also §1.4.2 for temporal inception ('from dawn', etc.) using *áa* 'from'.

1.12. "For the purpose of ...", "for the sake of ...". Benefactives where the beneficiary is directly affected are formally identical to datives (§1.3). Indirect benefactives, usually translatable as 'for the sake of ...', use the preposition (*à*) *dama*, which is the same word used to introduce purpose and reason clauses (14:§9).

míy d'ən niykin áadama ghónsə 'we did this for the sake of God'

à 'ár mír áadama wútləmí niywasə 'he put aside money for the sake of his children'

báa də dəma wár-a àadam-uwsə ká
one who də do festival-pln for-him PRM

'the one on whose behalf the festival is held' ('the one that they do the festival for him')

1.13. Pleonastic *aa* ("pln"). Miya has several prenominal morphemes whose segmental form is long [*aa*]. Some of these may constitute one multifunctional morpheme.

àa marker of a postverbal subject, labeled *PS* in examples (§1.2.1)

àa instrumental 'with' (§1.5); "HAVE" in non-verbal 'HAVE' sentences (§4.3)

àa marker of objective complements (§1.8)

áa locative source 'from' (§1.4.2)

áa- prefix on locative nouns (8:§6.1, §1.4.1) and various prepositions, etc.

Sometimes these morphemes are accompanied by a second *a(a)*. It is particularly common with the *àa* marking postverbal subjects, but this may be because this is the textually most frequently occurring "*aa*" morpheme. I found pleonastic *aa* in elicited examples and in texts, including both texts which were recorded in oral presentation and texts which were first written in Miya without prior oral presentation. I was unable to predict when this *a(a)* would appear or what its function is. I hence refer to it as *pleonastic aa*, labeled *pln* in interlinear glosses of examples. Not only are the conditions under which pleonastic *aa* appears elusive, but its position is also. Since it always co-occurs with a morpheme which itself has the segmental shape *aa*, it is unclear which of the two *aa*'s is the "real" *aa* morpheme and which the pleonastic one. For consistency and convenience, in glossing examples, I have always labeled the first *a(a)* as "*pln*" and the second one with the substantive gloss, but I can cite no justification from the syntactic facts for doing this. One might think that tones could be a clue. However, the tones of the *aa* morphemes are themselves elusive (see the respective sections). Usually, when pleonastic *aa* appears, the two *aa*'s have opposite tones, but I can provide no generalizations about tones in specific contexts. Below are some examples containing *pln* drawn from elsewhere in this grammar. Section numbers in parentheses are the sections where the examples appear.

Postverbal subject

dàga baa-tlən dəmaa ghad'uw jíy də súw kón-a àa lakumiy t-aatsákəm (11:§4.7)
when go-ICP make wood "then" də Tot here-pln PS camel of-bush

'when they had gone to gather wood, then here [comes] a giraffe'

dàga nay-úws aa àa naká sòn n-aaGítuwà, jée d'ènga-yá, "Bárkà aa buwákə." (9:§3.1.2)
 when see-him pln PS that man of-Gituwa then say-to him greetings with coming

'when that man from Gituwa saw him, he said to him, "Greetings on your arrival."'

kàafòn də bíy buw-sə d-áa àa sòn n-aaGítuwà (6:§3.1)
 before Sjn Prt come-ICP Prt-pln PS man of-Gituwa

'before the man of Gituwa came'

tá mbəna-tla s-áa àa 'an ká ... (14:§2.1.2)
 if be beautiful-ICP Tot-pln PS woman PRM

'if the woman is beautiful ...'

Instrumental 'with' and 'HAVE'

Q: fíy áa halà kán-f-a àa maa? (12:§2.2.5)
 you Ip screen house-your-pln with what

A: mən aa hálà kán-wàn-áa àa gəgadə

Q: 'what will you screen your house with?'

A: 'I will screen my house WITH A ZANA-MAT'

món kùwa zuw-áa àa magirbi (11:§1.5)
 I harvest sorghum-pln with hoe

'I harvested sorghum with a hoe'

Q: fà kwíy zhàakə wánkwa? (12:§2.2.6)
 you catch donkey how

A: món kwiy-tlà kwíy(a) aa àa wuya
 I catch-it catching pln with difficulty

Q: 'how did you catch the donkey?'

A: 'I caught it WITH DIFFICULTY'

Ndúwy-áa àa mootá (12:§2.3.2)
 Nduya-pln with/have car

'Nduya has a car'

Objective complement

kwáa biy bay-tlà háa-tlən ká, dè d'əma 'am-á àa njə (11:§1.5)
 when Prt take-her place-their when Sjn do wife-pln with her

'when they take her home, they make a wife out of her'

Locative source 'from'

Fà boo-kw-áa àa yukwá? (14:§3.2)
 you go out-ICP-pln from where

'Where do you come from?'

aa- prefix

Báa dè d'əma wár-a àadam-uwsə ká tə jíy zàb(a) aazábə 'ənáa (12:§4)
 one who dè do festival-pln for-him PRM he Foc dance dancing with

niywasə t'əvam
 wives his

'The one for whom the festival is performed, HE will dance with his wives.'

... dè d'ənga-tlá aanduw, "Wáncèe, mən áa àaluw-ghən." (5:§2.2.3.2)
 Sjn say to-her quote, So-and-so, I pln love-you

'... then he says to her, "So-and-so, I love you."'

The exact analysis of the last example is questionable. The word *àalúw* 'love, loving' is not a verb but rather a "dynamic noun" with a prefix *aa-*. It seems always to appear as the head of a predicate and is akin to the Imperfective (5:§2.2.3). The Imperfective auxiliary *àa* may therefore also be playing a role here. In any case, pleonastic *aa* is present because any other *aa* morphemes would contract to give a single [*aa*].

2. Imperatives and Hortatives

The morphology of Imperative and Hortative verbs is described and illustrated in 5:§§2.1.1-2 and the corresponding negatives in 5:§3.3. Tonal properties peculiar to these forms are described in 4:§1.2.3.6. The present section summarizes the syntax of these sentence types.

Second person singular and plural and first person plural use special Imperative verb forms with no preverbal subject pronoun. Third persons use the Hortative with a preverbal auxiliary *tà*, which is invariable for number and gender. Gender and number can be shown with an independent pronoun preceding the auxiliary, but this is rarely done, and such pronouns are probably topics rather than grammatical subjects (§1.2.2). First person singular hortative ('I should do ... , let me do ...') uses a preverbal construction *gà-naa* (5:§2.2.7). A similar construction, *gà-yaa*, can be used in first person plural as an alternative to the more common first person plural imperative. In the negative, all imperatives and hortatives use the Negative Subjunctive, which is distinct from other negatives in that it uses a preverbal negative *ta* rather than the *má* found with all other negatives. Like other negatives, Negative Subjunctive has a clause final *-úw*.

Imperative	Hortative (3rd persons)	1st person Hortatives
'call!', 'let's call!'	'let him/her/them call!'	'let me/us call!'
zàr 2nd ms/fs	tà zar 3rd ms/fs/pl	gà-naa zaraw 1st sg
zàr-íy 2nd pl		(gà-yaa zaraw) ²⁴ 1st pl
zàr-iy-má 1st pl		
'stop!', 'let's stop!'	'let him/her/them stop!'	'let me/us go!'
tsór-kù 2nd ms	tà tsór-tà ms	gà-naa bu-wún 1st sg
tsər-kəm 2nd fs	tà tsór-tlà fs	
tsór-iy-kà 2nd pl	tà tsór-tlən pl	
tsór-iy-ma 1st pl		gà-yaa baa-má 1st pl

²⁴I found this first plural Hortative form only in a song text. The example is in parentheses here because I did not record this exact utterance. I have produced this illustrative form on the basis of analogy with forms I actually attested, such as *gà-yaa táw* 'let's eat'.

NEGATIVE '... not call!'

1 sg	mèn tsa zará-w	1 pl	mìy ta zará-w
2 ms	fà ta zará-w	2 pl	hèn ta zará-w
2 fs	mà ta zará-w		
3 ms	(tíy) tá zàrá-w	3 pl	(tlón) tá zàrá-w
3 fs	(njó) tá zàrá-w		

3. Comparison and Equation

Comparative and equative sentences are verbal sentences using the following verbs:

rà	'exceed, be more ... (than ...)'
dámà ²⁵	'equal, reach, be as ... (as ...)'

In affirmative sentences, these verbs usually use a cognate complement construction (7:§5). However, comparative constructions follow the pattern of other verbs in excluding cognate complements in negative sentences, clauses which contain the Totality construction, and certain types of subordinate clauses, such as relative clauses. The syntax of comparative and equative constructions which include the cognate complement is as in the following schema. As the parentheses indicate, the standard of comparison is not an obligatory part of the construction. If absent, it must be inferred from context.

Subject AUX *ra* $\left\{ \begin{array}{l} ra \text{ (pro-DO)} \\ ra \text{ N-DO} \end{array} \right\} (à\grave{a} \text{ Standard of Comparison})$

The Totality construction (7:§2) was sometimes used instead of the cognate complement. The following pairs of sentences were said to be equivalent:

Cognate complement	Totality	
à raa ráw	= à raa s-áy	'he is better'
à ra-r ráw /n/	= à ra-n s-áy	'he is better than me'

Below are examples from elicitation and texts of comparative and equative sentences in various configurations:

No standard expressed

mà ra-tlá ràw	'you (fs) are better/older/etc. than her'
Kásham raa ráa Jàalá	'Kasham is better/older/etc. than Jala'

jée nayáw sàmáy n-aaGítuwà a raa ráa n-aaMángìla

'then they saw that the trash heap of Gituwa was greater than that of Mangila'

²⁵I assume that this is the same root as the verb meaning 'reach, arrive at' (= Hausa *kai*). However, in all my examples in the meaning 'reach', it is a Ø verb (4:§1.1.1), e.g. *mán dèn s-aaGàaruw-ay* 'I reached Bauchi (Gaaruw)', whereas in all my examples in the meaning 'be equal to', it is a final -a verb.

No compared object expressed

Kásham raa r(aa) áa kyaràti	'Kasham is taller'
báa dùw samáy nuwsə dó rá àa casə ká	'the one whose trash heap was greater in amount'

Both standard and compared object expressed

mà ra-r r(aa) áa mban	'you (fs) are more beautiful than me (-r < /-n/)'
Kásham raa ráa Jàalá kyaràti ²⁶	'Kasham is taller than Jala'

sámáy n-aaGítuwà dè raa n-aaMángìla aa casə

'the trash heap of Gituwa was bigger than that of Mangila'

mèn jíy baa dè ra-tlón aa wàshasham	'it was I who was older than them'
I Flp one who Pf exceed-them for year	

Negative comparatives

mà ra-tlá m(a) aa mban-uw	'you (fs) are not more beautiful than her'
you-Pf exceed-her NEG for beauty-NEG	

Kásham raa máa Jaala kyaràty-úw²⁶ 'Kasham is not taller than Jala'

Equative sentences

mà dàmá-n dàm(a) aa mban	'you (fs) are as beautiful as me'
Kásham dàmá d'amaa Jàalá kyaràti	'Kasham is as tall as Jala'
mà dàmá-m m(a) áa mban-uw	'you (fs) are not as beautiful as me'
Kásham dàmá máa Jaala kyaràty-úw	'Kasham is not as tall as Jala' (cf. fn. 26)

The verb *b-ay* 'take to, transport', derived from the verb *ba* 'go' using the transitizer *-ay* (7:§4.1.1), can also be used as an equative. The first example below, from elicitation, has the same structure as the comparatives and equatives above. The second and third examples, from texts, are semantically different from the equatives above. In the equative examples above, two entities are said to be equal with respect to a property without quantifying the property itself. In the second and third examples below, it is not two entities which are being equated. Rather, the amount of one entity is being equated to a specific quantity. I do not know whether *d'ama* 'be equal to' can be used in this way.²⁷

Kásham bay bàyáa Jàalá kyaràti	'Kasham is as tall as Jala'
còonákèn shím ta wiy aa kám à báy bàyá míl dífí tsàr-ay	
now farm of certain one from home Pf reach reaching mile 20-Tot	
'now the farms of some people are as far away as 20 miles'	

²⁶In this example and its negative and equative counterparts below, I did not hear the long *àa* preposition usually accompanying the standard of comparison. The preceding noun ends in short *-a*, so the preposition may have been elided by this vowel, but normally the result of such elision would be a long vowel.

²⁷The constructions with *bay* here have a morphologically interesting property. The cognate complement *baya* ends in *-a* and would thus appear to be a participle (4:§2.1.1), the form that most verbs take when used as cognate complements. However, verbs with the transitizing suffix *-ay* do not end in *-a* as main verbs in nominal TAM's, the other environment where the participle is used. Cf. 7:§4.1.1.

á raḃá zúw a bay báya kusan bùfúw dərbitim-ay
 Ft moisten sorghum Ft reach reaching almost bag 10-Tot

'they will moisten sorghum (which) will be as much as almost 10 bags'

Hausa has a verb *kaasàa* 'be less than' which can function in comparative sentences in the same way as the Miya verb for comparison and equation illustrated above. In eliciting sentences with Hausa *kaasàa*, I was given the following, which have a structure that I do not fully understand. It seems that *kaasàa* itself (borrowed as such from Hausa) is treated as intransitive in Miya (the ICP occurs only on intransitive verbs—5:§4.1) and the object of comparison is in a genitive relation to the cognate complement.

Kásham kaasà-ta káasaa tàa Jáalà 'Kasham is less (tall) than Jala'
 Kasham be less-ICP lessening of Jala

mà káasà-kən kása tuwun àa mban 'you (fs) are less beautiful than me'
 you be-less-ICP lessening of me for beauty

4. Non-verbal Sentences

Typical of Chadic languages, Miya forms certain sentence types without a verb. These are sentences expressing identification, sentences predicating a property of a subject (adjectival sentences), sentences expressing possession ("HAVE" sentences), sentences expressing existence, sentences expressing location, sentences expressing state, and presentative sentences ('here is ...', French *voilà*, Hausa *gàa* ...).

4.1. Equational and identificational sentences. By *equational* sentences, I mean those whose subject and predicate are both noun phrases. These may state subset membership of a generic referent in a larger set ('a skink is a [type of] lizard'), membership of a definite referent in a set ('he/Bill/that man is a linguist'), or identity of reference of two definite noun phrases ('he/Bill/that man is the killer'). Miya makes no grammatical distinctions among these types. By *identificational* sentences, I mean sentences which establish (or question or negate) identity of a referent. Such sentences are expressed in English by 'it's ...' or 'they're ...'. The sections in this chapter discuss only neutral affirmative and negative non-verbal statements. See 12:§2.3.1 for equational and identificational sentences with questioned or focused elements.

4.1.1. Simple equational and identificational sentences. The neutral form for *equational* sentences is simple juxtaposition of the subject and the noun phrase predicated of that subject without further marking. Pronominal subjects use the independent pronouns (8:§1.1).

Ndùwya miy-dzəhə 'Nduya is a Miya-man'
 Ndikay miy-dzaku 'Ndikay is a Miya-woman'
 tàmáku dabbà t-aakám 'a sheep is a domestic animal (animal of-house)'
 tíy miy-dzəhə 'he is a Miya-man'
 fíy bá kífú 'you (ms) are a blacksmith'
 míy sɛbə niy malvɔ́ 'we are adherents to (people of) the chief'

Q: Fíy sòn na yùkwá? 'Where are you from?' (you person of where)

A: Mòn sòn na 'iykón. 'I am from here.' (I person of here)

One may express *identification* by stating the noun phrase alone, e.g. Q: *Tá mà?* 'What is it?', A: *Támáku*. '(It's) a sheep.' There is a more frequently used construction, however, which places the identified predicate in sentence initial focus position followed by *jíká* (= Hausa *kèe nán*), e.g. *Ndùwya jíká* 'it's Nduya', *mán jíká* 'it's me'. This construction is further discussed in the section on questioned and focused constituents (12:§2.3.1), though in identificational sentences, this is the preferred construction type even when no strong pragmatic focus is evident.

4.1.2. Equational sentences with the auxiliary *də* and Totality *súw ... -áy*. In elicited data, constructions with simple juxtaposition were the only type volunteered for equational sentences. In texts, I found other variants. One includes the clitic *də* preceding the predicate. I refer to this as the "Imperfective" use of *də* in 5:§2.2.9. In this use, *də* is never *syntactically* required and may co-occur with any person, not just third person as in some other uses of the same clitic. As noted in 5:§2.2.9, there are no obvious pragmatic or functional factors conditioning the presence or absence of *də* in these contexts. The second variant of equational sentences that appears in texts encloses the predicate in the discontinuous Totality construction *súw...áy* (7:§2). The clitic *də* may be used together with this construction as well. Equational sentences with the Totality construction usually are translatable as 'become', i.e. they signal change of identity of some kind. However, I do not have enough examples to state with confidence that this is a consistent function of this construction.

(t-áalúw) mən də gyam-uwsə 'he wants me to be his friend'
 he-wants I də friend-his

shíykèenán njè súw bəzaniy tuws-áy 'well she has become his fiancée'
 that's it she Tot fiancée his-Tot

mán də súw wùn tɔɔm-áy 'I (will) become your daughter'
 I də Tot daughter your (fs)-tot

Related to equational sentences or identificational sentences with the Totality construction are clauses consisting of a nominalized verb using the same construction. These typically represent an action which is a culmination or a climactic spot in a series of events. "It's just [action]" would often be a reasonable translation. This construction is syntactically like equational or identificational sentences in that a nominal (in this case, *nominalized*) construction alone constitutes a clause. They differ in that the constructions in question represent an event rather than predication of a property. See 14:§3.2.3 for further discussion.

kwáa ts(a) áa yùw ká, súw pəlaká tál-áy 'when dawn comes, they (just) mix the beer'
 when give PS dawn when Tot mixing beer-Tot

dùw súw kiyáhiyà-z(a) aaghám-úws-ay 'he says he'll (just) take her on his head'
 Qt Tot taking-her head-his-Tot

shíykèenán súw sàadúwàa jíyká-y 'well it was (just) a meeting'
 that's it Tot meeting it is

4.1.3. Equational sentences with a name as predicate. As in many other languages, a sentence such as 'his name is John', identifying a subject with a name, does not use a neutral equational sentence (simple juxtaposition in Miya).²⁸ Miya requires an auxiliary *jíy*, which elsewhere has the function of focusing the subject of an equational sentence (12:§2.3.1) or Imperfective verbal sentence (5:§2.2.4). In sentences with a name as predicate, this focus function is not evident, however (cf. similar lack of focus function in existential sentences in §4.4). The first example below is from a text naming the founders of Miya town. The examples following that are a piece of dialogue from a folktale.²⁹ Note that "what?" in 'What is your name?' is literally "who?"

tòo	dāamá	ngə̀n-uwsə	jíy	Gitúwà	'well OK, ³⁰ his name was Gituwa'		
well	"OK"	name-his	AUX	Gituwa			
M:	Duw,	"Ngə̀n-ɾɾm	jij	wee?"	'He said, "What is your (fs) name?"'		
	Qt	name-your (fs)	AUX	who			
L:	Njə	duw,	"Ngə̀n-afə̀	fiy	jij	wee?"	'She said, "Your name, who are you?"'
	she	Qt	name-your (ms)	you	AUX	who	
M:	Duw,	"Ngə̀nu-wun	jij	Mamman."	'He said, "My name is Mamman."		
	Qt	name-my	AUX	Mamman			
L:	Njə	kuma	duw,	"Ngə̀nu-wun	jij	Lafe."	'She too said, "My name is Lafe."
	she	too	Qt	name-my	AUX	Lafe	

As noted in fn. 28, some languages use a quotative marker to introduce proper names ('my name [is] "quote" John'). Miya does use its quotative marker *dúw/ànduw* with names, but this seems to occur only in complements of verbs of 'calling', not in equational sentences, e.g. *wíy jìyéeyí ba na zàr-uws ánduw Bàakó* 'there is a certain man whom they call Bako'. See 13:§6.4 for further discussion.

4.1.4. Negative equational and identificational sentences. Negative equational and identificational sentences have the following structure:

(NP) *də maa* NP -úw (*də* is optional with pronoun subject)

Ndùwya	də	maa	wíyahón-dzə̀h-úw	'Nduya is not a Hausa-man'
tíy	də	maa	wíyahón-dzə̀h-úw	'he is not a Hausa-man'
món	máa	ba	kúf-uw	'I am not a blacksmith'

²⁸Some languages use the equivalent of the Miya quotation marker in such sentences, e.g. Ngizim *długun-gaa maa Tambai* 'my name [is] "quote" (maa) Tambai' (Schuh 1972:73). As pointed out by Junaidu (1995), Hausa forms such sentences by simple juxtaposition of namee and name, e.g. *sunana Musa* 'my name [is] Musa', whereas normal equational sentences require the "stabilizer" *ne/ce*. The reason that "name" sentences do not pattern with equational sentences is semantic, viz. whereas a true equational sentence predicates a property of its subject, a naming sentence delimits a general characteristic, viz. the name of an individual. However, it is not clear how this semantic difference might explain the specific syntactic differentiations which languages make.

²⁹The quality of the recording is very poor, making it hard to hear the tones accurately. I have thus omitted tone marking on these examples.

³⁰*Tòo* and *dāamá* are fillers or hesitation markers borrowed from Hausa, meaning something like 'OK' and 'well, ya know' respectively. They have no grammatical effect on what follows.

món	də	maa	míy-dzə̀h-úw	'I am not a Miya-man'	
hón	máa	sə̀bə	niy	málv-úw	'you (pl) are not adherents of the chief'
də	maa	Ndúwya-w		'it's not Nduya'	
də	maa	món-uw		'it's not me'	

4.2. Adjectival and quantifier predicates. Sentences with adjectives or quantifiers as predicates have the same range of formal structures as equational sentences. Adjectives must agree in gender and number with the subject. See 8:§3 for gender and number marking on adjectives. Examples are listed with reference to the relevant subsections of §4.1 for discussion of form:

Simple adjectival predicates (cf. §4.1.1)

vórkə	ka	gə̀bə̀na	'the (<i>ká</i>) boy is small'
wùn	ká	gyàbiya	'the girl is small'
wùtlə̀míy	ka	gyàaḃóonìy	'the children are small'
mbə̀rgu	ká	tə̀ pyóona	'the ram (it <i>tə̀</i>) is white' ³¹
tə̀máku	njə̀	pyóoya	'the ewe (it <i>njə̀</i>) is white' ³¹
tə̀makwìy	ká	pyòoniy	'the sheep are white'

Simple quantifier predicates³² (cf. §4.1.1)

tòo	tíy	wàshasham-wasə̀	díḃi	kídi	bahən	tsə̀r	'well, he was 32 years (on the throne)'
well	he	years-his		thirty-two			
málvə̀	də̀	ndə̀	wutə̀				'there was just one chief'
chief	<i>də̀</i> (§4.1.2)	just	one				

Adjectival predicates with totality *súw...-áy* (cf. §4.1.2)

tə̀	súw	gàra	bá	sóm-ay	'he became a prominent person'
he	Tot	important	one	who	person-Tot
tə̀	súw	tsə̀ntsəm-ay			'it became fermented'
ábíy	súw	ràd'yaḃ-áy			'the water got cold'

Negative adjectival predicate (cf. §4.1.4)

wíy	máa	tùwah-uw	'no one is different' ('one [is] not different')
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4.3. Possessive ('HAVE') sentences. 'HAVE' sentences have the following structure:

SUBJECT (AUX) *áa'* possessed-NP

³¹This example is as volunteered in elicitation. The noun phrases *mbə̀rgu ká* and *tə̀máku* are topics, with pronouns as grammatical subjects.

³²It may be that only numbers can function as predicates in quantifying sentences. The quantifier *cəsə̀* 'much, many', which can function as a direct attributive modifier of a noun (10:§4.2), is treated as a noun when used as a predicate, thus requiring a 'HAVE' construction (§4.3), e.g. *tlən j-áa cəsə̀* 'they are numerous' ('they have abundance'). *Cəsə̀* is also treated as a noun in comparative constructions (see §3 for an example).

Pronominal subjects are expressed by the subject clitics called *Imperfective with AUX* in 8:§1.2. They have H tone before the negative AUX, L tone elsewhere. The head of the 'HAVE' predicate, *áa*, is probably the instrumental preposition 'with' (§1.5), but they differ tonally in that the instrumental bears L tone and 'HAVE' bears H. Both impose L on the following tonal domain.

'HAVE' sentences frequently have one of the following auxiliary elements (AUX) in addition to *áa*. The first two (*s-*, *g-*) add no obvious meaning, but they seem particularly common in yes/no questions and responses:

- s-* Probably the *súw* of the Totality construction (7:§2, §4.1.2 above), but the final *-áy* seems never to occur in 'HAVE' sentences.
- g-* The same AUX is found in one form of the Imperfective—cf. 5:§2.2.3.3, where it is pointed out that this AUX is typical of yes/no questions and certain conditionals. It is also one of the common AUX forms in existential sentences (§4.4).
- j-* Used when the subject is questioned or focused—see 12:§2.2.1.
- má-* Negative; accompanied with clause final *-úw* and is mutually exclusive with other AUX's.

'HAVE' sentences require an overt subject, noun or pronoun. The auxiliary *dà* (5:§2.2.9, §4.1.2 above) seems never to appear in 'HAVE' sentences. These properties are shared by locative sentences (§4.5).

'HAVE' sentences with no AUX

- nákən malvó t-aa mbàsaka hali 'this chief has an evil disposition'
 nj-áa vùw 'she is pregnant' ('she has a stomach')

'HAVE' sentence with a non-negative AUX

- Ndùwya g-áa m̀r = Ndùwya s-áa m̀r 'Nduya has money'
 m̀n àa m̀r = m̀n g-áa m̀r = m̀n s-áa m̀r 'I have money'

$\left. \begin{array}{l} f\grave{a}a \\ m\grave{a}a \\ t\grave{a} \\ nj\grave{e} \\ m\grave{i}y \\ h\grave{e}n \\ t\grave{l}\grave{e}n \end{array} \right\} g\text{-}\acute{a}a\ m̀r$	$\left. \begin{array}{l} \text{you (ms)} \\ \text{you (fs)} \\ \text{he} \\ \text{she} \\ \text{we} \\ \text{you (pl)} \\ \text{they} \end{array} \right\} \text{have/has money'}$
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(These were the first forms volunteered, but *áa* alone or *s-áa* are acceptable with approximately the same meaning.)

- Q: f\grave{a}a s-áa dùwak\grave{e} wa? 'do you (ms) have a horse?'
 A: h\grave{o}, m̀n g-áa nj\grave{e} 'yes, I have one (lit. 'I have it (fs)')

(Note that the answer uses a different AUX from the question.)

Negative 'HAVE' sentences

- Ndùwya m-áa dùwak-úw 'Nduya doesn't have a horse'
 m̀n m-áa dùwak-úw 'I don't have a horse'
 f\grave{a}a m-áa m̀r-úw 'you (ms) don't have any money'

4.4. Existential sentences. The structure of existential sentences is as follows:

- AFFIRMATIVE: NP $\left\{ \begin{array}{l} j\grave{i}y\ eey\acute{i} \\ g\text{-}eey\acute{i} \end{array} \right\}$
 NEGATIVE: NP $\left\{ \begin{array}{l} m\grave{a}\text{-}yy\text{-}\acute{u}w \\ m\grave{a}\text{-}n\text{-}eey\text{-}\acute{u}w \end{array} \right\}$

Existential sentences are actually locative sentences (§4.5) whose predicate is *eeyi* 'there, the place in question' (8:§6.3), i.e. existential sentences literally mean 'NP is here/there'. Existential sentences require an overt referential subject, either noun or pronoun. They also require an auxiliary element, i.e. *jy* or *g-* in affirmative clauses and the regular negative *má...-úw* in negatives. *Jy* is the auxiliary marking *focused* subjects in Imperfective verbal sentences (5:§2.2.4) and most non-verbal sentences (12:§2.3). In existential sentences, the noun phrase of which the existence is being predicated bears inherent pragmatic focus, which accounts for the apparent "neutral" use of the auxiliary *jy*. *G-* is used in Imperfective verbal sentences (5:§2.2.3.3) and 'HAVE' sentences (§4.3). It is typical of yes/no questions and their answers but is not restricted to those environments. Negative existentials may include an additional auxiliary *n-* whose function is unclear.

- Q: g\grave{o}r\grave{o} g\acute{e}ey\acute{i} w\acute{a}a? 'are there any kola nuts?'
 A: h\grave{o}, $\left\{ \begin{array}{l} t\grave{a} g\acute{e}ey\acute{i} \\ g\grave{o}r\grave{o} g\acute{e}ey\acute{i} \end{array} \right\}$ 'yes, $\left\{ \begin{array}{l} \text{there are} \\ \text{there are kola nuts} \end{array} \right\}$ '
 Q: g\grave{o}r\grave{o} m\acute{a}yy-\acute{a}a?³³ 'aren't there any kola nuts?'
 A: 'á'á, $\left\{ \begin{array}{l} t\grave{a} m\acute{a}yy\text{-}uw \\ g\grave{o}r\grave{o} m\acute{a}yy\text{-}\acute{u}w \end{array} \right\}$ 'no, $\left\{ \begin{array}{l} \text{there are not} \\ \text{there are no kola nuts} \end{array} \right\}$ '
 Q: t\grave{l}\grave{e}n g\acute{e}ey\acute{i} w\acute{a}a? 'are they around?, are they here?'
 A: t\grave{l}\grave{e}n m\acute{a}\text{-}n\text{-}eey\text{-}\acute{u}w 'they aren't around, they aren't here'
 h\acute{a}m ba faar\grave{a}\text{-}t\grave{l}\grave{e}n j\grave{i}y eey\acute{i} 'there's something which happened'
 thing that happen-ICP AUX there
 á j\grave{i}y mar\grave{a} w\acute{i}y wuriy, m\grave{e}dzay j\grave{i}y eey\acute{i} 'he found a place (and) there was
 ?Sjn Prt find a place earth AUX there earth there'
 w\acute{i}y b\acute{a}a d\grave{e} taa gwalf\grave{e} m\acute{a}\text{-}yy\text{-}\acute{u}w 'there was no one else who got the chieftancy'
 one that Pf eat chiefship NEG-there-NEG
 w\acute{i}y han m\acute{a}\text{-}n\text{-}eey\text{-}\acute{u}w 'it's OK, it doesn't matter' (H: *babu komai*)
 some thing NEG-AUX-there-NEG

³³The interrogative morpheme *-a(a)* elides the clause final negative marker *-úw*. See 12:§1.

In affirmative existential sentences with the auxiliary *g-*, the clitic *də* can also be used (cf. 5:§2.2.9 and §4.1.2 above for comments):

wíy də g-éeyí	'there was another one'
níywiy írìn-ma də g-éeyí	'there are others like us'
others type-our də AUX-there	

4.5. Locative sentences. Locative sentences juxtapose the subject and the locative predicate without other auxiliaries. When the location is a noun, it is in its locative form (8:§6.1). Negative locative sentences enclose the predicate in the discontinuous negative construction *má...-úw*. Form of pronoun subjects differ depending on the type of predicate:

- Independent pronoun (8:§1.1) with L tone before locative predicates beginning in *aa-*
- Independent pronoun with H tone elsewhere in affirmative locative sentences
- Imperfective pronoun (8:§1.2) with H tone in negative locative sentences

Locative sentences require an overt subject, noun or pronoun. The auxiliary *də* (5:§2.2.9, §4.1.2 above) seems never to appear in locative sentences. Their properties are shared by 'HAVE' sentences (§4.3).

mən aakyar-wásə	'I am behind him'	mən vənə-fó	'I am in front of you (ms)'
fíy aakyar-wásə	'you (ms) are behind him'	fíy vən-uwə	'you (ms) are in front of him'
t-àakyar-wán	'he is behind me'	njó vènu-wun	'she is in front of me'
món 'íykən	'I am here'	món má 'íykən-uw	'I am not here'
fíy 'íykən	'you (ms) are here'	fáa má 'íykən-uw	'you (ms) are not here'
Ndúwy(a) aakáasùw = Ndúwya t-aakáasùw ³⁴ 'Nduya is in the market'			
Ndúwya gan 'íykən		'Nduya is here'	
tlən aakám		'they are at home'	
tə d'ɾɾ dáy nakən		'he is among these rocks'	
wùtlómíy má 'íykən-uw		'the children are not here'	

4.6. Stative sentences. Stative sentences indicate that the subject of the sentence is in the state implied by a verbal event. With intransitive verbs, the subject has entered into and remains in the state ('he is *seated*'); with transitive verbs, the grammatical subject is the semantic object which has entered into the implied state ('the food is *cooked*'). The basic form of stative sentences is as follows:

SUBJECT { *áa`* Verbal N w. initial C }
 { *éé* Verbal N w. initial *á-* }

³⁴There seems to be a preference in locative sentences for a nominal semantic subject to be a topic, with a pronoun as grammatical subject. The example immediately below has an AUX *gan*, whose function is unclear, though it must include the *g-* auxiliary seen in other non-verbal sentence types—see sections above and 5:§2.2.3.3.

At first glance, these have the appearance of Imperfective verbal clauses with either the AUX *áa* (5:§2.2.3.1) or the AUX *éé* (5:§2.2.3.4). However, there are two differences between Imperfective and stative sentences. First, Imperfective verbal clauses use the Participle (4:§2.3) as their verbal form³⁵ whereas stative sentences use the Deverbal Noun (4:§2.3) or Gerund (4:§2.2). Second, the *áa`* and *éé* of stative sentences seem to be prefixes on the verbal form rather than auxiliaries. The main reason for proposing this analysis is that the claimed prefixes are in complementary distribution according to the type of nominalized verb they are used with, whereas no other preverbal auxiliary clitic is sensitive to the morphological or lexical status of its host.

Some verbs have idiosyncratic Deverbal Nouns. Other verbs lack a special Deverbal Noun and use the Gerund in its stead. If a verb has a Deverbal noun which begins with a prefix *á-*, that prefix is replaced by *éé-* in a stative sentence. If the Deverbal Noun begins in a consonant or if the verb uses a Gerund (all of which begin in consonants), the nominal form takes the prefix *áa`* (the floating L indicates that this prefix imposes L on the initial tonal domain of the root).

Verb	Deverbal noun	Gerund	Stative form	
tsəga	átsəgə	(tsəgəkə)	éé-tsəgə	'sit down'
d'əhən`	d'yáhyahyàn	(d'əhənəkə) ³⁶	áa-d'yáhyahyàn	'tie up'
kàw	-----	kàwakə	áa-kàwakə	'fry'
málv éé-tsəgə = málvə t-ee-tsəgə ³⁷ 'the chief is seated'				
'án tuwun nj-ee-tsəgə			'my wife (she) is seated'	
səbə tlən ee-tsəgə			'the people (they) are seated'	
ghəruwiy éé-tsətsər			'the cattle are standing'	
(cf. <i>ghəruwiy tsər-tlən s-áy</i> 'the cattle stopped', Deverbal Noun <i>átsətsər</i>)				
ndūwul áa-bàhíy			'the pot is broken'	
(cf. <i>à baa sūw ndūwul-áy</i> 'she broke the pot', Gerund <i>bàhíy</i>)				
təmáku nd-áa-d'yáhyahyàm			'the sheep is tied up'	
kàbə nd-áa-ràbakə			'the gown is soaked'	
(cf. <i>à rabə kàbə</i> 'he moistened the gown', Gerund <i>ràbakə</i>)				
tlíwiy tə nd-áa-kàwakə			'the meat (it) is fried'	

³⁵There is one exception to this statement, viz. Continuative clauses using the AUX combination *áa-táa* (5:§2.2.3.2), which can use a Deverbal Noun. These sentences differ both semantically and syntactically from statives, however. Semantically, Continuative refers to continuous action rather than state, and syntactically, the grammatical subject of a transitive verb in the Continuative is the agent of the action whereas in a stative sentence, if the verb is transitive, the grammatical subject will be the semantic object.

³⁶In elicitation, I was given a stative sentence using the gerund of this verb as a second variant, i.e. *təmáku nd-aa-d'əhənəkə* 'the sheep is tied up' (cf. the example below using the Deverbal Noun). For all other examples I elicited, the form with the Deverbal Noun was the only one volunteered if the verb had a Deverbal Noun.

³⁷Although a nominal subject may directly precede a stative predicate, it seems preferable to have a semantic nominal subject in topic position, with the grammatical subject being a pronoun (*tə* 'he'). See sections above for the same structure in other types of non-verbal sentences.

The last three examples have an additional clitic *nd-* preceding the stative. This may be a clitic *ndá* 'just, only' (e.g. *ndá dzáfə bandà tóvəm* 'just men without women'), though it is not clear how this meaning fits here. The last example shows that it is not a pronominal form because a pronoun subject, *tə*, co-occurs with it. The first five examples show that it is not obligatory, and in the frame *mán mar...* 'I found ...', *nd-* does not show up even with the verbs here, i.e. *mán mar təmáku àa-dyahyáhyàn* 'I found the sheep tied up', *mán mar kàb áa-ràbaká* 'I found the gown soaked', *mán mar tliwiy áa-kàwakə* 'I found the meat fried'.

Stative constructions of the form here can only be used as predicates of full clauses, not as attributives ('seated woman', 'fried meat', etc.). The sense of an attributive stative is achieved using a structure similar to a relative clause, e.g. *ám má tségə* 'seated woman' ('woman who [is] seated'). Though this construction uses a Deverbal Noun (cf. the table above), it does not use the stative form with the *éé-* prefix. See 10:§5.1.3 for discussion of attributive statives.

4.7. Presentative sentences ("here is ...", "there is ..."). Presentative sentences corresponding to French *voici* or *voilà*, Hausa *gàa*, etc. use a form of the verb *náy*³⁸ 'see' (usually pronounced [née]—2:§2.2.3.2) plus the Previous Reference deictics *kən*, *ká* (10:§2.1) in the following frames:

náy ... *kən* 'here ... is'
náy ... *ká* 'there ... is'

The floating L tone following *náy* replaces the initial tone of the next word (3:§4).

- (a) *náy gòoróo kən* 'here are some kola nuts'
 (b) *náy ndùwulálàw* 'here are some pots'
 (c) *náy yàwun yíka kà*³⁹ 'there's an elephant (over there)'
 (d) *náy yàwunánàw yíka kà*³⁹ 'there are some elephants (over there)'
 (e) *náy kàn-wan 'íykən kən* 'here's my house (here)'
 (f) *náy kàn náy b'vɛn ká* 'there's your (fs) family's house'
 (g) *náy hám bá mar-wàn ká* 'here's what happened to me'
 here-is thing that get-me PRM
 (h) *néé à kafə-m(a) aa baa wún kón aadúkun-áfə*
 here-is Pf send-us PS father girl PRM place-your (ms)

'here it is, the girl's father has sent us to you' (Hausa: *gà shi, ùban yārinyà ...*)

To stress spatial distance, a presentative sentence may incorporate the locative adverbs *yíkal/yíka* 'there' (as in c, d) or *yíkən/yíkən* 'here' (as in e). Unlike the phrase final *kən/ká*,

³⁸*Náy* looks like the singular imperative form of the verb 'see', but in this construction, it is best considered an unanalyzable word. Semantically, it frequently has nothing to do with "seeing". More important, real imperatives are inflected for plural (5:§2.1.1), but *náy* in presentatives is invariable, e.g. example (g) below is addressed to a group in the text from which it is drawn. Finally, phrase final *kən/ká* are an obligatory part of presentative phrases whereas the verb in the meaning 'see' has no such restriction. As in the case of Miya *nay*, Hausa *gàa* is an invariant word derived from *ganii* 'to see'.

³⁹The L tone on *kà* here may be a mistranscription. I collected these examples early in my research. Elsewhere, including all the examples that I have found in texts, *ká* has H tone.

they are not obligatory. *Kən* generally indicates physical proximity, *ká* indicates physical distance or a non-physical referent, as in (g, h). Note that in (h) the presentative object is an entire proposition.

Another form of presentative occurs in narrative to bring a referent onto the scene, similar to Hausa *sai gaa...* in sentences like *sunàa tàfiyàa sai gaa Gizò* 'they were walking along when here [comes] Gizo'. This has the following form:

{SUBJECT *súw kən(-áy)* }
 {*súw kən(-áy) àa* SUBJECT}

This construction differs from that using *náy* not only pragmatically, but also grammatically. Whereas the *náy* construction is formally an imperative verb, with the presentee being the object of the verb, in the narrative presentative, the presentee is the subject of a clause with *kən* as the predicate (*ká* is not used with this form), translatable as "here". *Súw ... (-áy)* is the Totality construction (see 7:§2 and §§4.1.2., 4.2, 4.3 for use in non-verbal sentences). The presentee (= subject) of this construction may be either preverbal or postverbal (cf. §1.2.1). This construction may also have the subject clitic *də*, seen in the last example below (see 5:§2.2.9, §4.1.2, and other sections above).

dàga makaw mbərgu súw kən-áy 'after a while here [comes] a ram (*mbərgu*)'

dàgéè màkaw Mámman súw kəm 'after a while here [comes] Mamman'

də kiya tívay d-àa báy-tl(a)-áy súw kən-áy àa náy b-àaza
 Sjn take walking *də*-Ipf carry-her-Tot Tot here-Tot PS &Co. father-her

'he started walking carrying her when here [comes] her father and the others'

dàga baa-tlən dəmaa ghaɖuw jíy də súw kən-a àa lakumiy t-aatsákəm
 when go-ICP make wood "then" *də* Tot here-pln PS camel of-bush

'when they had gone to gather wood, then here [comes] a giraffe'

Chapter 12

QUESTIONS, FOCUS, AND TOPICALIZATION

1. Yes/No Questions

Three features play a role in marking an utterance as a yes/no question. (1) The most constant and salient mark of questions is sentence final morpheme *à* or *wà*, which obligatorily terminates both yes/no and word questions (§2). (2) A clitic *g-* appears in non-negative Imperfective verbal questions (5:§2.2.3.3) and some types of non-verbal questions (10:§§4.3-4). The presence of this clitic is neither obligatory in yes/no questions nor restricted to questions, but its distribution is skewed toward yes/no questions and concessive conditionals (14:§2.2). (3) Intonation plays what appears to be a somewhat marginal role in marking yes/no questions.

The choice between the *à* and *wà* variants of the question marker is free, regardless of syntactic and phonological environment. If the last syllable of a sentence ends in a vowel and the *à* variant of the question marker is chosen, the two vowels contract to a single *-a*. In such cases the tone of the first syllable preempts the low tone of the question marker.

shóoshoo à?	'(was it) the rooster?'
tè g-aa zara-za wa?	'will he call her?'
tè g-aa mar-úwsè wa?	'will he get him?'
tòò, dáa-máa yìkà nàa g-áa wàr wa?	'well, formerly there did you (pl) have a festival?'
fà yarda ... mèn nay(a) áakàn-f-a?	'do you agree ... that I see your house?'
fà tla-kú suw nd-à?	'Good morning!' (lit. 'Have you gotten up?')
you (ms) arise-ICP Tot Prt-Q	(a standard greeting)

In negative questions, the question marker elides the final negative marker *-úw* (see 5:§3 for negative verbal sentences and 11:§4 for negatives in non-verbal sentences).

Q: ábý má háa-n(a) à? 'don't you have any water?'
water NEG place-your (pl) Q

A: ábý má háa-ma-w 'we don't have any water'
water NEG place-out-NEG

maa ma bɔɔm ee war a? 'aren't you going to the festival?'
món má baya niy bù-wn á?¹ 'won't I take (it) to my parents?'

¹Note that the question marker bears high tone in the latter two examples. In the first case, the preceding form in isolation would be *bù-wún* 'father-my', with H tone on the second syllable, but with the question marker added, it reduces to a single syllable, with the question marker bearing the high tone. Several similar examples from the same text support this analysis. In the second case, the name *Làbee* (→ *Làbay* before a vowel by regular rule—2:§2.2.3.2) has L tone and thus provides no explanation for the H tone on

fáa má gèsa fiy áatiyrà Laḅay á? 'aren't you going to accept flour from Laḅe?'

Consider the following pairs of statements and corresponding yes/no questions. I elicited the first four to test for intonational differences as well (see below). The tone pattern over the final two syllables is given in the left-hand column. Where two variants were volunteered, both are given in braces, with the first variant on the top.

Tones	Statement	Yes/no question	
...LL	{ Á zàra-za gam. Tè s-áazàra-z-ay.}	Tè g-aa zara-za wa?	{ [He will Will he] call her [·?],
...HH	Tè s-áa már-uws-ay.	Tè g-àa mar-úwsè wà?	{ [He will Will he] get him [·?],
...HL	{ Tè g-aa màrá-zà. Tè s-ámáara-z-ày.}	Tè g-aa mará-zà wa?	{ [He will Will he] get her [·?],
...LH	Tè s-áa zàr-uws-áy.	Tè g-aa zar-uwsə wa?	{ [He will Will he] call him [·?],

In every case, the only variant for the question uses the auxiliary *g-*. In one case, this auxiliary was volunteered for the statement as well ('he will get her'), showing that *g-* is not specifically a question marking auxiliary. In every case, one of the variants or the only variant of the statement uses the Totality construction *s(úw) ... -áy* (7:§2). The Totality construction is mutually exclusive with the auxiliary *g-* and in fact seems to be excluded from yes/no questions in general.² On the other hand, *g-* is mutually exclusive with negation and hence cannot appear in negative yes/no questions, e.g. *món má baya niy b-úwn-á?* 'won't I take it to my father and the others?'

It proved difficult to investigate intonation systematically in the time and with the equipment available. In addition to these temporal and technical limitations, there was a problem in eliciting minimal pairs differing only in intonation. As noted above, the preferred verbal auxiliaries for yes/no questions and corresponding statements tend to be different. The available data suggest that the intonation patterns of yes/no questions and comparable statements differ in two ways: (1) questions raise the overall pitch of the utterance above the speaker's neutral pitch level; (2) if a L tone precedes the last H tone of the question, the H is raised to a level higher than it would be in a statement. A comparison of Figure 1 with Figure 2 illustrates both these intonational features.³ These represent a minimal pair with the exception of the question morpheme *wà* terminating the question in Figure 1. The portion of the question preceding the H tone (i.e. the syllables *tè g-aa ma-*) are about 10-20 Hz higher than the comparable portion of the statement. Note that in the statement, the pitch depressing effect of the voiced obstruent *g-* pulls the vowel down and it maintains about the same level throughout, whereas in the question, the pitch of the

the question marker. The example is transcribed from a poor quality recording, so the exact tones may be obscured. Alternatively, given the context, there could be surprise intonation superimposed.

²In 'HAVE' constructions, I was given variants such as *fàa s-áa mîr wa?* = *fàa g-áa mîr wa?* 'do you have money?', where the first variant appears to include the *s-* of the Totality construction. 'HAVE' sentences use several auxiliaries, including this *s-*, which seem to add little independent meaning (11:§4.3).

³I would like to thank Aaron Shryock for preparing the intonation figures. Aaron prepared the figures by digitizing the tape-recorded utterances, then extracting the F₀ track using the Kay Model 4300 Computer Speech Laboratory in the UCLA Phonetics Laboratory.

corresponding vowel rises back nearly to the initial pitch level. The most striking difference between the two utterances comes at the H tone on the syllable *ra*, where the question raises the pitch not only to a higher level than in the statement (around 240 Hz as opposed to about 210 Hz) but also over a larger range (a change of 60-70 Hz as opposed to about 50 Hz).

Figure 1. Question with a L H L tone pattern

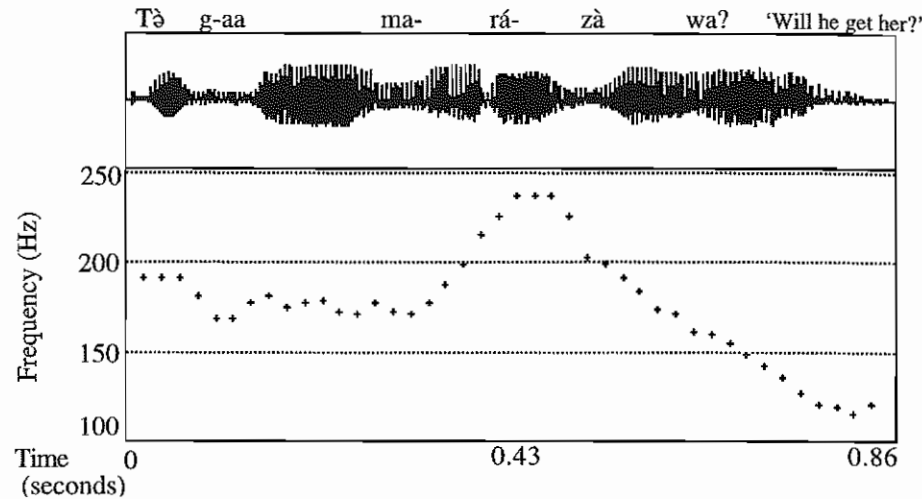
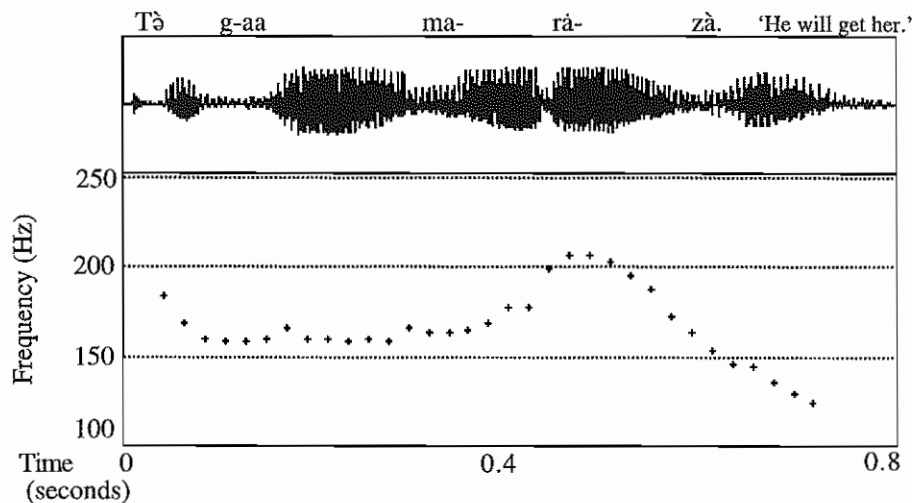


Figure 2. Statement with a L H L tone pattern



Figures 3 and 4, drawn from a recorded narrative text, represent a near minimal tone pair. Both the question and its answer begin on a H tone and have consecutive descending downstepped H's. The only difference is that the statement ends on the H tone final negative marker *-úw* whereas the question ends on the L of the question marker *-à*, which elides the final negative marker. Although the pitch of the initial syllable *á-* is about the

same for both question and statement (155-160 Hz), the question intonation stays in the neighborhood of 150 Hz until the final syllable whereas the statement respects the downward pitch changing effect of the downstepping H's.

Figure 3. Question with a continuous descending tone pattern

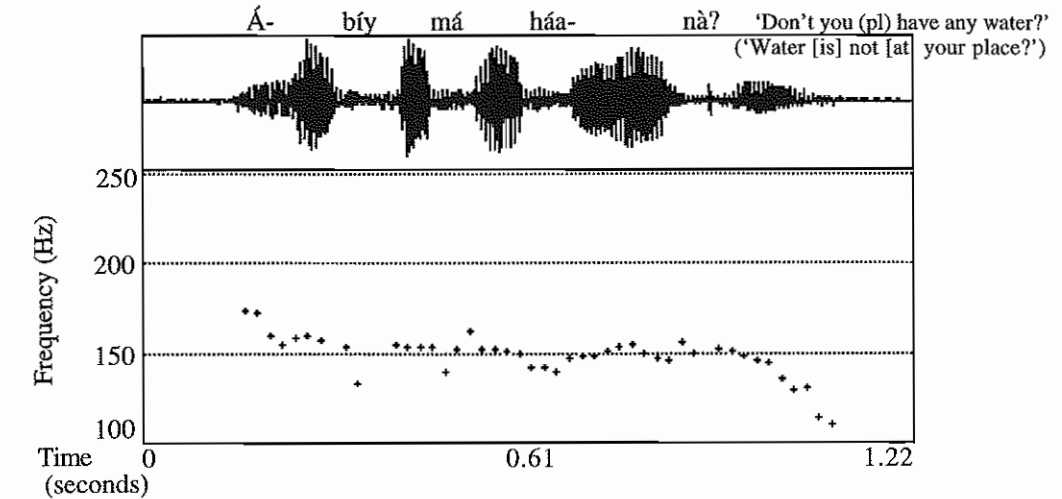
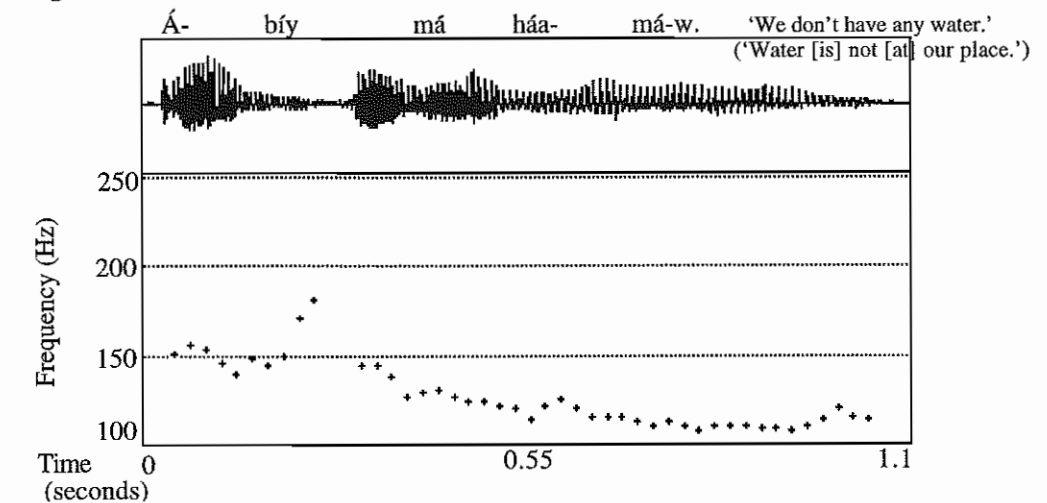


Figure 4. Statement with a continuous descending tone pattern



Figures 5 and 6 illustrate a question and a statement with all L tones. I do not have a true pair with question and corresponding statement for this tone pattern. Nonetheless, the data in these figures support the observations above. Both question and statement in Figures 5 and 6 start at around the same pitch, and both have an overall descending pitch pattern, but up to the last syllable, the question stays well above 150 Hz whereas the statement drops to 150 Hz and below. As in Figure 1, note that even with the pitch

depressing effects of the voiced obstruents in the syllables *g-àa* and *zà* in the question, the pitch of the vowel rises to near the previous level, whereas in the statement, the vowels stay closer to the pitch levels conditioned by the voiced obstruents.

Figure 5. Question with an all L tone pattern

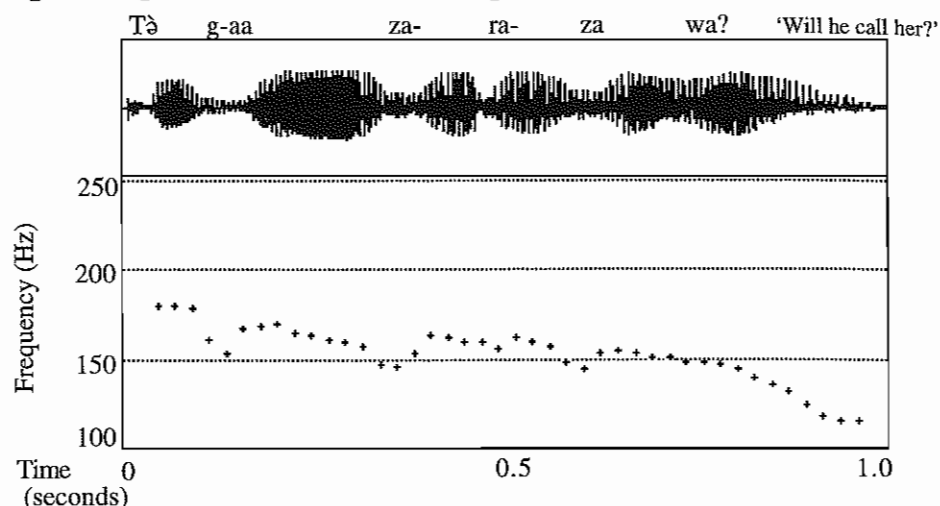
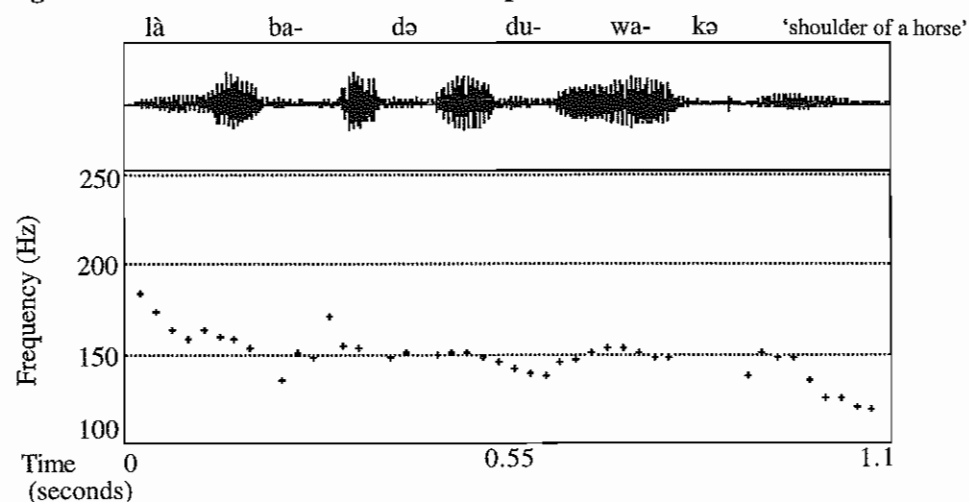


Figure 6. Statement with an all L tone pattern



2. Questioned and Focused Constituents

2.1. General features

2.1.1. Question words and the question marker *à*, *wà*, or *na*. The question words of Miya are as follows:

<i>wàa</i>	'who?'	(subject)
<i>níy wàa</i>	'who (pl), who all?'	(subject)
<i>wèè</i> (→ <i>wèè</i> / H___)	'who?, whom?'	(non-subject; this form is invariably clause final. It absorbs the question marker <i>à</i> .)
<i>màa</i> ⁴	'what?'	
{ <i>wàyna/wèena</i> (m) <i>wàyya</i> (f) <i>wàyniy/wèenyi</i> (pl) }	'which one; which N?'	{ <i>wàyna kwambal-a?</i> 'which stick?' <i>wàyya tlarkáy-a?</i> ⁵ 'which calabash?' <i>wàyniy wútlómiy-a?</i> ⁵ 'which children?'
<i>'yikwa/yíkwa</i>	'where?'	('íy/yí 'place' (8:§6.3) + <i>kwá</i>)
<i>ghájà</i>	'when?'	
<i>wánkwa</i>	'how?'	(<i>wán</i> 'like' + <i>kwá</i>)
<i>màna</i>	'how much, how many?'	{ <i>mír mónà?</i> 'how much money?' <i>cùw mónà</i> 'how many goats?' }
<i>m-áa zày ... = màa dǎ zày ...</i>	'why, what caused ...?'	
<i>éè màa</i>	'why, for what?'	

Constituent questions require the sentence final question marker *à* or *wà*. In questions where the question word is the final word in the sentence, the final vowel of the question word and the question marker are contracted to a single vowel. The question marker occasionally appears as *na*. I found this only in constituent questions.

2.1.2. Questions and focus: shared syntactic features. Miya forms constituent questions and constituent focus in situ, i.e. the questioned or focused constituent occupies the linear position that the corresponding constituent would occupy in a declarative sentence. Constituent questions and constituent focus are pragmatically related in that the answer to a constituent question will have the same syntactic form (same word order, same TAM choice, etc.) as the question, with the word answering the question occupying the same position as the question word. Because constituent questions and constituent focus constructions are syntactically parallel, it is most convenient to discuss them together rather than discuss interrogation as a phenomenon separate from focus. Questioning and focus affect the verbal TAM system in the following ways:

- Perfective and Imperfective have special auxiliaries when *subjects* are questioned or focused (§2.2.1).
- Imperfective uses only the AUX *àa* when *non-subjects* are questioned or focused, i.e. the variants of the Imperfective with additional auxiliaries 5:§§2.2.3.2-5) do not co-occur with questioned or focused non-subjects (§§2.2.2-9).
- TAM choice is restricted in sentences with questioned or focused constituents. When *subjects* are questioned or focused, the only possible TAM's are Perfective and Imperfective. For *non-subjects*, TAM's seem also to be limited to Perfective

⁴*Màa* has no plural **níy màa* 'what all?' corresponding to 'who all?' However, in situations where *màa* requires some form of agreement, it uses plural agreement. Thus, when it is the subject of an intransitive verb, it requires a plural ICP (*-tlón*), e.g. *máa faarà-tlón-à* 'what happened?' This is a general feature of words with generic inanimate reference (8:§2.3.3).

⁵I do not understand why the tone of the question marker *-a* is H here.

and Imperfective for questions, but other TAM's are possible for at least contrastive focus (see §2.2.2 for an example of Conditional Future).

- (d) The Totality construction *súw* ... -áy (7:§2) does not co-occur with questioned or focused constituents.

There is at least one pragmatic function for focus aside from answering a question, viz. *contrastive focus*. Miya can express contrastive focus with a pseudo-cleft construction (see §4), but the regular focus construction used to answer questions can also express contrastive focus. Thus, the syntactic form of the first two examples below, a dialogue between the original settlers of Miya who are arguing about who first arrived on the site, is identical to the syntactic form of the answer in the Q/A pair:⁶

Nákən dúw, "Mən dɔ́ faarà buwáhìy-uwun!" "This one says, "I came first!"
this one Qt I FPF be first coming-ICP

Nákən dúw, "Mən dɔ́ faarà buwáhìy-uwun!" "[Then] this one says, "I came first!"
this one Qt I FPF be first coming-ICP

Q: Wàa dɔ́ zàra-tlón-à? 'Who called them?'
who FPF call-them-Q

A: Mən dɔ́ zàra-tlón. 'I called them.'
I FPF call-them

Contrastive focus does differ from focus in answer to questions in that contrastive focus seems not to be subject to restrictions (c) and (d) above. Restrictions (a-d) apply without exception to constituent *questions*, and because answers to questions use syntax parallel to the question, restrictions (a-d) apply to focus constructions which are answers to questions. Restriction (a) applies to sentences with contrastive focus of a subject—the special subject focus auxiliaries are the only way to mark subject focus of any kind—and I have found no Imperfective auxiliaries other than *àa* in contrastive focus constructions of non-subjects. However, I have found textual examples of contrastive focus in clauses with TAM's other than Perfective or Imperfective and in clauses with the Totality construction. The first example below is in the Conditional Future (5:§2.2.5), and the second is in the Subjunctive (5:§2.2.1). The latter also includes the Totality -áy.

kóowèena cán-eekì á kaf-ùwun mən 'whatever the mission they would send ME'
whatever work-ever Ft send-me me

Jòojin ázùkwá Masanga, tòò, dè tsá-ya gwàlfə t-áy
Jojin uncle Masanga well Sjn give-him chiefship him-Tot

'Jojin the uncle of Masanga, well, they gave HIM the chieftainship'

2.2. Questions and focus in verbal clauses

2.2.1. Subjects.

Questioned and focused subjects require special TAM's. It is the TAM which shows that a subject is focused—there are no word order differences or other

⁶See also the last Perfective example and the last four Imperfective examples in §2.2.1 and several other examples in sections below for cases of contrastive focus.

overt markers distinguishing neutral sentences from those with a focused subject.⁷ In the Perfective, the AUX for Q/F subjects is *áa* or *dɔ́* (5:§2.2.2). These seem to be completely interchangeable and are of about equally frequent occurrence. In the Imperfective, the AUX for Q/F subjects is *jíy* rather than the general Imperfective AUX *àa*.

Perfective

Q: w-áa⁸ bəsaw-a? = wàa dɔ́ bəsaw-a? 'who washed (it)?'

A: t-áa bəsaw = tɔ́ dɔ́ bəsaw 'HE washed (it)'

Q: w-áa zàra-tlón-à? = wàa dɔ́ zàra-tlón-à? 'who called them'

A: mən áa zàra-tlón = mən dɔ́ zàra-tlón 'I called them'

Q: w-áa díy-ùws-a? = wàa dɔ́ díy-ùws-a? 'who followed him?'

A: Ndùwya dɔ́ díy-ùwsə 'NDUYA followed him'

Q: m-áa mbyára kábə taf-a? 'what tore your gown?'

A: ghàduw dɔ́ mbyára-zà 'WOOD tore it'

màa dɔ́ kəmaya-tlón-à? 'what spoiled?' (cf. fn. 4 for plural ICP)

níy wàa dɔ́ dzàra-tlón-a? 'who (pl) dispersed?'

wèena jirkú də buwya wa? 'which monkey sustained a fracture?'

wàyya dɔ́ ɓaa-z(a) à? 'which one (f) broke?'

Kásham aa ghàr-uwsə = Kásham dɔ́ ghàr-uwsə 'KASHAM grew old'

tám mà *Labe* dɔ́ *díya-w*, tɔ́ má tá-w 'if LABE doesn't cook, he won't eat'
if NEG Labe FPF cook-NEG he NEG eat-NEG

There are two points of interest in the last example, from a text. First, the clause with the focused constituent (italicized) is negative. The pre-subject position of the first negative marker, *má*, shows that it is the entire clause which is negated, not just the verb phrase, i.e. a more literal translation would be '(if) it is not that LABE cooks...'. Second, the focused subject clause is a conditional clause. Subjects in conditional clauses are normally postverbal (11:§1.2.1.2.2), but the requirement that a focused subject be preverbal overrides the normal ordering.

Imperfective

Q: wàa jíy zàr-uws-a? 'who will call him?'

A: mən jíy zàr-uwsə 'I will call him'

A: Kásham jíy zàr-uwsə 'KASHAM will call him'

Q: níy wàa jíy kənà tlíwìy-a? 'who (pl) will buy meat?'

A: mìy jíy kənà tlíwìy 'WE will buy meat'

⁷This statement holds only for sentences with preverbal subjects. When subjects are in postverbal position, no constituent can be in focus. See 11:§1.2 for position of subjects and esp. 11:§1.2.1.3 for discussion of order of subjects and focus.

⁸The AUX *áa* contracts with the vowel of *wáa* 'who?' (or any other preceding vowel), and its tone preempts the preceding tone.

Q: màa jíy mbyará kàbè taf-a? 'what will tear your gown?'
 A: ghàduw jíy mbyará kàbè tuwun 'WOOD will tear my gown'

àa 'iyká ghàrahoo niyza jíy kónà hám ba gaara
 thereupon old ones her Plpf buy things for wedding gifts
 'thereupon HER PARENTS buy things for wedding gifts'

kóowèeni báa nguw-eekì tē jíy gəs(a) aatsótsalíy tē niy aanguw h-úwsə
 every possessor ward-every he Plpf gather taxes of &Co. ward his
 'every ward head, HE collects the taxes for the people of his ward'

Átukusəm gam, màa jíy dəma-n wánkən wa?!
 hedgehog Top you (fs) Plpf do-to me thus Q
 'Hedgehog, is it YOU who are doing this to me?!'

M: Dùw, "Mən aa doona ázürfa t-aakən-ghəm." 'He said, "I want your silver ring."
 Qt I Plpf seek silver of-hand-your (fs)

L: Dùw, "Á'a, fàa jíy tsà-n tafə." 'She said, "Hey, YOU give me YOURS."
 Qt hey you (ms) Plpf give-me yours

2.2.2. Direct and indirect objects. Questioned and focused direct or indirect objects always appear at the end of the clause. When a pronominal object is in focus, it appears as a normal clitic to the verb (5:§§4.2-3) followed by a sentence final copy in the form of an independent pronoun. Nominal objects in focus have no overt marking. Rather, it is the *absence* of the Totality construction *súw...-áy* (invariably used in translations of neutral declarative sentences in the Perfective and Future) which shows an object to be in focus:

PERFECTIVE: à már suw zhàak-áy (no focus) 'he got a donkey'
 à már zhàakə (focus) 'he got a DONKEY'
 IMPERFECTIVE: tē s-áa bətá mbərgw-áy (no focus) 'he will untie the ram'
 t-àa bətá mbərgu (focus) 'he will untie the RAM'

In elicitation, speakers usually volunteer sentences without the Totality construction when they contain nominal objects (7:§2.2), especially in the Perfective. This is the case even where nothing in the elicitation context suggests object focus. I interpret this as being a result of the universal tendency to introduce new discourse referents as objects (Dubois 1985). Because of this tendency in discourse, speakers sense that nominal objects have inherent pragmatic focus, though the grammaticality of the first sentence in each pair above shows that this is not a syntactic requirement. The Totality construction *never* appears when an object is questioned or when the context of a sentence presented for translation shows that the object is focused. In short, an object in a sentence without the Totality construction seems always to bear some sort of focus, which may range from a tendency to draw attention to nominal objects as new referents to strong contrastive focus.

Perfective

Q: à tabəna wēe? 'who did he abuse?'
 A: à tabəna-wan mən 'he abused ME'
 A: à tabəna-tla njə 'he abused HER'

A: à tabəna-na hən 'he abused YOU (pl)'
 A: à tabəna Ndúwya 'he abused NDUYA'
 Q: à táfə màa?⁹ 'what did he shoot?'
 A: à táfə-yà tíy 'he shot HIM'
 Q: fà tsa-yá màa? 'what did you give him?'
 A: mən tsà-yá mìn 'I gave him MONEY'
 Q: fà rabə máa? 'what did you get wet?'
 A: mən ràbə-yá tíy 'I got HIM wet'
 Q: fà tsaa mìn wēe 'who did you give money to?'
 A: mən tsà-fə fíy 'I gave (it) to YOU (ms)'
 A: mən tsàa yásu-wan 'I gave (it) to MY BROTHER'
 Q: Ndúwya kəna tlíwíy wēe? 'who did Nduwya buy meat for?'
 A: à kəna-ma tlíwíy míy 'he bought meat for US'
 Q: fà kəna wáyya tlərkáy-a? 'which calabash did you buy?'
 A: mən kəna takən? 'I bought THIS ONE'
 Q: fà kəna taabórma mənna? 'how many mats did you buy?'
 A: mən kəna kídi 'I bought THREE'

Imperfective

Q: Ndúwy(a) aa gəra-fə wēe? 'who will Nduya show to you?'
 A: Ndúwy(a) aa gəra-n malvó 'Nduya will show me THE CHIEF'
 Q: fíy aa kwíya màa? 'what will you catch?'
 A: mən aa kwíyaa kyàdi 'I will catch a GIANT RAT'
 Q: fíy aa tsàkà wēe? 'who will you accompany?'
 A: mən aa tsàkà-fə fíy 'I will accompany YOU'

Conditional Future: TAM's other than Perfective and Imperfective are not common in sentences with questioned or focused constituents—other TAM's would be excluded in sentences with questioned or focused *subjects*, where special TAM's are required. However, other TAM's are not ungrammatical when non-subjects are questioned or focused. I found the following example of Conditional Future (5:§2.2.5) with contrastively focused object in a text:

kóowèena cán-eekiy á kafù-wun mən
 any work-any Ft send-me me
 'no matter what the job, they would send ME'

⁹The tones of the question word *màa* and the pronoun answers to it (*tíy*, etc.) give the impression that the question word and the pronoun have tone polar to the preceding syllable. This polar effect is accounted for by the fact that the words in question all bear underlying L tone and are raised after L by LOW RAISING, which raises a L syllable after L if the potentially raised syllable does not begin in a voiced obstruent (3:§3.4). A similar account may apply to *wēe* vs. *wēe* 'who?', though this word is idiosyncratic in bearing a contour tone, implying that there are two tonal domains in a single syllable. Contour tones are rare in Miya.

2.2.3. Locatives. Questioned or focused locatives follow the verb and any objects (direct or indirect). As with objects, *absence* of the Totality construction *súw...-áy* indicates focus of a locative. There does not seem to be as strong a tendency for speakers to omit Totality in elicited sentences containing locatives as for sentences containing objects (see discussion at the beginning of §2.2.2). In translating the question and answer pairs below, Vaziya did not use the Totality in either case, but in the isolated sentence without context, his first translation used the Totality construction.¹⁰

- Neutral:** míy zà-ma s-áakan hà Róoy-ay 'we entered Roya's house'
 we enter-ICP Tot-house of Roya-Tot
- Q:** nà za-k(a) aakán hà wèe? 'whose house did you (pl) enter?'
 you (pl) enter-ICP house of who
- A:** míy zà-m(a) aakán hà Róoyà 'we entered ROYA'S HOUSE'
 we enter-ICP house of Roya

Following are further examples of locative questions and focus. Examples comprise directional, stationary, and source. Note that in sentences which also contain objects, it is not possible to tell whether the object or the locative is focused without context, e.g. in answer to a questioned locative.

- Q:** fíy aa ba-f(iy) yíkwa? 'where are you (ms) going?'
A: mèn aa b-awn áakáasùw 'I am going TO THE MARKET'
- Q:** 'íy var 'íykwa? 'where did the dog run to?'
A: à vár àalóm 'he ran (in)TO THE HUT'
- Q:** fà tsəga-ku 'íykwa? 'where did you (ms) sit?'
A: món tsəga-wan aagháma tàkən 'I sat ON A CHAIR'
- Q:** wùtləmíy aa pá ghàma-tlón yíkwa? 'where will the children gather?'
 children Ipf pour head-their where
- A:** tlèn aa pá ghàma-tlón àafiyliy 'they will gather IN THE OPEN AREA'
- Q:** fà bə-kw áa 'íykwa? 'where did you come from?'
A: món bù-wán aaKànóo 'I came FROM KANO'
- Q:** fà 'ár àawíhiy d'óo màa? 'what did you put the stuff in?'
A: món 'ár d'òo tləkáy 'I put it IN A CALABASH'

2.2.4. Instruments. Instrumental questions and focus use the normal instrumental preposition *àa* 'with' (11:§1.5). The questioned or focused instrumental phrase follows objects, and as with other questions, the Totality construction is absent.

- Q:** fà d'əhən tàabərma naf aa màa? 'what did you bind your mat with?'
A: món d'əhən aa kàrafə 'I bound (it) WITH PALM FRONDS'

¹⁰These examples obviously do not involve locatives in the sense of questioning and focusing the location ('where did you enter?', 'I entered THE HOUSE', etc.). Rather they question a genitive within a locative phrase (see §2.2.9 for questioned genitives). However, because the question word is embedded within the locative phrase, the examples illustrate the points at hand, viz. the position of the locative in a question and the presence or absence of Totality.

- Q:** fíy áa halà kán-f-a àa maa? 'what will you screen your house with?'
 you Ipf screen house-your-pln with what
- A:** mèn aa hálà kán-wàn-áa àa gəgafə 'I will screen my house WITH A ZANA-MAT'

2.2.5. Comitatives. Comitative questions and focus use the normal comitative prepositions 'ənáa' or 'áfáa' 'with' (11:§1.6). Questioned or focused comitatives follow objects and locatives, and as with other questions, the Totality construction is absent.

- Q:** nà ba-k(a) áaKànóo 'ənáa wèe? 'who did you (pl) go to Kano with?'
A: míy ba-má 'ənáa gyàm-aama 'we went WITH OUR FRIEND'
- Q:** fà sáabà 'ənáa wèe? 'who are you (ms) familiar with?'
A: món saabà 'ənáa Ndùwya 'I am familiar WITH NDUYA'

2.2.6. Manner. Manner is questioned using either *wánkwa* ('like' + Q) or *kùkwa*. I found the latter only in greeting phrases such as those illustrated below. *Wánkwa* was the form used in other contexts to translate Hausa *yàayàa*, and *kùkwa* was rejected where I volunteered it.

- Q:** fà kwíy zhàakə wánkwa? 'how did you catch the donkey?'
A: món kwíy-tlà kwíy(a) aa àa wuya 'I caught it WITH DIFFICULTY'
 I catch-it catching pln with difficulty
- à 'əsə-tà wánkwa? 'how did he become sated?'
- Q:** Fà tla-fə kùkwa? "Good morning." ('How did you (ms) arise?')
A: Ndó laafiyà. "Just fine." ('Just health.')
- Q:** N-àa tiyaa múku kùkwa? "Good afternoon." ('How are you (pl) beating the sun?')
A: Ndó laafiyà. "Just fine." ('Just health.')

2.2.7. Time. Time is questioned with *ghájà* 'when?'. The time question word is not placed sentence initial even though temporal adverbs are fairly freely fronted in neutral sentences.

- Q:** à náy-fə ghájà? 'when did he see you (ms)?'
A: à náy-wàn bəná 'he saw me YESTERDAY'
- à ghar-ta ghájà? 'when did he grow old?'

2.2.8. Purpose or reason. Miya questions purpose or reason in either of two ways. (1) One way begins the sentence with a phrase *m-áa zày ...* or *màa d'ə zày ...* meaning literally 'what caused ...?', followed by a normal complement clause to *zay* 'cause' (13:§2.2). The questioned word in this type of phrase is the subject of the verb *zay*. These questions and answers thus follow the syntax of questioned and focused subject (§2.2.1). (2) The second way to question purpose or reason is a phrase *éé màa* 'for what?' *Éé* literally means 'place (of)'—see 8:§6.3.

- Q:** m-áa zày faa kəna wa? 'why did you buy (it)?'
A: ádamaa mèn dad'əma wíyhi tuwun 'in order that I repair my stuff'

màa dǎ zà y ma bə-kóm m-ée wár-uw-à?
 what FPF cause you (fs) come-ICP NEG-place of festival-NEG-Q

'why didn't you come to the festival?'

Q: fà bu-kw ée màa?

'why did you (ms) come?'

A: ée róma tliwiy

'in order to eat meat'

mà gəs ée màa?

'why did you (fs) accept (it)?'

2.2.9. Genitive. I have only three examples of question words as *nomen regens* in genitive constructions, each illustrating a different type of genitive. The first example below illustrates the *linked genitive* (10:§3.3.1), the second is a *direct genitive* (10:§3.1.1), and the third is a *locative genitive* (10:§3.3.3). These are the types of genitive constructions that we would predict were the *nomen regens* a noun in each case (cf. *sən n-aaGituwà* 'person of Gituwa', *ácána shim* 'farm work', *àakán hà Kasham* 'Kasham's house'). This shows that in genitive constructions, question words behave like nouns. The noun phrase containing the question word likewise behaves like other noun phrases in the respective functions (the examples below respectively illustrate the predicate of an equational sentence, a direct object, and a locative goal).

fíy sǎn na yíkwa?
 you person of where

'where are you from?'

à dǎm aacána màa?

'what kind of work (work of what) did he do?'

nà za-k(a) aakán hà wêe?

'whose compound did you (pl) enter?'

2.2.10. Verb and auxiliary focus. Sections §2.2.1-9 discuss questioning and focusing of noun phrase constituents in verbal clauses. In principle, it should be possible to focus the verb itself ('he BOUGHT the ram') and also the TAM ('he WILL buy the ram'). In 7:§5.2 I tentatively suggest that cognate complements are one means of focusing a verb, or, properly speaking, a verb phrase. Another method of focusing a verb or verb phrase would be pseudo-clefting ('buying a ram is what he did'), but I have no elicited or textual examples to illustrate this—see §4 for discussion of pseudo-clefts. In 7:§2.2 I suggest, also tentatively, that the Totality construction focuses the TAM. See the respective sections for discussion.

2.3. Questions and focus syntax in non-verbal clauses. As in verbal clauses, questioned or focused constituents in non-verbal clauses are in situ. All non-verbal clause types which can have questioned or focused¹¹ constituents share one feature, viz. when a subject is questioned or focused, the predicate must be introduced by the auxiliary *j(iy)*, also required when subjects of Imperfective verbal clauses are questioned or focused

¹¹Among clauses categorized here as non-verbal, existential clauses (11:§4.4) and presentative clauses (11:§4.7) would not normally admit questioned constituents. The noun phrase which an existential or presentative clause introduces bears inherent pragmatic focus, so a syntactically marked distinction between a neutral vs. focus reading would not be expected (cf. remark in 11:§4.4 on the use of *jíy* as a neutral auxiliary in existential sentences). I did not collect examples of questioned or focused constituents in sentences with adjectival or stative predicates (11:§§4.2, 4.6). Presumably they would behave similarly to the parallel equational sentences. One of the examples in §2.3.1.1 has a formal adjective as predicate (*tə jíy gǎbana naatlón*), though the adjective is used as a substantive in that example.

(§2.2.1). When a predicate constituent of a non-verbal clause is questioned or focused, in most cases, the clausal structure is like that of a declarative clause of the same type (11:§4).

2.3.1. Equational and identificational sentences. In equational constituent questions, it is not always obvious in English (and many other languages) whether the question word is subject or predicate. I will assume, on universal semantic grounds, that when the set membership of a definite noun phrase is questioned, the question word is the predicate, e.g. in *who is Bill?* we are asking for something to be predicated of Bill, e.g. *Bill is the president* or that *Bill is a man with green hair*. When the question word is equated to an indefinite noun phrase, the strongest (perhaps the only) reading is for the question word to be the subject, e.g. in *who is president?* we are asking about whom "being president" can be predicated. In Miya, these semantic observations about which constituent is to be interpreted as subject and which is predicate are borne out in the syntax.¹²

2.3.1.1. Questioned or focused subject in equational sentences. When the subject is questioned or focused, the structure is as follows:

SUBJECT *jíy* PREDICATE

The focused subject marker may optionally be preceded by the subject marking auxiliary *də*, as in the last example immediately below (cf. 5:§2.2.9, 11:§4.1.2).

Q: wàa jíy malv-áa, {Ndúwy-a kóo Rǒoy-a}?, 'who was chief, {Nduya or Roya }?',
 {fíy wa koo tíy wá }?

A: { Rǒoya } jíy malvǎ {dǎ maa Ndúwya-w}, { Rǒya is } chief (not { Nduya }),
 { mǎn } { I am }

nákən wár kən tə jíy war naamaa gǎrná 'that festival, IT is our great festival'
 that festival Top it Foc festival our great

tə jíy gǎbana naatlón 'HE was the most subordinate about them'
 he Foc small of them

tíy mǎy-dzǎhə jíy tǎy 'he, A MIYA MAN is what he is'
 he Miya-male Foc he

mǎn jíy malvǎ naa wutlə bǎzam aDáyà 'I was leader of the youth at Daya'

tǎ dǎ jíy malvǎ 'HE was chief'

It is possible to have an equational sentence where the predicate is questioned, yet the sentence structure has subject focus syntax. I found only one example of this, in the following dialogue from text:

¹²Although word order in English does not reveal whether *who* is subject or predicate in questions like *who is Bill?* vs. *who is president?* there are tests. In the first, *who* must be the predicate (fronted, with inversion of BE and the subject, *Bill*) because in a question like *who could Bill be?* we see that *Bill* occupies the normal subject position, followed by the main verb. Applying the same test to the other sentence, we get *who could be president?* with *who* in the subject position.

- G: ... nàa g-áa wàr wà? '... do you (pl) have a festival?'
 M: À, míy mìy g-áa wàr. 'Yes, we, we have a festival.'
 G: Wàr naná jfý màa? 'What is your festival?'

The most natural English translation puts stress on the verb rather than either noun phrase, i.e. 'What IS your festival?' There is no verb in Miya, of course, but the presence of *jfý* seems to have this function. It may therefore be that *jfý* has a wider function than marking only subject focus. (Cf. the use of *jfý* in sentences with a name as predicate, where there does not seem to be focus on the subject—11:§4.1.3.)

2.3.1.2. Questioned or focused predicate in equational and identificational sentences. There are two ways for the predicate of an equational sentence to be questioned or focused. The syntactically simpler way is juxtaposition of SUBJECT - PREDICATE, as in a neutral equational sentence:

- Q: tó màa? 'what is it?'
 A: tó máku 'it's a SHEEP'

- Q: { Ndùwya } mìy-dzəhə wá koo wiyahón-dzəhə wà?
 ffy
 A: { tíf } mìy-dzəhə (də maa wiyahón dzəh-úw)
 mán

- Q: ' { is Nduya } a Miya or a Hausa?'
 are you
 A: ' { he is } a MIYA (not a Hausa)'
 I am

The second way to question or focus the predicate of an equational sentence makes use of identificational sentence structure. Identificational sentences usually take a structure PREDICATE + *jiká* (or less commonly, *jikán*), where *jiká* could be translated 'it is' (Hausa *kèe nan* as in *Audù kèe nan* 'it's [just] Audu').¹³ This itself is a focus construction, probably explained by the inherent pragmatic focus that the predicate of an identificational sentence would always bear (cf. fn. 11). Questioning of the predicate of identificational sentences and answering those questions use this pattern.¹⁴

- Q: Ndùwya jika-á? 'is it Nduya?'
 A: Ndùwya jiká 'it's Nduya'
 Q: wàa jiká ná?¹⁵ 'who is it?'
 A: Ndùwya jiká 'it's Nduya'

¹³*Jiká* and *jikán* may originally have been a combination of the *jfý* subject focus marker (see above) plus the Previous Reference Marker *ká* or *kən* (9:§2.1). However, it now seems to behave as a syntactic unit. I have usually transcribed the first syllable with a short vowel, whereas *jfý* always has a clear long vocalic nucleus. Moreover, *jiká* does not behave tonally as the combination of *jfý* + *ká* would. *Jiká* has the pattern L H after L but H H (two consecutive downstepped H's) after H. *Jfý* and *ká* both bear H in all contexts.

¹⁴There is an implication here that in identificational sentences, it is always the predicate which is questioned or focused. The test for English in fn. 12 shows that this is the case. Thus, in the question *who could it be?* the expletive subject *it* is in normal subject position, following inversion with the auxiliary verb.

¹⁵The question marker here has the variant *na*, mentioned in §2.1.1.

- A: mən jiká 'it's me'
 A: fíy jiká 'it's you (ms)'

wàshashan-fə mánà jìykən àa¹⁶ buwáhiyà-fə 'íykən-a?
 years-you how many it is with coming-your here-Q
 'how many years is it since you came here?'

... ée míy ee d-àa bíy sèna [bá dadèe jiká Míya]
 in order we AUX d-Ípf Prt know one who endure it is (at) Miya
 "... in order that we know [who it is who spent (the longest) time at Miya]

Focus of the predicate in an equational sentence can be achieved by recasting the sentence as an identificational sentence with a topicalized subject, as follows:

- Q: { Ndùwya } wàa jiká nà? { 'who is Nduya?' }
 ffy { 'who are you (ms)?' }
 A: { Ndùwya } mìy-dzəhə { 'Nduya is' }
 mán { 'I am' } a Miya man'
 Q: màa jiká ná? 'what is it?'
 A: nàkən kyádi jiká 'it's a giant rat'

In the questions here, there is no overt marker showing that *Ndùwya*, *ffy*, or *kyádi* are topics (cf. §5), but this is the only coherent analysis, assuming that *wàa* 'who?' and *màa* 'what?' are the predicates for reasons given above (cf. also fn. 14). Note that the answer to the first question uses simple SUBJECT - PREDICATE juxtaposition. As seen at the beginning of this section, this is a possible structure when the predicate is in focus, as it should be here, in answer to *wàa*.

2.3.2. 'HAVE' sentences. 'HAVE' sentences with questioned or focused subjects require the auxiliary *jfý*. 'HAVE' sentences with questioned or focused objects use no auxiliary at all. See 11:§4.3 for the basic structure of 'HAVE' sentences.

Q/F subjects

- Q: wàa j-áa dùwakə tsór-à? 'who has two horses?'
 A: Ndùwya j-áa dùwakə tsór 'NDUYA has two horses'
 A: mən j-áa dùwakə tsór 'I have two horses'
 fàa j-áa mìr wà? 'is it YOU who has money?'
 (translates Hausa *kai kè dà kud'ii?*)

Q/F objects

- Q: Ndùwya t-áa màa? 'what does Nduya have?'
 A: Ndùwy-áa àa mootá 'Nduya has a car'
 Nduya-pln with car

¹⁶This gloss for *àa* may be incorrect. Another analysis is that *àa* is the Postposed Subject marker (11:§1.2.1), i.e. *bùwáhiyà-fə 'íykən* 'your coming here' is the subject of the sentence and the sentence means, rather literally, 'your coming here [equates to] how many years?' (Hausa: *zuwanka nan shekara nawa ke nen?*). A similar case of an equational sentence with postposed subject is mentioned in fn. 17.

2.3.3. Locative sentences. Locative sentences with questioned or focused subjects require the auxiliary *jíy*. Locative sentences with questioned or focused location use no auxiliary at all. See 11:§4.5 for the basic structure of locative sentences.

Q/F subjects

- Q: wàa j-áalóm-a? 'who is [in] the hut?'
 A: yàsu-wan j-áalòm 'MY YOUNGER BROTHER is [in] the hut'
 Q: màa j-áakyar lóm-a? 'what is behind the hut?'
 A: zàkiy j-áakyar lóm 'A STONE is behind the hut'

Q/F locations

- Q: hón yíkwa? 'where are you (pl)?'
 A: míy dáhə 'we are inside'
 Q: Ndùwya 'íykwa? 'where is Nduya?'
 A: t-àakáasùw 'he is at the market'
 Q: zùw ká tə d'óo màa? 'what is the sorghum in?'
 A: zùw ká t-àakwakwi 'the sorghum is in the granary'

3. Echo and Rhetorical Questions

I did not elicit data on echo or rhetorical questions. The examples below appear in texts. They show that such questions are syntactically like their non-echo/rhetorical counterparts in terms of word order, sentence final interrogative marker *-à/wà*, and, in the case of the first example, special auxiliary for subject questions. There may be some special intonational features. In the second example, transcribed from a poor quality recording, I hear a falling tone on the question marker *wà*, whereas it would normally have L tone. However, the other examples show no obvious intonational differences from normal questions insofar as other data on question intonation is available for comparison (§1).

- X: M-áa marà-na, làkúmiy? 'What happened to you (pl), camel?'
 what-FPf get-you (pl) camel
 Y: M-áa mar-àam-a?! Née hàmbá mar-àama ká! 'What happened to us?! Here's what happened to us!'

[A girl has come and asked a chief's wife if she (the girl) can help in carrying her (the wife's) water. The wife wants no help and speaks as follows, ending with a rhetorical question.]

- Tà-kəm 'íyká! Mən má 'ár-ɣɣm-uw. À bəl-ɣɣm ka mən aa-táa ddonə wutlə wá?!
 go-ICP there I NEG put-to you-NEG Pf tell-you PRM I Ct seek child Q
 'Go away! I won't put (the water) on you. Did someone tell you I wanted a servant?!

[A giraffe has asked a girl to give him some figs, but she refuses. She responds to his question with a negative rhetorical question.]

- Giraffe: Á! Mǎa də má n-àa tsá-n-a?
 oh you (fs) də NEG AUX-Ipf give-me-Q

- Girl: Á'á! Mǎn má kwaa baya niy b-ùwun 'onáa m-ùwn-á?!
 hey I NEG lack carry &Co. father-my and mother-my-Q

Giraffe: 'Oh! Won't you give me some (figs)?'

Girl: 'Hey! Wouldn't I [then] fail to take (them) to my mother and father?!

4. Focus by Pseudo-clefting

The normal method of pragmatic focus in Miya, as in answer to constituent questions, is to use the same syntactic structures as in asking constituent questions (§2). Contrastive focus can be achieved in the same way (see the subsections of §2 for examples of both pragmatic and contrastive focus). Another means for showing contrastive focus is the pseudo-cleft construction. The canonical structure for a pseudo-cleft is a sentence where the referent to be focused is the subject of an equational sentence and the predicate of the sentence is a noun phrase containing a relative clause which predicates the relevant information of the subject. This is illustrated by the English sentence in (a). It is also possible to reverse the order, making the relative construction the subject and the focused referent the predicate, as in (b):

- (a) [Neil Armstrong]_{FOCUS} was [the man who first stepped on the moon]_{RELATIVE}
 (b) [The man who first stepped on the moon]_{RELATIVE} was [Neil Armstrong]_{FOCUS}

Miya uses pseudo-clefts in both these configurations in a way pragmatically similar to English. I did not elicit any pseudo-cleft constructions, but there are enough examples from texts to illustrate the basic structures. As expected, Miya pseudo-clefts always have the form of an equational sentence, and the grammatical subject, whether configuration (a) or (b) is always focused, as shown by the auxiliary *jíy* (§2.3.1.1). I have listed examples by the role the focused referent plays in the proposition predicated of it.

Subject

(a) Focused referent in subject position

mən jíy baa də ra-tlón aa wəshasham
 I Foc one who Pf exceed-them with years

'I am the one who has spent longer than (any of) them'

tə jíy bá na d-àa bíy ghəm-uws aaghama zuw àa bá wár ka¹⁷
 he Foc one who AUX də-Ipf Prt climb-ICP on top sorghum PS leader festival PRM
 'it's the leader of the festival who will climb upon the sorghum'

(b) Relative construction in subject position

bá faarà bíyak àabíy jíy Gwàrama
 one who be first dig out water Foc Gwarama

'the one who first dug out water was Gwarama'

¹⁷The subject of this example is postverbal (11:§1.2.1). This in itself is unusual, because postverbal subjects are generally found only in verbal clauses. The structure is particularly unusual here because focused subjects must be in *preverbal* position (11:§1.2.1.3). Structurally, the focused subject in this sentence is the pronoun *tə*, and the postverbal nominal subject is more like a topic. Cf. fn. 16 for a possible similar case.

báa dè b-úwsə nà fàrkoo jíy sɔ́n n-áaMángilà
 one who dè come-ICP of first Foc man of-Mangila

'the one who came first was the man of Mangila'

Direct object

tè jíy ba faarà zahiya-yá gwalfó ta Miyà
 he foc one who do first make into-him leadership of Miya

'he was the one who was first made the leader of Miya'

Indirect object

tè jíy bá na d-àa bíy tsa-yà gwalfó
 he Foc one who Aux dè-Ipf Prt give-him leadership

'he's the one to whom they gave the leadership'

Genitive

náka sɔ́n ka tè jíy bá tɔ́ d-aa wàr aakóm-asə
 this man PRM he Foc one who he dè-HAVE festival hand-his

'this man, he is the one in whose hands the festival is'

A way of focusing similar to pseudo-clefting and perhaps textually more common is to use a topicalized noun phrase (§5) to set up an informational context for the focus, then to have a main clause with the subject focused in the normal way (§2.2.1), e.g.

(c) [As for exploring the moon,]_{TOPIC} [NEIL ARMSTRONG]_{FOC SUBJECT} stepped there first.

Thus, although regular subject focus and pseudo-clefting are syntactically distinct, there is a fuzzy pragmatic division in the contexts for their use. Only the subject focus construction would be pragmatically available in response to a constituent question involving the subject (§2.2.1), whereas pseudo-cleft seems like the only felicitous structure in a case like the first Subject example above (a "(c)"-type rewording equating to *as for years, I exceed them* seems inappropriate). However, in examples like those below, which have a (c)-type structure, a pseudo-cleft variant of type (a) or (b), suggested by the parenthesized English translation, would seem to work as well as the recorded sentence.

Báa dè dɔ́ma wár-a àadam-uwsə ká tè jíy zàb(a) aazábə 'ənáa tɔ́vam niywasə
 one dè do festival for-him PRM he Foc dance dancing with wives his
 who -pln

'The one for whom the festival is performed, HE will dance with his wives.'

(? = 'The one for whom the festival is performed is the one who will dance with his wives.')

Mùkwa ná d-àa sáa tál ka, á buway zùw múku taka,
 day that AUX dè-Ipf drink beer PRM Ft bring sorghum day that

wùtlə bazam 'ənáa wùtlə tɔ́vam jíy buway zùw ká.
 children males and children females Foc bring sorghum PRM

'On the day that one will drink beer, one will bring sorghum on that day, THE YOUNG MEN AND YOUNG WOMEN will bring the sorghum.'

(? = 'The young men and women are the ones who will bring sorghum on the day beer will be drunk.')

5. Topics

By "topic", I mean a referent mentioned in sentence initial position, followed by some sort of comment. It is useful to differentiate *topicalization* and *focus*, which is covered in §2 and §4.¹⁸ Both topicalization and focus highlight elements in discourse, but they differ pragmatically and syntactically.

5.1. Pragmatics of topic vs. focus. *Pragmatically*, topicalization sets up background for some event or situation. Focus never serves as background or introductory information. As the term "focus" implies, a constituent is singled out as having something predicated of it. Focus comes up in two principal contexts: *pragmatic focus*, particularly in answer to a constituent question, where the item in focus is the answer to the question, and *contrastive focus*, which sets the item in focus apart from any other items which could potentially fill the role in question (see §§2, 4 for illustrations of both types of focus). Contrary to statements in some descriptions of topicalization and focus, it is not the case that topics are restricted to old information and focus to new information. A topic will often serve to reintroduce a known referent, e.g. when shifting direction of a narrative, but it is not uncommon, in Miya at least, to begin a narrative with a topicalized referent—several of the examples in §5.3 illustrate this. Focus, when used to answer a question, will introduce new information, but contrastive focus typically selects a known referent from other potential candidates, known or unknown.

The three examples below, taken from texts, illustrate typical pragmatic situations which lead to the choice of neutral syntax vs. topicalization vs. focus. All three examples involve subjects. From the syntax, we know that the first is neutral because the subject in question is in a conditional clause and is postverbal, the unmarked position for subjects in such clauses (11:§1.2.1.2.2, 14:§2.1.1); we know the second is topicalized because it precedes the conjunction and is thus external to the clause itself (14:§2.1.1—see §5.2 for discussion of the syntax of topicalization); we know the third is focused because it uses the special Focused Subject Perfective form (5:§2.2.2). The constituent at issue is italicized.

Neutral: ... à dəkayá ndó làabáariy-z(a) áa niy bàahə. Kwáa b-uws
 Pf hear just news-her PS &Co. father. When father-her
 áa bàahə, dùw ...
 PS father Qt

'... her family heard the news about her. When (her) *father* came, he said ...'

[A woman who has been mistreated by her husband has gone to live elsewhere. Members of her family come to discuss the situation with her. In this passage, *niy bàahə* 'family' (lit. 'father and company') is the subject of the first clause, then the second clause continues with one of the members of that plural subject, *bàahə* 'father'. Topicalization is not called for because the same subject is continued, and focus is not called for because, as the continuation of the passage will show, 'father' is only one among several people who do the same thing.]

¹⁸Jaggar (1978) discusses topics in Hausa, showing how they differ from focused constituents. Junaidu (1987) covers the same issues in greater detail. By and large, Miya parallels Hausa, *modulo* general syntactic differences between the languages. The most obvious such difference is that both topics and focused constituents must be sentence initial in Hausa, whereas this is true only of topics in Miya. Focused constituents in Miya are *in situ*.

Topic: Dàgáa d-aa náyakà sɔbá yaakìy ká, shíykèenán suw kòrmaka bangwar.
 when dɔ-Ipf seeing doers war PRM that's it Tot seizing quiver
 Tɔ̀vam kwáa nayá wánka ká s-aamíráy.
 women when see thus PRM Tot-running

'Upon seeing raiders, (the men) would just grab their weapons. As for the *women*, when they saw how things were, they would flee.'

[The passage has been describing how, in earlier times, the men would carry weapons with them as they farmed. The selection here states how they would use the weapons. The narrative then shifts to *tɔ̀vam* 'women'. Women have not been mentioned up to this point, but Miya women participate in farming, so it would be understood that if farming were going on, women would be present.]

Focus: ... còonákèn pay t-aaMángìla, yáwwá, tá Gwàrama tá sèbɔ
 now pond of-Mangila yeah of Gwarama of people
 níy aaDáya sabòoda Gwarama dɔ́ fíyàa-za
 of Daya because Gwarama FPF dig out-it

'... now the pond of Mangila, yeah, it (belongs to) Gwarama, that is, to the people of Daya, because *GWARAMA* dug it out'

[This is from a passage describing a depression high on Mangila, one of the two main inselbergs at Miya town, which was cleared out in order to form a natural cistern at the time when the people took refuge from slave raids on top of the inselbergs. *Gwàrama*, one of the first settlers at Miya and the founder of the Daya section of Miya town, has contrastive focus because he first cleared the pond even though Mangila inselberg itself is named after one of the other founders of Miya.]

5.2. The syntax of topics vs. focus. The difference between topicalization and focus is iconic in the syntax. A topic is not syntactically bound by any position in the clause which comments on it. The only requirement on the clause is that it be *pragmatically* relevant, e.g. a sentence like *as for the Miya nominal system, many other West Chadic languages also distinguish grammatical gender* is acceptable as a topic-comment structure even though "Miya nominal system" corresponds to no syntactic position in the comment clause, but a sentence like *as for the Miya nominal system, some Chadic languages don't grammatically distinguish future and progressive* would be taken as a non sequitur. On the other hand, a focused constituent must be syntactically bound to some position in its clause (in Miya, focused constituents actually *occupy* the positions to which they are bound) because the information in that clause is directly predicated of the focused constituent. This fact is syntactically iconic in clefts and pseudo-clefts where the structure of the sentence is one of predication, e.g. a cleft such as *it is Bill who studied Miya* (a structure with no direct counterpart in Miya) or a pseudo-cleft such as *Bill is the one who studied Miya* (see §4). Topic and focus structures are distinguished syntactically in at least the following ways:

- Topics are always clause initial in Miya, whereas focused constituents are always in situ (aside from pseudo-clefts—§4).
- Topics do not influence auxiliary structure, particularly the choice of TAM in their comment clauses, whereas focus constructions impose particular auxiliary choices (§2.1.2)

- A sentence can have multiple topics as long as the clausal comment is relevant to all of them (or they are relevant to each other)—see first example below under "Topics corresponding to direct or indirect object of comment" for an illustration of multiple topics. Only one constituent may be in focus because the clause in which the focused constituent appears is predicated of it, and it would not be possible simultaneously to predicate the same clause of several constituents with different functional relations to the clause.
- A topic typically corresponds to a position in the comment clause (subject, object, etc.), but this is not a grammatical requirement as long as the comment is relevant, and even where there is a correspondence, the clausal position in question will be filled, usually by a pronoun. A focused item must be bound, in the sense of "bound" as used in formal logic, to a position in its clause, and in Miya, it will actually occupy that position aside from pseudo-clefts.
- Topics are potentially separated from their comments by a pause, a topic marking particle, or some indicator of grammatical hiatus (see below). Focus is shown by the internal syntax of the clause (§§2, 4).

I found the following topic marking particles in Miya:

kàm (< Hausa)	'as for...'
kúma (< Hausa)	'as for..., for ...'s part'
má (< Hausa)	'as for..., for ...'s part'
kùwá (< Hausa)	'as for..., for ...'s part'
kwà	'and how about ...?, what about ...?' (a special topic marker relating the topic to a comment from previous context)
ká	Previous Reference Marker (see below and also 9:§2.1, esp. 2.1.2, for further comment)

Examples of topics using topic markers

(kàm) Mámman duw tɔ́ kàm, t-áa d'óma awree aa Làbee.

'Mamman said *as for him*, he was going to marry Làbe.'

(kúma) Tɔ́ kuma dùw tám mà Làbee dɔ́ fíya-w, tɔ́ má tá-w.

'For his part he said if it wasn't Làbe who cooked, he wouldn't eat.'

(má) Dè jíy marà 'án tuwsɔ̀ dè d'əngá-tl(a) áa yàaré, njɔ́ ma dè gəsa də d'əngay(a) áa vèna míy.

'He found his (the other man's) wife and spoke to her in dialect, (and) *she for her part* answered and spoke to him in Miya.'

(Ø) Dùw, "Máçə màc aa tsá-n màa?"

(kwà) Dùw, "Fíy kwà, fíy aa tsá-n màa?"

'He said, "You (fs) what are you going to give me?"

She said, "And you, what are you going to give me?"

(kwà) Dùw, "Náy kàn-wan 'íykàn kèn. Tòo, fíy kwà"

'He said, "There's my house there. So, *what about you* [where's yours]?"

(ká) Tòo, náka tál ba na d-àa bíy 'ará ka, tóo, á 'ar èwútáy 'ènáa nìy azúk-uwsə.

'Well, that beer that he will brew, well, he brews it together with his uncles.'

(ká) Ndyàan-tlón ka dlèrambə də sara-tlón-ày.

'All of them the dodo then circumcises them.'

It is not always obvious that *ká* is functioning as a topic marker. When used with a noun phrase having a known referent, even where that noun phrase is clearly a topic (cf. penultimate example above, where *tòo* 'well' intervenes after the topic), *ká* could be functioning as a Previous Reference Marker (9:§2.1.1, 10:§2.1). However, in the last example, the topic is pronominal and hence inherently referential, suggesting that *ká* has a function other than marking previous reference. *Ká* also terminates conditional clauses introduced by *kwáa* 'when' (14:§2.1.1), and since conditionals are a type of topic (Haiman 1978; Schuh 1972:Chap. 8), it is not unreasonable to believe that it may function as a topic marker for noun phrases as well. In fact, *ká* may have an ambivalent role in that it tends to be used with previously mentioned referents even where they are obviously topics.

Topics require no overt marking (cf. the example above marked "Ø"). In a count of 40-50 topics, I found slightly more than half had no particle.¹⁹ Note also that four of the topic marking particles are borrowed from Hausa (these are also the most frequently used). While these may have replaced native particles, it could be the case that marking of topics with special particles is an innovation from Hausa influence.

One piece of evidence favoring this hypothesis is that the topic itself is often not marked but can be recognized as a topic by syntactic factors. The last point above comparing topics and focus mentions that topics may be signaled by "some indicator of grammatical hiatus". This is obvious in cases where a word or phrase intervenes between a topic and its comment, e.g. *tòo* 'well' in the penultimate example above. Likewise, when a sentence initial noun phrase corresponds semantically to the verbal object or other verbal adjunct, it has to be a topic because noun phrases in these syntactic functions must follow the verb. However, when the semantic subject is in preverbal position, word order alone does not show whether it is a topic or a syntactic subject. There are three primary ways that an unmarked phrase which is a semantic subject can be identified as a topic rather than a syntactic subject. (i) A subject pronoun intervenes between the topic phrase and the verb. Even in TAM's where there is usually an overt subject pronoun in the absence of an overt nominal subject (11:§1.2.2), an overt nominal syntactic subject precludes the use of a pronominal subject. (ii) The Perfective auxiliary *à* is overt between the topic phrase and the verb. If the subject of a Perfective verb is not an overt nominal, the subject will have Ø expression, but the verb will be preceded by an auxiliary *à* (5:§2.1.3). (iii) The topic phrase precedes a conjunction such as *kwáa* 'when', *tá* 'if', *bà* 'if it were that'. A noun

¹⁹The figure "40-50" is approximate. It is not always obvious whether a subject noun phrase is a topic or a grammatical subject. Often a subject noun phrase followed directly by an auxiliary was translated into Hausa as if it were a topic, even though there was no grammatical or phonological indication of this in Miya (cf. 11:§1.2.3). Another problem in establishing whether a noun phrase is a topic or not is the interpretation of *ká* noted in the preceding paragraph. When a noun phrase ending in *ká* is the semantic subject of a sentence, it is not always clear whether *ká* has only the determiner function of a PRM or is a topic marker.

phrase preceding these conjunctions must be external to the clause and therefore cannot be a syntactic subject. Following are examples of each of these environments. Others are to be found in the examples further below.

Overt pronominal subject intervenes between topic and verb (cf. (i) with (ii, iii))

- (i) ... jàafúw tlón d-àa d'əhónà benti, (topic + pronoun subject)
 men they d-à-Ipf tie on loincloth
- (ii) tavan kuwá tlón d-àa d'əhónà sáakàr-káatòo, (topic + *kùwa*; + pronoun subject)
 women Top they d-à-Ipf tie on woven wrapper
- (iii) bàzaniy d-aa d'əhónà tsótsaliy ... (bàzaniy = syntactic subject)
 girls d-à-Ipf tie on cowries

'... (i) the men, they wore loincloths, (ii) as for the women, they wore woven wrappers, (iii) [and] the girls strapped on cowries ...'

Perfective auxiliary *à* intervenes between topic and verb

Tòo nákən wár à mba-tá suw.
 OK that festival Pf finish-ICP Tot

'OK [the description of] that festival, it's done.'

Topicalized noun phrase precedes a conjunction

Bà kír bà mār vīy áagətakə ká, dāa a ziy-ta s-áy.
 doer theft CfC find door open PRM "would"²⁰ Cf enter-ICP Tot-Tot

'If a thief were to find a door open, he would enter.'

5.3. Illustration and discussion of topics. Following are further examples of sentences with topicalized constituents. They are grouped according to the semantic role the topic plays in the comment. Since topics have only a loosely defined pragmatic connection to their discourse environment, I have included a brief discussion of context after each example.

Topics corresponding to the semantic subject of the comment

Mángila a səm má ndóra Gituwà-w. Gituwà kúma à səm má ndóra Mangila-w.

'Mangila didn't know about Gituwa. Gituwa for his part didn't know about Mangila.'

[The topic picks up a previously mentioned referent as a new topic.]

Dùw, "Tòo, tày-tla-y!" Dè kiya tiv-ay dè kiya variy-áy. Njə kùwá dè hiya híyà jifə naaza áynùn.

'They said, "OK, take her away!" He took her, and she started crying. Now as for her she hated her husband a lot.'

[The story line shifts from what is happening to the girl to her relationship to her husband, which will be important for further development of the story.]

²⁰The word *dāa*, translated "would", is a counterfactual marker borrowed from Hausa. It is not an obligatory part of counterfactual sentences in Miya (14:§2.4).

Bàzaniy wutó njè g-aa páa dzàfə hár vaaatlə. Wàataw saba ná dɔna-za, kwáa g-áa camàza ká, kóowènéékí d-aa b-uws ée hiyra adúkuna-zà.

'One girl will collect even five men (as suitors). That is, *her suitors*, when night comes, each one comes for conversation at her place.'

[The topic shifts from the girl to her suitors. Note that the topic is plural but the subject to which it corresponds, 'each one', is singular. A conditional clause separates the topic from the main clause which contains the corresponding subject.]

Níya zùwríyà há-fə ka tlən àa d́ma-f́ tàymakoo. ... Níwiy kuma tlən àa d́ma tàymakoo aa mír.

'*Those of your lineage* they will help you [do-to-you help]. ... *Others* they will help with money.'

[The first italicized phrase appears to be a topic marked with *ká*. It is not the syntactic subject since the pronoun *tlən* fills that position. The dots represent intervening sentences stating the kinds of help (in preparing for a certain festival) that some people will give. The final sentence of the sequence has as topic the referential indefinite pronoun *níwiy* 'others, certain ones'.]

Níy atukusən ndáa 'əndáa wiy, kwáa b-uws ee tlyadi ka, kwáa tlyad(a) áatlyadi ká, dè tl-uwsó dè b-uwsó kám-ay ...

'*A hedgehog and a certain man*, when he [the man] would go to farm, when he had done his farming, he would set off and go home ...'

[This is the opening of a folktale, the principal characters of which are introduced by a topicalized phrase. One of the topics is immediately picked up. The other, the hedgehog, appears in the second paragraph, not included here. The function and meaning of *ndáa* in the topicalized phrase is not clear. It appears a couple of times in topics, but it more often appears within verb phrases.]

Tó má 'əfáa 'iyáaliy niywasə t-aa b-uwsó t-àa doona-tlən ham bá táw.

'*He for his part and his family* he went and was seeking food (*hám bá táw*) for them.'

[There is a double topic, one being *tó* (*Gítúwà*, one of the original founders of Miya town) and the other a phrase conjoined with it, 'əfáa 'iyáaliy niywasə 'and his family'. Each corresponds semantically to a different grammatical position in the comment, *tó* being the subject, 'əfáa 'iyáaliy niywasə being the indirect object.]

Topics corresponding to the semantic direct or indirect object of the comment

Món kuma, ásaliy-wan, kàaká nùwun a kəna-ya má kəna-wù; kàaká tùwun mákwaya à kəna-tla má gan kənə-wu.

'As for me, my origin, *my grandfather* one did not buy him [as a slave]; *my grandmother* one did not buy her either.'

[There are actually three topics at the beginning: *món kuma* 'as for me', *ásaliy-wan* 'my origin', *kàaká nùwun* 'my grandfather'. The first is semantically related to the third as a genitive, but it corresponds semantically to no grammatical position in the comment clause. The second topic has only a pragmatic

connection to either the topics or the comment clause. The italicized topics have not been explicitly introduced at this point in the story, but they are implied by *ásaliy-wan* 'my origin'.]

Ábáaya dàga míy-úws-ay aa Kārsha, ... Jòjin ázukwá Masangà, tòo, dè tsá-ya gwàlfə t-áy.

'Afterward when Karsha had died, ... *Jojin the uncle of Masanga*, well they gave the chieftainship to HIM.'

[The storyline shifts from Chief Karsha to Jojin, a new topic not formerly mentioned. Note that within the comment, the pronominal object corresponding to Jojin bears contrastive focus, i.e. "Jojin and not somebody else".]

Àa 'iyká wùtlə tóvən gyaruwniy, wiy wuriy jíyeyí ba na d̀nga-y(a) áandu w Vəna Dingil, dúk bàzaniy má na d-àa bay-tlá akan hà jífə naazà, á zày-tla dè ndəmə Vəna Dingil ká.

'Thereupon *the older girls*, there is a certain place which is called Vəna Dingil, *every girl who one will take to the house of her husband*, one enters her [into the arena] so that she goes around this Vəna Dingil.'

[The first italicized phrase is a topic separated from its comment by an existential clause, then retopicalized as a grammatically singular phrase which is resumed in the comment by a singular object pronoun. The first topic has not been mentioned previously, but since the text describes a festival, presenting the role of each social group, one could say that the existence of the girls is implied. The topic here shifts attention to these girls.]

See also the last example under **Subjects** above.

Topic corresponding to a semantic genitive in the comment

Tíy Gítúwà daga b-úwsə ... kwáa kóla sàmay ká, d-àa páa nd-eyin-wasə wutó ... Tíy Mangila kuwá, kwáa kóla sàmay áa sòbə niy akán-wəsə ká, d-àa vaa ndə barkatai káwà.

'*He Gítuwa* when he came ... when one would sweep the trash, they would collect it in his one place. *As for Mangila*, when the people in his house would sweep the trash, they would just dump it all around.'

[The first italicized topic is picked up both as subject of the first "when" clause of the comment and in a genitive phrase. The second italicized topic is picked up only as a genitive in the "when" clause of the comment. As in Examples above, topics show change in point of view in the story.]

Topic without a direct semantic correspondence to a grammatical position in the comment

Írìn sətórà n-áashiyí, wàataw, jaafúw tlən d-àa d'əhónà benti. Təvan kuwá tlən d-àa d'əhónà sáakàr káatòo. Bàzaniy d-aa d'əhónà tsótsaliy j-áa béd'aa-zà. Bándzahə kuwá t-àa d'əhónà pélərə tar.

'*The type of clothes in the past*, that is, *men* they wore a loin cloth. *As for women*, they wrap on the cloth *saakar kaato*. A young girl would strap cowries on her front. *As for a young man* he would strap on a squirrel skin.'

[The example above is from a text on traditions. A new topic is introduced, *irìn sàtárà n-áashiyí* 'the types of traditional clothes', which corresponds to each specific type of clothing mentioned in the following passage, but which corresponds to no particular grammatical position in the comment clause(s). Of the four types of people, three are introduced as topics, as seen by the particle *kùwá* and/or the presence of a subject pronoun in the comment clause. Only *bàzaniy* 'young girl' appears not to be a syntactic topic since the auxiliary immediately follows.]

Hám bá asaliy Miya, wàatoo a ba-tlón aa gàbar.

'The origin of Miya, that is, they came from the East.'

[This is the opening sentence of an oral history of Miya town. The topicalized phrase does not correspond to any grammatical position in the comment, though the pragmatic connection is clear.]

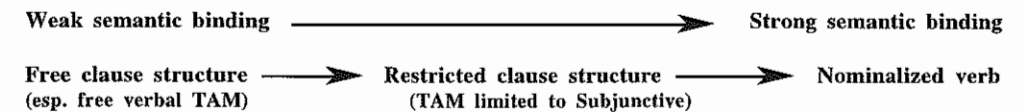
See also the first example under **Objects** just above, where *ásaliy-wan* 'my origin' also does not correspond to any grammatical position in the comment.

Chapter 13

CLAUSAL COMPLEMENTS

1. Introduction: Givón's Typology of Clausal Complements

The presentation here is based on the typology of complements in Givón (1980) which relates the degree of syntactic binding (ranging from free, tensed clause to nominalization) to the degree of semantic binding between a verb and its complement (ranging from verbs which report an event to verbs which imply the success of the event in the complement). Semantic binding strength correlates with freedom of complement structure roughly as follows:



Linguists have proposed a number of syntactic and semantic parameters for categorizing clausal complements. These include the form of the complement itself (full clause vs. nominalization or infinitive), raising properties, and presupposition of the event in the complement (factivity). I use Givón's (1980) framework because Miya complement form largely falls out from the semantic properties of the complementizing construction. As far as I can determine, Miya has no cases of Subject to Subject Raising (*Miya seems to be interesting* ⇔ *it seems Miya is interesting*). There are cases of Subject to Object Raising (*I caused Bill to learn Miya* ⇔ *I caused that Bill learn Miya*—see 'cause' in §2, 'allow' in §3, and 'find' and perception verbs in §4) and Object to Subject Raising = "Tough Movement" (*Miya is tough to learn* ⇔ *it is tough to learn Miya*—see §5). Factivity seems to play no role in the syntactic structure of Miya complement clauses, though among epistemic verbs (§4), native words which occur frequently in texts ('know', 'discover', perception verbs) are all factive. Non-factive epistemic concepts like 'suspect', 'assume', 'doubt', 'guess' are not easy to elicit in any Chadic language, including Hausa, and where they do exist, they are usually borrowed, from Arabic in the case of Hausa and from Hausa in the case of Miya. I did not attempt to elicit such concepts and found no obvious examples in texts.

Miya has no overt complementizers like English *that* or Hausa *da* (as in Hausa *na gařgad'e su DA su daina karya* 'I warned them THAT they should stop lying'). Miya complement clauses are directly juxtaposed to their hosts.

The verbs I list are those for which I have examples with complement clauses. There are surely additional verbs for each category. I have listed a couple where I did get the lexical item but have no examples with complements.

2. Implicative Verbs

Implicative verbs imply the success of their complements. They may be *self-inducement* (subject of the main clause is the subject of the complement) or *manipulative* (different subjects). Self-inducement verbs all take nominalized complements (see §2.1). Manipulative verbs usually have Subjunctive complements (see §2.2).

2.1. Self-inducement verbs: 'begin', 'finish', 'repeat', etc. Following is a list of the self-inducement verbs which I collected:

dóngà	'keep doing' (< Hausa)
fáarà	'begin' (< Hausa)
kìy	'begin, set to doing' (= 'take')
màna	'do again, repeat'
már	'manage to do' (= 'get')
mbà	'finish'
sáakèè	'do again, repeat' (< Hausa)
zà	'begin, enter into' (= 'enter')
zùw	'postpone, put off doing' (= 'leave (tr.)')
gwà/gùw	'just do, do without a "by your leave"'

Self-inducement verbs require a nominalized complement. There are two forms for nominalization. One is the participle (4:§2.1), which makes a nominalized complement identical to the verb phrase of a nominal TAM (5:§2.2). This form is seen in examples (3, 4a, 5a). The other form of nominalization is a true nominal, which may be any of three types: a *dynamic noun* which has no cognate verb, e.g. *vàriy* 'crying' in (2); a *deverbal noun* (4:§2.3), e.g. *tàwazà* 'planting' in (1) or *átívi* 'walking' in (2); or a *gerund* (4:§2.2) e.g. *bàsakà* 'washing' in (4b), *d̀̀gahiya-yá* 'telling him' in (5a), *k̀̀nakà* 'buying' in (6), *gh̀̀nakà* 'building' in (7), and *b̀̀hiy* 'going' in (8). The participle in a complement seems to require a pronominal clitic or nominal complement. Otherwise, the various types of nominalization seem more or less equivalent—all verbs have participles and gerunds, but some verbs lack a deverbal noun and use the gerund in its place. An exception to this equivalence is the pair of verbs *m̀̀na* and *sáakèè*, which seem equivalent in meaning. *M̀̀na* seems to require a participle complement, whereas *sáakèè* can take either a participle or a nominalization (cf. (3-5)).

- | | |
|--|---|
| (1) míy faarà táwazà bóna | 'we began planting yesterday' |
| (2) d̀̀ kiya tív-ay d̀̀ kiya v̀̀riy-áy | 'he began walking (&) she began crying' |
| (3) d̀̀ m̀̀na d̀̀m(a) aacán nuwsə | 'he did his work again' |
| Sjn repeat doing work his | |
| (4) a. m̀̀n aa m̀̀ná b̀̀sa ndúwùl | 'I will wash the pot again' |
| I Ip̄f repeat washing pot | |
| b. m̀̀n aa sáakèè b̀̀saka nakən ndúwul | 'I will wash this pot again' |
| (5) a. m̀̀n g-aa sáakèè/m̀̀na d̀̀nga-yá | 'I will tell him again' |
| b. m̀̀n g-aa sáakèè/*m̀̀na d̀̀ngahiya-yá | 'I will tell him again' |

- | | |
|---|------------------------------------|
| (6) fà már suw k̀̀nakà saaboo mootá-à? | 'did you manage to buy a new car?' |
| you manage Tot buying new car-Q | |
| (7) mìy s-áa mbáa gh̀̀nakà súwà-y | 'we will finish building tomorrow' |
| we Tot-IPf finish building tomorrow-Tot | |
| (8) míy zùw súw b̀̀hiy-áy | 'we put off going' |
| we put off Tot going-Tot | |

The verbs *zà* 'begin, enter into' and *gwà/gùw* 'just do', illustrated in (9) and (10), govern prepositional complements. *Zà* is literally the intransitive verb 'enter', so not surprisingly, its complement used the preposition *d̀̀r̀̀r̀̀* 'into'. *Gwà/gùw* introduces its complement with *àa* 'with (instrument)' (11:§1.5). In the form *gwà*, the complement is always introduced by the preposition-like adverbial *ndə* 'just, none other than'. Examples (9-10) all have gerunds in their complements. Note, in addition, that examples (10b-d) show that intransitive verbs do not require an ICP as they would in non-nominalized clauses—but cf. (10e), where there is an ICP.

- | | |
|---|---------------------------------------|
| (9) d̀̀ z-uwsə d̀̀r̀̀r̀̀ d̀̀onak aaniỳ̀hì | 'he sets to seeking a remedy' |
| (10) a. d̀̀ gwaa nd-áa náyaka kám | 'they just saw the house' |
| b. gwaa nd-áa b̀̀híy | 'just go away!' (singular imperative) |
| c. gw-íy nd-aa b̀̀híy | 'just go away!' (plural imperative) |
| d. míy g̀̀w áa b̀̀híy | 'we just went away' |
| e. d̀̀ g̀̀w áa tl̀̀hiyá-zà | |
| Sjn "just do" Prep arising-ICP | |
| (d̀̀ baa-z(a) áakan há jifə ba njə d-aal̀̀w-wasə) | |
| Sjn go-ICP house of male whom she d-love-him | |
| 'she just gets up (and goes off to the house of the man she loves)' | |

2.2. Manipulative verbs: 'cause', 'prevent', 'allow'. The three manipulative verbs which I collected are the following:

zà'y	'cause' (= <i>zà</i> 'enter' + Transitizer -ay—7:§4.1.1)
zùw	'allow, let do' (= 'put off doing'—see §2.1 and example (8) above)
h̀̀r̀̀	'prevent' (no examples with complements found)

H̀̀r̀̀ 'prevent' is included here under the assumption that it operates like Hausa *hana*, but I have no examples with a clausal complement.¹

TAM in the complement clause: The canonical TAM in implicative manipulative clauses is the Subjunctive. This is seen in (11-14, 18-20). A negative complement takes Negative

¹The only example of this verb that I have in context is the following:

Dàgèc taa tahly ndyáam d̀̀ hará-ya-y àa tər-uwsə...

when eat food all Sjn prevent-him-Tot PS peers-his

'When they ate, his peers all prevented him [from eating]...'

The complement is implied but not overtly included. Note that -ya 'him', as the object of *hara* 'prevent', must be interpreted as being raised from subject of the (implied) complement—see comments below.

Perfective, as in (15-16)²—cf. (20), where the matrix verb is negated and the complement is in Subjunctive. Examples (17, 21) show that affirmative implicative manipulative clauses can have TAM's other than Subjunctive. In (17) the complement TAM is Imperfective, possibly because the event is habitual rather than discrete (though the same is true of (12)). In (21), the complement TAM is Perfective, possibly matching the TAM of the main clause (though the main clauses of (11, 13, 18) are also Perfective).

Raising to object: Implicative manipulative verbs allow raising to object but do not require it, i.e. it is possible to say the equivalent of 'what caused that you buy it?' (without raising) as well as 'what caused you to buy it?' (with raising). In (11, 15-16) we can see that there has been no raising because the only pronoun intervening between the matrix verb and the complement clause is a subject clitic. In (12, 18, 21) there has to have been raising: the clitics, *-tla* 'her', *-ma* 'us', and *-fə* 'you (ms)' are object clitics, and in the latter two examples, the respective subject clitics *fa* and *miy* are also present. In (13-14), the structure is ambiguous. Neither the noun subject *Ndūwya* nor the pronoun *tlən* 'they/them' would show any formal difference between being the object of the higher verb or the subject of the complement verb. Note that even where subjects are raised, the complement retains full clausal structure rather than being nominalized.

- (11) *m-áa zày faa kəna wa?* 'what caused you to buy (it)?'
 (12) *á zày-tla də ndəmə Vəna Dingil ká* 'one will cause her to go around Vəna Dingil'
 (13) *mən aa zay Ndúwya də buwáy m̀r* 'I will cause Nduya to bring money'
 (14) *míy zay tlən də buwáy m̀r* 'we caused them to bring money'
 (15) *máa zày fə buwáy mà m̀r-a?* 'what caused you not to bring money?'
 what cause you bring NEG money-Q
 (16) *màa dós zày ma bə-kóm m-ée wár-uw-à?*
 what FPF cause you (fs) come-ICP NEG-to festival-NEG-Q
 'why didn't you come to the festival?'
 (17) *hám báa zày d-àa d́sma irin taymakoo ká*
 thing that cause d-1pf do type help PRM
 'the thing that causes one to give that kind of help'
 (18) *málvó z̀w-ma súw miy piy(a) aakám-ày* 'the chief let us return home'
 chief allow-us Tot we return home-Tot
 (19) *mən aa zuwa d̄ zaa-tlən àalóm* 'I will let them enter the hut'
 I 1pf allow Sjn enter-ICP hut

²Negative Perfective in implicative clauses rather than Negative Subjunctive has a counterpart in narrative, where Subjunctive is used to express consecutive events in a story line, but if a non-event intervenes, it must be Negative Perfective (6:§2.4). In both environments the negativity of the event is perfective, i.e. the event is viewed as non-accomplished (in narrative because the story line has moved up to and past the non-event, in an implicative clause because the implicative verb implies the success—in this case, non-success—of the event). In the canonical uses of Negative Subjunctive (negative imperative, negative purpose), the non-event is not implied ('don't do that!' does not imply that the addressee will not do it, 'he hid lest he die' does not imply that he will not die). Cf. Negative Subjunctive in clauses with 'fear', examples (34-36) below.

- (20) *mən z̀w má d̄ zaa-tlən àalóm-uw* 'I didn't let them enter the hut'
 I allow NEG Sjn enter-ICP hut-NEG
 (21) *kwápa à zuw-fə fa ba-kú ee híy-ay*
 then Pf allow-you you Pf go-ICP for conversation-Tot
 'then she lets you go off for conversation'

3. Verbs of Emotion, Intention, and Strong Attempt

Givón's (1980) semantic scale separates *Emotive* ('hope', 'fear', 'refuse', etc.) from *Strong Attempt* ('plan', 'intend', 'try', etc.). In this general area, there seems to be no principled semantic correlation in Miya with complement type, e.g. the emotive verb 'refuse' takes a nominalized complement whereas '(not) want' can take a Subjunctive, even in a same subject complement. Likewise, a native word used in the sense of 'try' takes a nominalized complement while a Hausa borrowing in the same sense takes a Subjunctive. However, paralleling implicative verbs (§2), self-inducement constructions usually take the former and manipulative constructions the latter.

The word 'hope', though having an emotive connotation, falls syntactically among the epistemic verbs (§4) and is thus listed and described there.³ Manipulative strong attempt concepts such as 'order', 'admonish', 'insist' which can be interpreted as reporting commands or exhortations pattern with verbs of reported speech with respect to their complements (§6).

3.1. Self-inducement verbs with nominalized complements: 'be able', 'try', 'refuse'.

The following verbs have nominalized self-inducement complements:

<i>ìy</i>	'be able'
<i>dòon</i>	'try' (= 'seek, look for')
<i>njà</i>	'refuse'
<i>zà</i>	'be able, be up to' (= 'suffice; reach')

In contrast to the implicative examples in (1-8), where the nominalized complement usually is a deverbal noun or gerund, all the examples with intention/attempt verbs in (22-25) use the participle. Since some of the implicative examples also use the participle, this is not an absolute grammatical difference, but the *tendency* for implicative verbs to use the more noun-like deverbal nouns or gerunds correlates with the stronger semantic binding of implicative verbs. The verb of the complement clause in (23) has a cognate complement (7:§5), which is possible only in true verbal structures. The matrix verb, 'refuse', has a cognate complement in (24b).

- (22) a. *mən 'iy gan ghánà ndúwùl⁴* 'I can mold pots'
 b. *mən 'iy má ghánà tàabárma-w* 'I cannot weave mats'

³'Hope' patterns with epistemic rather than emotive verbs in other languages as well. In French, *espérer* has free tense in its complements whereas *vouloir* requires subjunctive. In Hausa likewise, *faataa* 'hope' can take complements with free choice of TAM, though some speakers use Subjunctive.

⁴The function of the particle *gán* is uncertain. It is associated with yes/no questions (12:§1) and concessive conditional clauses (14:§2.2), among other constructions. Its presence is not directly related to the complement clause structure.

- (23) fíy àa doona rəmá-zà rəmà wa? 'are you trying to eat her up?'
 (24) a. à njaa súw zàhiy-uwsə d'íy takən lóm-ay 'he refused to enter this hut'
 Pf refuse Tot entering-ICP into this hut-Tot
 b. à njaa nja sáhiy(a) àabíy-ay 'he refused to drink water'
 (25) mà zaa má baya níy b'ym-úw 'you aren't up to taking (it) to your parents'

3.2. Self-inducement verbs with Subjunctive complements: 'try', 'intend', 'plan'. The following verbs have nominalized self-inducement complements:

d'əm kookàriy	'try' (lit. 'do effort') (calqued < Hausa)
núfi	'intend' (< Hausa)
shíryí	'plan, prepare' (< Hausa)

In contrast to the verbs in §3.1, which are native, all these expressions are borrowed from Hausa, where the equivalent constructions would use the Subjunctive. Indeed, they were elicited through Hausa, so the complement structures could be calques on Hausa.

- (26) míy d'ən kóokàriy miy gyagya vána míy 'we tried to learn the Miya language'
 (27) miy aa-táa nufti miy ghəna saaboo kám 'we are intending to build a new house'
 (28) miy shiryí miy aa baa-m(a) áaKānoo 'we prepared to go to Kano'

3.3. Self-inducement/manipulative verbs with Subjunctive complements: 'want', 'fear', 'agree'. The following expressions can take either self-inducement or manipulative complements in the Subjunctive:

áalùw	'want' (actually a noun 'wanting')
làkə	'fear'
yàrda	'agree' (< Hausa) (no examples with complements found)

The verbs in this section require Subjunctive complements when manipulative (= different subjects), but as self-inducement verbs, the complement can be either Subjunctive or nominalized—cf. (33a, b). Miya does *not* utilize a logophoric system distinguishing same subject from different subject in complements. Thus, (32), where both subjects are third person masculine singular, is ambiguous as to whether the subjects are the same or different.

The complement is Subjunctive regardless of matrix clause TAM—cf. (34a, b)—and whether or not the matrix TAM is negated—cf. (31, 32). If the complement clause is negated, it uses Negative Subjunctive (34-36). Contrast this with the implicative verbs in §2.2, where a negated complement is Negative Perfective (see fn. 2 for an explanation of this difference). The verb 'fear' seems to allow either negative or non-negative complement with no difference in meaning—compare (34-36) with (37).

- (29) mən áalùw də b-úws aa Kāsham rədzà⁵ 'I want Kasham to come in the afternoon'

- (30) mən áalùw mən búw-wùn rədzà 'I want to come in the afternoon'
 ('I want I come ...')
 (31) tó m-áaluw faa tsa-yá kàbə tuwun-úw 'he doesn't want you to give him my gown'
 (32) tó m-áaluw də z-uwsə d'íy takən lóm-uw 'he_i doesn't want to enter this hut'
 or 'he doesn't want him to enter this hut'
 ('he_i doesn't want he_{i, j} enter into this hut')
 (33) a. miy áalùw miy mará mír zhəkə 'we want to get lots of money'
 ('we want we get ...')
 b. miy áalùw marákà mír zhəkə 'we want to get lots of money'
 ('we want getting [gerund] ...')
 (34) a. mən aa-táa làkaw tá biy t-úwn aa ghəns-úw⁵
 I Ct fear NEG Prt beat-me PS sky-NEG
 'I am afraid that I will get rained on' ('I am afraid lest the sky beat me')
 b. mən làkə tá biy t-úwn aa ghəns-úw⁵
 'I was afraid lest I get rained on' ('I was afraid lest the sky beat me')
 (35) mən aa-táa làkaw mən ta biy təd(a) áa-ghama dùwak-úw
 I Ct fear I NEG Prt fall from-on horse-NEG
 'I was afraid I would fall off the horse' ('... lest I fall from ...')
 (36) t-àa-táa làkaw mən tà bíy tsa-y(a) àakáy-t-úw
 he-Ct fear I NEG Prt give-him difficulty-NEG
 'he is afraid that I will give him trouble' ('... lest I give him ...')
 (37) nj-àa làkə máa-zà jíy dàba-tlá
 she-Ipf fear mother-her Prt scold-her
 'she was afraid that her mother would scold her'

4. Epistemic Verbs

Verbs of this group, which express knowledge or cognition of the event in the complement, have relatively unrestricted sentential complements, both verbal and non-verbal. Nominal subjects in these clauses can be either clause initial or postposed (cf. examples (40f, 44c) and 11:§1.2.1.1.3). General restrictions, probably universal, are that the complements may not be questions or exhortations.

As noted in §3, 'hope', though it would seem to be semantically emotive, behaves syntactically like epistemic verbs. The semantic reason for this is probably the relative independence from the speaker's mental control of the event in the complement of 'hope'. In this way, 'hope' is more like a purely cognition verb such as 'think' than it is like an emotive verb such as 'want', where speaker's will may play a role.

I have divided epistemic verbs into two semantic categories, *cognition* and *perception*. There is a syntactic correlate with this division, viz. all the perception verbs allow subject-to-object raising while none of the cognition verbs do.⁶

⁵The subject of the complement clause is postposed. This is a regular option for clausal complements. See 11:§1.2.1.1.3.

⁶I have no direct evidence that cognitive verbs do not allow raising since I did not verify the ungrammaticality of equivalents of English 'I know him to worship idols', 'he believes me to invent my

4.1. Cognition verbs: 'hope', 'remember', 'forget', 'know', 'think'. The verbs that I have found in this category are the following:

d̄əm fáataa	'hope' ('do hoping') (calqued < Hausa)
d̄əm t̄nàaniy	'remember' ('do remembering') (calqued < Hausa)
mà	'forget' (= 'lose') (no examples with complements found)
s̄ən	'know'
ts̄ammáaniy	'think(ing)' (< Hausa)

Complements to these verbs are always tensed, regardless of whether they have same or different subjects. TAM's may be Perfective or one of the variants of the Imperfective (5:§§2.2.3.1-5). The clause may also incorporate Totality (7:§2) or not—cf. (40d, e) where both the matrix and embedded clauses incorporate Totality.

- (38) a. m̄ən aa-táa d̄áma faataa [zùw nafə d̄ən súw àlbárkà]
I Ct do hoping sorghum your do Tot prosperity
'I hope [that your sorghum has prospered]'
- b. m̄iy aa-táa d̄áma faataa [m̄iy g-àa mar(a) ée-tsógə]
we Ct do hoping we gán-Ipf get place-settling
'we hope [that we will get a place to stay]'
- (39) à d̄ən t̄nàaniy [m̄ən aa búw-wùn r̄édzà]
Pf do remembering I Ipf come-ICP afternoon
'he remembered [that I would come in the afternoon]'
- (40) a. m̄ón s̄ən [a bə-tá r̄édzà] 'I know [he came in the afternoon]'
- b. m̄ón s̄ən [t-àa bíy b-uwsə r̄édzà] 'I know [he will come in the afternoon]'
- c. m̄ón s̄ən [m̄ón àa gyagiya vóna Míy] 'I know [I will learn the Miya language]'
- d. t̄ò lállee miy s̄ən súw [aacám mar-mà s-áy]
well for sure we know Tot work get-us Tot-Tot
'well, we know for sure [that our work is cut out for us]' (Perfective clause)
- e. kóowènéekiy s̄ən súw [s-aa-táa buwa-tl̄èn aa s̄əbə yàakíy]
everyone knows Tot Tot-Ct come-ICP PS people war
'everyone knows [that the war makers are coming]'
- f. (i) m̄ón s̄ən bàakoo-dz̄əhə [à k̄əra m̄ír]
I-Pf know stranger-male Pf steal money
(ii) m̄ón s̄ən [à k̄əra m̄ír àa baakoo-dz̄əhə]
I-Pf know Pf steal money PS strange-male
'I know [that the guest stole the money]'
- (41) fiy aa-táa ts̄ammáaniy [t-aa b-úwsə r̄édzà]
you Ct thinking he-Ipf come-ICP afternoon
'do you think [that he will come in the afternoon]'

data'. Such sentences are impossible in Hausa, the language of elicitation, and no such examples appear in texts or incidentally in elicited data.

4.2. Perception verbs: 'hear', 'see', 'discover'. I have found the following perception verbs which take clausal complements:

d̄əkáy	'hear'
náy	'see'
már	'find, discover' (= 'get')
t̄ardée	'find, discover' (< Hausa)

TAM's in complements: Complements to these verbs are always tensed, regardless of whether they have same or different subjects. TAM's may be Perfective or one of the variants of the Imperfective (5:§§2.2.3.1-5). Examples (44d, f) contain non-verbal clauses. The clause may also incorporate Totality (7:§2) or not—compare (42a) and (43a), both perfective with the same intransitive verb, the former without Totality, the latter with Totality.

Raising of clausal subject to matrix object: I interpret (42b), (43a), (44a), (44b), and (44cii) as involving raising of subject to object. In (42b), the overt pronominal subject *t*-he' would not co-occur with a nominal subject in the same clause. In (43a) and (44b, cii), the Perfective auxiliary *à* would not co-occur with a noun subject (cf. (42a), which I interpret as not involving raising because the auxiliary *à* is absent). The most compelling example of raising is (44a), where the matrix verb has an object clitic *-wan* and the clause has a subject clitic *m̄ón*.

- (42) a. m̄ón d̄əkáy [gyàmə-fə ba-t(a) áakám-fə]
'I heard [that your friend came to your house]'
- b. m̄ón d̄əkáy gyàmə-fə [t-aa b-uws áakám-fə]
'I heard [that your friend will come to your house]'
- (43) a. á jiy náy 'an ta Gwàrama [a ba-tlá suw iy kuw(a) àabíy]
Ft Prt see wife of Gwarama Pf go-ICP Tot place drawing water
'he would see Gwarama's wife [(she) had come to draw water]'
- b. à náy [m̄ən s-áa z-ùwn-áy]
Pf see I Tot-Ipf enter-ICP-Tot
'he saw [that I was going to enter]'
- c. d-àa náyákà s̄əba yaakíy [s-áa búwa-tl̄èn ká], ...⁷
d̄ə-Ipf seeing people war Tot-Ipf come-ICP PRM
'on seeing [that the war makers were coming], ...'
- (44) a. à m̄ár-wàn [m̄ón zà-wan s-áaləm h-úws-ay]
Pf find-me I enter-ICP Tot-hut of-his-Tot
'he found [that I had entered his hut]'

⁷The matrix clause seems to be a hybrid of a nominalization and tensed clause. The auxiliary *d-àa* is typical of a finite Imperfective clause, but the verb form *náyákà* is a nominalized form that would be used with an expressed direct object. I interpret the object as being *s̄əbə yàakíy* 'war makers', raised to object from the bracketed clause, even though the clause does not contain an overt pronominal subject, *tl̄èn* 'they', as might be expected when the subject is raised—cf. the overt pronoun in (42b). Another interpretation would be that *s̄əbə yàakíy* is not raised and the whole clause is the object of the nominalized matrix verb.

- b. món *mar* 'àfuw [à miy-tla s-ay]
I-Pf find goat Pf die-ICP Tot-Tot
'I found [that the goat had died]'
- c. (i). món *mar* gèd'anzakway [a tiy 'afuw]
I-Pf find hyena Pf kill goat
(ii). món *mar* [à tiy 'afuw aa gèd'anzakway]
I-Pf find Pf kill goat PS hyena
'I found [that a hyena had killed the goat]'
- d. á *tardèe* ['án tuwsə ma n-áakam-úw]
Ft find wife his NEG AUX-house-NEG
'he will find [that his wife is not at home]'
- e. dè *mará* [yáwun s-aa-táa sənáw-ay]
Sjn find elephant Tot-Ct sleep-Tot
'he found [an elephant sleeping]'
- f. món *mar* [tlíwiy áa-kàwakə]
I find meat roasted
'I found [the meat roasted]'
- g. bá kír kwaa mára [víy aa-gètakə] ká, t-àa z-uwsə z-ay
doer theft if find door open (stative) PRM he-Ipf enter-ICP entering-Tot
'a thief, if he finds [a door open], will go right in'

Complements of perception verbs sometimes allow *small clause* translations in English, i.e. translations without a finite verb, e.g. (44e-g). In Miya, these cases always have full clausal complements. For the stative clauses in (44f-g), see 11:§4.6.

5. Expressions with Propositional Subjects

It is questionable whether Miya has anything that could be called a syntactic clausal subject, following the standard analysis of English expressions such as 'happen' (*it happened that I learned Miya*), 'be possible' (*it is possible that Miya allows raising to object*), or 'be tough' (*it is tough for one to learn Miya*). This correlates with the fact that Miya seems to lack any native expression for expletive (empty) subjects like English 'it' or Hausa *ya* as in *yáa kàmaatà* 'it is fitting' or *yáa yìwu* 'it is possible' (see 11: §1.2.5).⁸ I divide the discussion into three types of expressions which have semantic correlates in Miya.

5.1. Transactional expressions: 'happen'. The only expression in this category which I collected for Miya is the following:

fáarà 'happen' (< Hausa *fàaru*)

⁸Nearly all the expressions in this section are borrowings from Hausa, as are many of the complement taking expressions above. It would be of both comparative Chadic and general typological interest to know how Miya (and other languages in this area which have been heavily influenced by Hausa) originally expressed the *concepts* of this chapter.

This verb requires a non-clausal subject noun phrase, usually 'what?' or 'thing', which can have a clause as a referent. The verb is intransitive and thus takes an ICP agreeing with the nominal subject.

(45) Q: M-áa *faarà-tlón-à?* ...
what-FPF happen-ICP-Q

A: Hám bá *faarà-tlón* jiy eeyí, à bə-tá dè bíy maraa-mà ...
thing that happened-ICP FIPf there Pf come-ICP Sjn Prt
find-us

Q: 'What happened?'

A: 'There was something that happened, he came and found us ...'

5.2. Modal expressions: 'be fitting', 'be necessary', 'be possible'. I have data on the following three modal expressions:

dóolèe 'it is necessary' (< Hausa)
kwád'aa 'it is possible'
à kamáatà 'it is fitting, it is appropriate' (calqued < Hausa)

The grammatical category of *dóolèe* and *kwád'aa* is not obvious. They are not verbs inasmuch as they do not carry any type of verbal morphology. Example (47c) suggests that *kwád'aa*, at least, may be a noun. In that sentence, negation is performed by the negative existential *máyyúw* 'there is not' (11:§4.4), suggesting that *kwád'aa* plus its complement is the subject of an existential sentence ("there is not the possibility [that you have seen them]"). However, *dóolèe* and *kwád'aa* do not have the distribution of regular nouns, either syntactically or in terms of morphology they may take. Importantly, there is no evidence that sentences containing these words are syntactically biclausal. The two most feasible analyses are therefore either that *dóolèe* and *kwád'aa* are nouns with complements (meaning sentences like (46-47) are subjects or predicates of non-verbal sentences) or that these words are modal operators with clausal complements.

Complements to *dóolèe*, which has an emotive sense, are always Subjunctive (cf. §§3.2-3). *Kwád'aa*, on the other hand, is epistemic and allows tensed clausal complements.

- (46) *dóolèe* faa búwa-fə píy 'you must come quickly'
necessary you come-ICP quickly (Subjunctive complement)
- (47) a. *kwád'aa* tlón-ée buwee mír 'they may bring money'
possible they-Ipf bring money (Imperfective complement)
- b. *kwád'aa* fáa má biy nayá-tlón-ùw 'you might not see them'
possible you NEG Prt see-them-NEG (Negative Imperfective complement)
- c. *kwád'aa* fà náy-tlèn máyyúw 'you cannot have seen them'
possible you see-them there is not (Perfective complement)

À *kamáatà* is a calque on Hausa *yaa kàmaatà* 'it is fitting'. Unlike *dóolèe* and *kwád'aa*, sentences with à *kamáatà* are biclausal. À *kamáatà* itself is formally a Perfective verbal construction with a third person subject (5:§2.1.3.1). The sentences in (48) show that the complement of à *kamáatà* has internal clausal structure. In (48a), the subject,

Kásham, is postposed. Since *Kásham* could not be the subject of *kámáatà* for obvious semantic reasons, it must be postposed *within* the complement clause (see 11:§1.2.1.1.3). In (48b), the clause is enclosed in the discontinuous Totality construction (7:§2,1) and in (48c) in the discontinuous negative (5:§3.1), just as would be nominal objects of verbs in the Perfective. Note that the latter facts point to the clause being syntactically an *object* complement to *à kámáatà* rather than a *subject*. This is in contrast to English or Hausa, where both semantic and syntactic arguments point to the clause being a subject (see Yalwa 1995 for an analysis of *à kámáatà* and similar constructions in Hausa). The most feasible syntactic analysis of *à kámáatà* thus seems to be that it is an impersonal modal verbal construction which takes a clausal complement as a syntactic *object*.

À kámáatà is an emotive expression. As would be expected, its complement always takes Subjunctive verbal inflection (cf. §§3.2-3).

- (48) a. *à kámáatà* dè búway mir aa Kàsham
 Pf be fitting Sjn bring money PS Kasham
 'Kasham should bring money'
- b. *à kámáatà* súw miy zaa gwalf-áy
 Pf be fitting Tot we put chief-Tot
 'we should install a chief'
- c. *à kámáatà* má dè zaa-tlón àakán hà malv-úw
 Pf be fitting NEG Sjn enter-ICP house of chief-NEG
 'they shouldn't enter the chief's house'

5.3. "Tough Movement" expressions: 'be difficult'. I collected data on only one tough movement expression:

wùyá 'difficulty' (< Hausa)

This noun is used in a 'HAVE' construction (11:§4.3). Only the configurations in (49) are possible. Notably absent is a variant corresponding to English *it is difficult to catch a hare*, with an expletive subject.

- (49) a. kwíyakà dàangu j-áa wuyà 'catching a hare is difficult'
 catching hare AUX-with difficulty
- b. dáangu j-áa wuyà kwíyakə 'a hare is difficult to catch'
 hare AUX-with difficulty catching

In the introductory paragraph of §5, I expressed doubts as to whether Miya has anything that could be called a clausal subject. Example (49a) looks as if it does have such a subject. Clearly, 'catching a hare' is semantically propositional. However, I question whether this type of structure should be considered to be *syntactically* propositional. A phrase such as *nákən acám* 'this work' could be the subject of this sentence, but *ácám* 'work' has no related verb and the demonstrative *nákən* shows that its interpretation is that of a referential noun. It also seems questionable that (49a, b) should be related syntactically to any single underlying source by object to subject raising (= tough movement). Example (49a) predicates something of 'hare catching', whereas (49b) predicates something of 'hares'.

6. Direct and Indirect Speech

6.1. **Direct quotation.** Direct quotations are always introduced by one of the quotation markers *dùw* or *dándùw*. The two forms appear to be interchangeable, though in texts, *dùw* is more frequent before direct quotes and *dándùw* before indirect quotes. A verb of speaking, usually *d'àngá* 'say, talk' or *bólá* 'say, tell', may precede the quotation markers, but in a running report of conversation, it is more common to use the quotation marker alone. A noun or independent pronoun referring to the speaker who is quoted may precede the quotation marker without an intervening verb.

- (50) Dè d'anga wiya duw, "Á! Má dè má n-àa tsá-n-a?"
 Sjn say another (f) Qt hey you (f) dè NEG AUX-Ipf give-me-Q
 'He said to another one, "Hey! Aren't you going to give me (any figs)?"'
- (51) Jée tsíyà-za duw, "Mà boo-kəm áa 'iykwá?"
 then ask-her Qt you come-ICP from where
 Jée d'anga-yá àa 'an ká dùw, "Món bòo-wan áa àaGítuwà."
 'Then he asked her, "Where do you come from?"
 Then the woman said to him (said to him the woman), "I come from Gituwa."
- (52) A: Duw, "Na tiy maa?"
 B: Duw, "Miy tiy na'ə."
 A: Duw, "Tòo."
 A: '(He) said, "What did you (pl) kill?" ("You (pl) killed what?")'
 B: '(He) said, "We killed a duiker."
 A: '(He) said, "OK."
- (53) Kàaká tùwsə duw, "Təm-áy! Mən bú-wun bálá-fə wiy."
 grandmother his Qt go (1st Imp)-Tot I go-ICP cut-you another
 Tə kuma dùw, "Mən má bù-wum-úw ..."
 Dùw, "Tà-ku faa jíy kiyaw ..."
 'His grandmother said, "Let's go on! I'll go cut you another (cane)."
 He for his part said, "I won't go on ..."
 She said, "Go and get (the cane) ..."
- 6.2. **Indirect statements.** The syntax of the clause in which an indirect statement is embedded is identical to that of direct quotations with respect to quotation markers, use of verbs of speaking, and use of nouns or pronouns referring to the subject of speaking. The indirect statement may be an affirmative or negative non-verbal sentence or a verbal sentence with any TAM other than Subjunctive or Hortative (see §6.3).
- (54) Gítuwà jée d'əma làabáariy dùw níywìy səbə jíy d'ɣr d'áy nakən àaMángila.
 Gituwa then do news Qt some people "be" in rock this at-Mangila
 'Then Gituwa heard the news that some people were on the Mangila inselberg.'
 (non-verbal locative sentence in indirect statement)

- (55) (njá kùwá dè hìya híyà jifè naaza áynùn) ànduw má 'ar-úws-uw
 Qt NEG put-him-NEG
 '(she disliked her husband a lot) she said she didn't cherish him'
 (Negative Perfective in indirect statement)
- (56) Mámman káa d'èng(a) áandùw á z-ùws aakán ka ...
 Mamman when say Qt Ft enter-ICP house PRM
 'Mamman when he says he will enter the house ...'
 (Conditional Future in indirect statement)
- (57) kwáa d'èng(a) áanduw s-áa bùwá-tlèn àa sèbè yaakíy ka ...
 when say Qt Tot-Ipf come-ICP PS people war PRM
 'when one says that the war makers are coming ...'
 (Imperfective in indirect statement)
- (58) dè d'èng-a-tlèn dùw dabaja s-áa vaa zùw-áy
 Sjn say-them Qt this year Tot-Ipf pour sorghum
 'he says to them that this year he will perform the sorghum festival' ('... will pour sorghum') (Imperfective in indirect statement)
- (59) kàakanúw niymà andúw tlèn má kèna wíyahón dzèhè dè zay-yá d'yy
 ancestors our Qt they NEG buy Hausa man Sjn introduce-him into
 wutlómíy niytlèn-uw
 children their-NEG
 'our ancestors have said that they wouldn't buy a Hausa (slave) and put him among their children' (Negative Imperfective in indirect statement)

6.3. Indirect commands and exhortations. Miya has few specific verbs for reporting commands or exhortations. The only such verb I found was *ráw* 'beseech'. In elicitation when I used some Hausa manipulative verb such as *gargada* 'admonish', *umurta* 'order', the Miya rendering used one of the neutral verbs of speaking mentioned in §6.1. Formally, indirect commands are indirect quotations (§6.2) in the Subjunctive or Hortative. Subjunctive and Hortative seem to mean about the same thing, though Subjunctive seems to be preferred. A Hortative in this context, if directed to a third person, could be interpreted as a quoted command rather than an indirect command.

- (60) málvè d'èng-a sèb aanduw dè báy wùtlómíy niytlèn amakaranta
 chief say people Qt Sjn take children their school
 'the chief told [tr. Hausa 'ordered'] the people to take their children to school'
 (Subjunctive in indirect command)
- (61) málv áanduw mèn zuw-wun 'the chief said that I should enter'
 (Subjunctive in indirect command)
- (62) née à kafè-m(a) aa baa wún kèn aadúkuná-fè àndúw dè d'èhónà-tlèn
 here is Pf send-us PS father girl PRM place-your Qt Sjn tie-them
 àwree 'èfáa wàaciya
 marriage with so-and-so (f)

- 'here it is, the girl's father has sent us to you to say that he (the groom) should be united in marriage with so-and-so (the bride)' (Subjunctive in indirect command)
- (63) mèn d'èng-a-tlèn aanduw tà kóla kól(a) aakán-tlèn
 I say-them Qt Hrt sweep sweeping house-their
 'I told [tr. Hausa 'admonish'] them to sweep their houses'
 (Hortative in indirect command)
- (64) gáluw dzèhè roo malvó ànduw ta pèr-ùws-áy-uw
 slave male beseech chief saying NEG Sjn cut-him-Tot-NEG
 'the slave beseeched the chief that one not execute him'
 (Negative Subjunctive in indirect command)

6.4. Names as complements to verbs of 'calling'. Some Chadic languages use their quotation marker (= Miya *dùw*, *áandùw*) in sentences such as *my name is John* (literally, in such languages, 'my name "quote" John'). Miya does *not* use *dùw*, *áandùw* in this way (see 11:§4.1.3 for sentences with a name as predicate). However, Miya does use *dùw*, *áandùw* to introduce a name after verbs of 'calling'. As with verbs of 'saying' in direct and indirect quotations, the verb of 'calling' need not be overt:

- (65) ágwán ka a zàra-z(a) áanduw gwàl
 locust PRM Ft call-it Qt gwàl
 'that locust, one calls it gwàl'
- (66) wíy jìy-éeyí ba na zàr-uws áanduw Bàakóo
 a certain one is-there that Ipf call-him Qt Bako
 'there is a certain man who is called Bako'
- (67) wíy wuriy j-éeyí ba na d'èngá-y(a) àndúw Wùnadingil
 a certain place is-there that Ipf say-it Qt Wunadingil
 'there is a certain place which is called Wunadingil'
- (68) wíya kacamba wún dùw Láfèe
 a certain ugly girl Qt Lafèe
 '[there is] a certain ugly girl called Lafèe'

6.5. Indirect questions. Indirect questions differ from other indirect speech in not using the quotation markers *dùw*, *áandùw*. I found no textual examples of indirect yes/no questions. My elicited examples may be calques on the Hausa sentences used in elicitation inasmuch as they use the Hausa complementizer *kóo* 'whether'. Note that the embedded question does not end in the question marker *à* (12:§1). The two examples here both contain the particle *gà(n)*, frequently associated with yes/no questions and concessive conditionals (14:§2.2).

Yes/no indirect questions

- (69) mèn sèn má koo à née gán cúw niywan-uw
 I know NEG whether Pf see gán goats my-NEG
 'I don't know whether they saw my goats'

(70) mèn aa tsiyá koo tlèn g-àa búwa-tlèn súwà
 I IpF ask whether they gán-Ipf come-ICP tomorrow
 'I will ask whether they will come tomorrow'

Most of my examples of indirect constituent questions are also from elicited data. The indirect question always takes the form of a headless relative clause (10:§5.2). I elicited these in the frames 'I don't know [...]' and 'tell me [...]'. In the first frame, at least some of the sentences could be ambiguous between the indirect question reading and a referential noun phrase reading ('I don't know who came' or 'I don't know the one who came'). In the second frame, however, the complement must be some sort of speech act, so only the indirect question interpretation is possible. Of the examples of indirect questions I have found in texts, most have the headless relative structure. However, one has the same structure as a regular constituent question with an in situ question word (see second example under **Direct Object**).⁹

Subject: món sèn má ba d'ema náken sám-uw
 I know NEG one who do this work-NEG
 'I don't know who did this work'

bàla-m ham báa dè kòmaya-tlón
 tell-me thing that dè spoil-ICP
 'tell me what spoiled'

Direct Object: bàla-m báa dè zar(a) áa àa Nduwya
 tell-me one who dè call pln PS Nduya
 'tell me who Nduya called'

dè támbayèe-tlá nj-aalùw wéena aad'ry niyká dzáho vátleeniy ká
 Sjn ask-her she-loves who? among those men five PRM
 'they ask her who she loves among those five men'

Indirect Obj.: món sèn má baa dè bàla-yá làabáariy áa Kàsham
 I know NEG one who dè tell-him news PS Kasham
 'I don't know who Kasham told the news to'

bàla-m báa fiy bàla-yá làabáariy
 tell-me one who you tell-him news
 'tell me who you told the news to'

⁹The (headless) relative construction is surely the original way of forming indirect questions in Chadic languages. In Hausa, the more conservative form for indirect questions is the (headless) relative, e.g. *naa tàmbàyeè shì àbìn dà zài sàyaà* 'I asked him what he would buy' (lit. '...the thing that he would buy'). Though I have not investigated this carefully, I believe that this is the only form found in conservative texts by older speakers, such as Abubakar Imam's *Magana Jari Ce*. However, probably under the influence of English, speakers of at least some varieties of modern Hausa are shifting to the independent constituent question form in indirect questions, e.g. *naa tàmbàyeè shì m̀èè zài sàyaà* 'I asked him what he would buy' (cf. the question *m̀èè zài sàyaà?* 'what will he buy?'). This construction may be working its way into other languages. This is probably under Hausa influence in the case of Miya, given the small number of people whose primary language is Miya and who use English on a day-to-day-basis.

Instrument: món sèn má ham báa món d-àa bíy kəla ləm áa tlón-uw
 I know NEG thing that I dè-Ipf Prt sweep room with it-NEG
 'I don't know what I will sweep the room with'

Comitative: món sèn má báa món d-àa bíy b-uwñ áaKandò 'ənáa tiy-uw
 I know NEG who I dè-Ipf Prt go-ICP Kano with him-NEG
 'I don't know who I will go to Kano with'

Stationary Loc.: bàla-m ée dzàréé làabáariy
 tell-me where spread news
 'tell me where they spread the news'

Goal Loc.: món sèn má ee mèn d-ée b-úwñ-úw
 I know NEG where I dè-Ipf go-ICP-NEG
 'I don't know where I will go'

Source Loc.: míy sèn má nay ee bàwa-tlón ka-w
 we know NEG behold where exit-ICP PRM-NEG
 'we don't know whence they came'

Time: bàla-m lóokàcýy baa dè nayá-nà
 tell-me time that dè see-you (pl)
 'tell me when he saw you (pl)'

Reason: món sèn má dàllyly báa dùw a bə-tlón ma-w
 I know NEG reason that Qt Pf come-ICP NEG-NEG
 'I don't know why they haven't come'
 ('I don't know the reason saying they haven't come')

Manner: món sèn má yaddeeníy món d-ee d'ema wiy cán-uw
 I know NEG how I dè-Ipf do some word-NEG
 'I don't know how I will do any work'

fà dəkáy suw yaddeení d-àa d'ema tál naama
 you hear Tot how dè-Ipf make beer our
 'you have heard how we make our beer'

Chapter 14
ADVERBIAL CLAUSES AND PHRASES

1. Introduction

This chapter considers adverbial constituents which are clausal or contain nominalized verbal phrases. The major categories are conditional clauses of all types, temporal clauses, and clauses expressing purpose or reason. All the clause types in these categories in Miya have some overt marker of subordination. This chapter will also describe circumstantial clauses. Although such clauses in Miya are not syntactically subordinate, they have a pragmatic function often associated with subordinate clauses, e.g. in English, where they are translatable with 'while' or 'as' (*he whistled while he worked, as I was walking down the street a fair young maid I chanced to meet*).

1.1. Pronominal subject position in adverbial clauses. Conjunctions introducing subordinate adverbial clauses fall into two groups depending on the position of pronominal subjects in their clauses:

- (i) *kwáa* 'when/if' (§2.1.1), *tá(n)* 'if' (§2.1.2), *bà* 'if (counterfactual)' (§2.4)
- (ii) *dàga* 'when' (§3.1), *j-ée* 'then' (§3.2), *kàafən* 'before' (§4), *àbáaya* 'after' (§5), *kwápalhár* 'until, even' (§7), *àadama* 'because, so that' (§9)

With group (i), pronominal subjects always precede the conjunction. In this respect, these words function more like verbal auxiliaries than subordinating conjunctions. Indeed, I have included *kwáa* among the verbal TAM's because it does not co-occur with any other TAM auxiliaries or negation (see 5:§2.2.6 and §2.1.1 for discussion). *Tá(n)* and *bà* are more conjunction-like in that they co-occur with other TAM auxiliaries and both allow negation in their clauses. All three words are conjunction-like in that the clauses which they introduce require that nominal subjects be postverbal (§1.2). Subject position seems always to be a feature of clausal syntax, not TAM choice (11:§1.2.1).

With the conjunctions in group (ii), pronominal subjects follow the conjunction and immediately precede the verb and any auxiliaries. Following are two representative examples. See the respective sections for further illustrations.

mən kwaa zara-tlən ka, á buwa-tlən 'when I call them, they will come'
I when call-them PRM Ft come-ICP

mən pùwa mír nuwun àadama fa ta bíy kərə-w
I hide money my so that you NEG Prt steal-NEG

'I hid my money so that you wouldn't steal it'

1.2. Nominal subject position in adverbial clauses. Adverbial subordinating conjunctions fall into two groups depending on the canonical position for nominal subjects:

- (i) *kwáa* 'when/if' (§2.1.1), *tá(n)* 'if' (§2.1.2), *bà* 'if (counterfactual)' (§2.4), *dàga* 'when' (§3.1), *j-ée* 'then' (§3.2), *kàafən* 'before' (§4), *àbáaya* 'after' (§5)
- (ii) *kwápalhár* 'until, even' (§7), *àadama* 'because, so that' (§9)

In clauses introduced by the conjunctions of group (i), a nominal subject must be postverbal, preceded by the postverbal subject marker *àa* (11:§1.2.1). With conjunctions of group (ii), a nominal subject may be preverbal or postverbal. Following are representative examples. See the respective sections and 11:§1.2.1 for further illustrations.

kwáa zàra-tlən aa Kàsham ká, á buwa-tlən
when call-them PS Kasham PRM Ft come-ICP

'when Kasham calls them, they will come'

d̀l̀erambə də d́ngà ndəməka gháma t̀əvam kwápa ỳùw tsá
dodo Sjn keep on go around on women until "dawn" "breaks"

'the *dodo* keeps making the rounds of the women until dawn breaks'

hár buwahiy-ùws áa zàamánìy d̀ə jíy z̀ìy-r-áy
until come-ICP PS epoch Sjn Prt pass-Tot

'until the age comes and passes on'

Semantic nominal subjects sometimes are clause initial with conjunctions of group (i), but they always precede the entire clause, including the conjunction (see first example below). I interpret these nominals as *topics* rather than grammatical *subjects*, i.e. the clause initial phrase is external to the clause itself and the grammatical subject of the clause is a pronoun or Ø which is coreferential to the topic. There are two reasons for proposing this interpretation. First, position of clause initial nominal subjects is not parallel to position of pronominal subjects, which do precede the conjunction in some clause types (§1.1). Preclausal nominal subjects may precede any conjunction, including those which pronominal subjects must follow, e.g. *dàga* (see second example below). Second, nominal referents corresponding to non-subjects in the subordinate clause may appear preclausally before the conjunction. Such preclausal non-subjects are necessarily topics. In the third example below, the preposed *wíy* corresponds to the direct object:

bá kír kwaa mára víy áa-g̀ətəkə ka, t-àa z-uwsə z-áy
one who theft if find door open PRM he-1pf enter-ICP entering-Tot

'a thief, if he finds a door open, he will go in'

bá kír dàga mára víy áa-g̀ətəkə, d̀ə z-uws-áy
one who theft when find door open Sjn enter-ICP-Tot

'the thief, when he found the door open, went in'

Wíy kwaa bay-yà ká kwaa mára d̀arhə ka, t̀o, t-àa píya píyay kam-ày.
one if take-him PRM if find way PRM well he-1pf return returning home-Tot

'Someone [Miya person captured by slave raiders], if he is taken away, if he finds the means, he will return home.'

See 12:§5 for discussion of topicalization.

2. Conditional Clauses

2.1. Simple conditionals. Hausa *idan* 'when, if' has two possible Miya renderings, one marked by *kwáa*, the other by *tá(n)*. Though both express a condition which is followed by a consequent, they differ in their internal syntax. Moreover, though there is potential for functional overlap, texts reveal consistent differences in the ways they are used.

2.1.1. *kwáa ... ká* 'when, if'

2.1.1.1. Form of *kwáa ... ká* clauses. Syntactically, the *kwáa* (= *káa* for some speakers) of *kwáa...ká* behaves like an auxiliary in the verbal TAM system in that the clause beginning with *kwáa* always consists of just a verb in the participle form plus any predicate arguments. The clause cannot be negative, nor can it contain any additional auxiliary (other than optional *bíy*, which co-occurs with other nominal TAM auxiliaries as well—cf. 5:§2.2.8). Finally, pronominal subjects precede *kwáa* as with other TAM auxiliaries (§1.1). *Kwáa* clauses always terminate with *ká*, the morpheme used in noun phrases to indicate previous reference (9:§2.1.1). I suggest an explanation for clause final *ká* at the end of §2.1.2.2. The three examples below illustrate the various configurations of *kwáa ... ká* clauses:

fàa	kwáa	zàra-tlón	ka ...	'if you call them ...'
you (ms)	when/if	call-them	PRM	
kwáa	píy(a)	aakàm	aa jifə	naaza ká, ...
when/if	return	home	PS husband	her PRM
kwáa	bíy	dáma	àa bazara	ká ...
when/if	Prt	do	PS hot season	PRM

Another reason for viewing *kwáa* as a TAM auxiliary is that *kwáa* clauses are limited to a single matrix verb phrase. On the other hand, it is not uncommon to find two or more *kwáa* clauses in a row. These structures correspond to Hausa *idan* clauses with internal strings of sentences. Thus, in the first example below, the numbered clauses would be translated in Hausa as (1) *idan sun nikàa* (2) *gàrii yaa waayèe, sai à daamà giyàa*.

...	à	'iyká	dè	tsaa	tóvàm	də	dər-áy.	(1) <i>Kwáa</i>	dəra	ká,	(2) <i>kwáa</i>	ts(a)
	from	there	Sjn	give	women	Sjn	grind-Tot	when	grind	PRM	when	appear
áa	yùw	ká,	suw	pəláká	tál-áy.							
PS	dawn	PRM	Tot	mixing	beer-Tot							

'... thereupon one gives (fermented grain) to the women and they grind it. (1) *When* they have ground it and (2) the dawn comes, they just mix the beer.'

Tòo,	(1) <i>kwáa</i>	tsátsiy(a)	aagíraráw	ataa	vəna	shim	ka,	(2) <i>kwáa</i>	b-uwsə	ká,
well	when	dig	pits	on	edge	farm	PRM	when	come-ICP	PRM
d-àa	váa	suw	ndə	dóo	gír	ká.				
də-lpf	pour	Tot(?)	just	into	pit	PRM				

'Well, (1) *when* they have dug pits along the sides of the farm, (and) (2) (the locusts) have come, they just pour into the pits.'

2.1.1.2. Functions of *kwáa ... ká* clauses. *Kwáa* clauses fall into several functional types, but what seems to unite them is the following: *kwáa* clauses express the beginning event that will initiate a sequence of (minimally two) events in an *imperfective discourse*. By imperfective discourse, I mean a projection of events not yet complete or a generic description of events (a procedural text, a description of customs, etc.). Note that tense plays no role here—the discourse could concern events in the past as long as they are viewed as generic for the time of reference. (See 6:§3.1 for discussion of *imperfective vs. perfective* discourse.) *Kwáa* can usually be translated 'when' (rather than 'if') in English because the events in *kwáa* clauses are always part of the event sequence itself rather than a condition upon which other events depend.

The following categories of functions for *kwáa* clauses have no special pragmatic or formal status. They are meant only to give some structure to the description of contexts for such clauses. (See §2.1.2.2 for further examples contrasting the functions of *kwáa* with the functions of *tá(n)* 'if'.)

Event which initiates or propels a sequence

This may be at the beginning of a text, as in the first example below. In the second example, the first *kwáa* clause initiates events. Note that the second *kwáa* is best translated 'if' in English, but as noted above, *kwáa* is functionally appropriate because the event is part of the sequence itself:

<i>Kwáa</i>	záa	àa	vərkə	bá	sár-ùwsə	ká, ...	kóowéenà	bá	vərk-eeke
when	reach	PS	boy	who	circumcision-his	PRM	every	owner	boy-every
də	kəna	lémbi ...							
Sjn	buy	bull							

'When a boy reaches the age of circumcision, ... every parent of (such a) boy buys a bull ...'

Báa	vərkə	jíy	tí-uwsə	də	bíy	mará	báa	wún.	(1) <i>Kwáa</i>	b-uwsə	ká	də
father	boy	F1p	arise-ICP	Sjn	Prt	find	father	girl	when	go-ICP	PRM	Sjn
dəngá-y(a)	áanduw,	"Mən	áa-lùw	mən	hadéé	vərkə	nuwun	'ənáa	wùn	tafə."		
say-to him	Qt	I	Ipf-want	I	join	son	my	with	daughter	your		
(2) Tòo	<i>kwáa</i>	yàrdá	àa	baa	wún	ka,	dùw,	"Tòo	shíykèenán."			
	well	if	agree	PS	father	girl	PRM	Qt	OK	that's	it	

'It's the father of the boy who sets off to find the father of the girl. (1) *When* he goes, he says to him, "I want to join my son with your daughter." (2) *If* the father of the girl agrees, he says, "OK, that's fine."

Recapitulation

Rather than introduce a new event, a *kwáa* clause may recapitulate a preceding event, in effect stepping back and rebeginning the sequence. This function of *kwáa* clauses in imperfective discourse is paralleled by *cohesive* clauses in perfective discourse (§3.1):

Tòo kàndà-wéenà bá kam-èekí 'ənáa 'iyáaliy də ba-tlón də bfy tsəra shim.
well every owner house-every with family Sjn go-ICP Sjn Prt rake farm

Kwáa tsəra shim ká dè piy(a) aavuwágwàhiy-áy.
when rake farm PRM Sjn return town-Tot

'Well every head of household and his family go and rake the farm. *When* they have raked the farm, they return to the town.'

Next natural event

When there is a time lapse between an event and the next natural event (*natural* depending on cultural or pragmatic context), the latter often appears in a *kwáa* clause:

[following a description of ceremonies surrounding circumcision]

Kwáa biy ndər(a) áa mèmíy ndyáan gábáa-dáya ka, tòo shíykèenan dè
when Prt heal PS wound all completely PRM well that's it Sjn

baway-tlən dáyaya àa kwal.
remove-them all(?) from ritual hut

'*When* the whole incision is completely healed, well that's it, one takes them (the circumcised boys) from the ritual hut.'

... kóowènéekì báa vórk áakan-wàs-éekì dè raða zúw-ay. *Kwáa* ghódz-uwsə
every owner son house-his-every Sjn wet sorghum-Tot when become-ICP

wùlum aa zuw ká, tòo shíykèenan, Bàakóo dè bəla múkw-ay ...
mash PS sorghum PRM OK that's it Baako Sjn state day-Tot

'... every man with a son in his house wets sorghum. *When* the sorghum has turned into mash, OK, that's it, Bako [the masquerader in charge] states the day ...'

(1) *Kwáa* biy tsáa ngón ka, dè dzara-tlón aa səbə. (2) *Kwáa* biy
when Prt give name PRM Sjn disperse-ICP PS people when Prt

wasən-ùwsə wutó àa lay ká, dè fáara mbágəday ...
last a year-ICP one PS child PRM Sjn begin crawling

'(1) *When* one has given the name (to a newborn), the people disperse. (2) *When* the child has lived one year, it begins crawling ...'

Temporal context

Kwáa clauses often establish a temporal context. This always involves a temporal event which signals the beginning of a sequence ('coming of dawn', 'falling of night', 'arrival of a season, etc.):

... *kwáa* dóm(a) aa camaza ká, dlərambə də dínɡà ndəmáka gháma təvam.
when do PS night PRM *dodo* Sjn keep on touring on women

Kwáa ts(a) áa yùw ká, misáaliy kárfèe fərfədə, à 'iyká kóowènéekì dè
when appear PS dawn PRM example o'clock eight from there everyone Sjn

dəhón-ùws-áy ...
bind-ICP-Tot

'... *when* night falls, the *dodo* keeps making the rounds of the women. *When* the dawn comes, about 8:00 A.M., thereupon everyone girds his loins ...'

Kwáa clauses with a temporal word as (semantic) subject often have the following form:

Kwáa g-áa camaza ká, kóowènéekì d-aa b-uws ée híyra adúkuna-zà ...
when [...] night PRM everyone də-Ipf go-ICP in order chatting place-her

'*When* night falls, everyone (all a girl's suitors) goes to chat at her place ...'

Kwáa g-áa wasəm ká ndyáan səbə ka dè piya kám-ay.
when [...] year PRM all people PRM Sjn return home-Tot

'*When* the rainy season comes around, all the people return to their homes.'

Kwáa g-áa tsuwəy mukwá na sáa tál ka, ...
when [...] morning day Ipf drink beer PRM

'*When* the morning comes on the day that they will drink beer ...'

The *kwáa* clauses here differ from all those above in that they apparently lack a verb. The form *g-áa*, marked [...] in the interlinear gloss, is problematic. It appears to be the auxiliary *g-* (5:§2.2.3.3) followed by *aa*, but if this is correct, it is not clear what the function of *g-* is or what *aa* is. The latter could be the mark of a postposed subject (11:§1.2.1), but this is otherwise restricted to sentences with verbal clauses; it could be the preposition 'with', found in instrumental noun phrases (11:§1.5) and 'HAVE' sentences (11:§4.3), an analysis which would require that these clauses have an expletive subject (see 11:§1.2.5); or it could be a prefix on the temporal word (cf. the locative nominal prefix *da-*, 8:§6.1). Another possibility is that *gáa* is a verb meaning "happen, be accomplished" which takes time expressions as subject.¹ None of these analyses is fully satisfactory, leaving the analysis of this construction as one of the unsolved mysteries of Miya. This same construction is found in *dəgaldəg-ée* cohesive clauses (§3.1).

2.1.2. *tá(n)* ... [ká] 'if'

2.1.2.1. Form of *tá(n)* ... [ká] clauses. In §2.1.1, I suggested that the "conjunction" *kwáa* is best interpreted as a verbal auxiliary. *Tá(n)* shares with *kwáa* the fact that it must follow a pronominal clausal subject, but otherwise *tá(n)* has properties of a subordinating conjunction. A *tá(n)* clause may contain any verbal TAM which is not incompatible with stating a condition (this excludes Imperatives, Hortatives, and Subjunctives). The examples immediately below illustrate the range of TAM's found in *tá(n)* clauses as well as non-verbal *tá(n)* clauses. Note the further formal features of *tá(n)* clauses:

(i) *Tá* introduces clauses containing Perfective (affirmative or negative) while *tán* introduces clauses of all other types.²

¹There is a verb *gà* 'lie in wait for'. A semantic connection with the proposed temporal meaning is tenuous at best.

²The *-n* of *tán* may be an Imperfective auxiliary, usually found in negative contexts (5:§3.4.2). Since it is always affixed to *tá-*, I will treat *tán* as a unit for purposes of discussion here.

(ii) *Ká* terminates only affirmative, non-concessive clauses (see §2.2 for concessives).

Perfective: tá mbèna-tla s-áa àa 'an ká ...
if be beautiful-ICP Tot-pln PS woman PRM
'if the woman is beautiful ...'

Negative Perfective: ta dɔm ma dabaara aa naka ba shim-uw ...³
if do NEG plan PS that owner farm-NEG
'if that farm owner does not come up with a plan ...'

Imperfective: fā tán s-aa ba-f áakàn ká ...
you (ms) if Tot-Ipf go-ICP home PRM
'if you are going to go home ...'

Negative Imperfective: tɔo, ma tám má gəsá-w ...
well, you (fs) if NEG accept-NEG

'well, if you are not going to accept it ...'

Non-verbal: tɔo, tán suw wánka kà ...
well if Tot thus PRM

'well, if that's the way it is ...'

Negative Non-verbal: tám mà mən-úw ...
if NEG me-NEG

'if it isn't me ...'

2.1.2.2. Functions of *tá(n)* ... [*ká*] clauses. The function of *tá(n)* clauses can be defined negatively as expressing conditions which do *not* initiate event sequences. This will be the case where (i) the clause expresses a state rather than an event, (ii) the clause is negative (hence a non-event),⁴ or (iii) the clause projects an event which may not take place until after the event in the consequent clause or overlaps the event in the consequent clause. A number of the examples below include both *kwáa* clauses and *tá(n)* clauses and thus provide a contrast of the *sequence initiating* function of *kwáa* and the *condition-setting* function of *tá(n)*.

³I am unable to mark this example for tone. Vaziya did not mark tone and vowel length in texts which he wrote, but I was able to ascertain tone and vowel length by recording him reading the texts. His reading was quite accurate in general, but he inadvertently read this sentence on the tape as affirmative. Context in the text shows that the negative is the correct interpretation (see §2.1.2.2 below, examples under "Clause is negative", for full context).

⁴One could imagine the failure of an event to take place as initiating a sequence of events, e.g. *when the chief does not come out, everyone leaves*. In an example like this, the failure of the chief to come out would normally be viewed as a non-event, and as expected, Miya would use a *tá(n)* clause. On the other hand, the chief's failure to come out could be an intentional act, e.g. as a signal to people that they should/could leave, and hence, a *kwáa* clause would seem functionally appropriate. While I have no evidence from Miya to show how such a situation would be expressed, in Hausa a negative verb such as 'refuse' or 'postpone' would probably be used rather than a syntactically negative construction, making the sentence grammatically affirmative.

Clause expresses a state

[following discussion about a site for holding dancing festivals]

Tòo, tán suw wánka ka, àmmá shin tuwun g-éeyíy.
well if Tot thus PRM but farm mine there is

'Well, if that's how it is, well there's this farm of mine.'

Dà fárkoo jifana (1) kwáa náya wún gyàbiya ká, (2) tɔ tán s-áa àaluw-za
at first a man when see girl young PRM he if Tot-Ipf love-her

ká, dɔ dɔnga-tl(a) áandu, "Wáncèe, mən á àaluw-ghen."
PRM, Sjn say-to her Qt So-and-so I Ipf love-you

'To begin, (1) when a man sees a young woman, (2) if he loves her, he says to her, "So-and-so, I love you."'

(1) Kwáa biy kwiya 'am ka, tɔo, (2) ta mbèna-tla s-áa àa 'am
if/when Prt catch woman PRM well if be pretty-ICP Tot-pln PS woman

ká, tɔo tɔn má tiyà viya-za-w dɔ bay-tl-áy.
PRM well they NEG beat corpse-her-NEG Sjn take-her-Tot

'(1) If/When (slave raiders) catch a woman, well, (2) if the woman is pretty, they will not kill her, they will take her away.'

Clause is negative

Compare the first two examples, from elicited data, which are essentially a minimal pair where the negative clause uses *tá* and the affirmative clauses uses *kwáa*.

tá dɔo m(a) áa ghəns-úw, míy má d'oma tawaz-úw
if fall NEG PS God-NEG we NEG do planting-NEG

'if it doesn't rain, we will not do the planting'

kwáa dāw áa ghənsə ká, míy d'oma tawaz-áy
if/when fall PS God PRM we do planting-Tot

'if/when it rains, we will do the planting'

(1) Wíy kwáa nayá zúw na wiy à raa ráa nùwsə ká, tɔo,
someone if/when see sorghum of someone Pf exceed exceeding his PRM well

dɔ z-uwsə d'oo ddonak(a) aanfihí bá na d-àa bíy pás(a) àavùwashín ha
Sjn enter-ICP into seeking fetish that Ipf dɔ-Ipf Prt bury farm of

naka àadama zuw nuwsə dɔ kəmay-uws-áy. (2) Ta dɔm ma dabaara aa
that one so that sorghum his Sjn spoil-ICP-Tot if do NEG plan PS

naka ba shim-uw, tɔo, shím tuwsə dɔ lálacàyaa-z-áy.
that owner farm-NEG well farm his Sjn be ruined-ICP-Tot

'(1) If/when somebody sees that somebody else's sorghum is better than his, well he will go about finding some fetish that he will bury in the other person's farm so that his sorghum will spoil. (2) If the other farm owner doesn't come up with a plan, well, his farm will be ruined.' (See fn. 3 for explanation of lack of tone marks on clause (2).)

Njó kuma dùw njó má gəsá-w. ... Tó kuma dùw, "Tòo, mà tám má
she moreover Qt she NEG accept-NEG he moreover Qt well you (fs) if NEG

gə̀sá-w, mən s-aa v(a) àatsakəm-áy.”
 accept-NEG I Tot-Ipf pour bush-Tot

‘She, for her part, said that she wouldn’t accept (the fish). ... As for him, he said,
 “Well, if you won’t accept it, I’ll throw it away in the bush.”’

... àandúw súw mən jíy 'an tuws-ay. Tám mà mən-úw kuma tə má
 Qt Tot me Foc wife his-Tot if NEG me-NEG moreover he NEG

'arà wiyá-w.
 set apart another (f)-NEG

‘... he said that I am to be his wife. If it is not me moreover he’ll not choose another.’

Event in clause overlaps or is subsequent to event in consequent

fà tán s-aa bà-f áakàn ká, fàa kə̀na ham bá rə̀fə̀
 you (ms) if Tot-Ipf go-ICP home PRM you buy thing for sauce

‘if you are about to go home, buy some ingredients for sauce’

Kúma (1) kwáa dám éwùya ká, (2) tó tan s-aa-tàa dákayá 'ə̀nàa kàlpə̀
 moreover when arrive a day PRM he if Tot-Cont feel with strength

ká, t-àa tl-uwsə̀ dè b-uwsə̀ sàar àakán hà jífə̀ naa 'an ka ...
 PRM he-Ipf arise-ICP Sjn go-ICP there house of husband of woman PRM

‘Moreover, (1) when time has passed (another day has arrived), (2) if he feels strong enough, he will arise and go there to the house of the woman’s husband (i.e. the man who has lured a woman away from her original husband) ...’

I originally viewed the difference between *kwáa* and *tá(n)* as one of relative certainty vs. uncertainty respectively. However, in both elicited examples and examples from texts, the more straightforward characterization of whether or not the clause initiates a sequence of events is sufficient to predict the use of *kwáa* vs. *tá(n)*.

The meanings of the clauses also suggest an explanation for whether or not the clause final *ká* is present. *Kwáa* clauses always have final *ká*, *tá(n)* clauses only when not negative or concessive (§2.2). But the cases where *ká* is present are just those cases where the event or state expressed by the proposition in the clause will be fulfilled in the context of the narrative. This is consistent with the use of *ká* as a nominal modifier, where it represents previously established reference (§2.1.1).

2.2. Concessive conditionals. Concessivity (‘even if ...’, ‘no matter if ...’, ‘although...’) is conveyed by a combination of factors:

(i) *Tá(n)* introduces the clause.

(ii) *G(án)* is present in the conditional clause and/or the main clause. See below for position of *g(án)* in the clause. When preceding any morpheme with initial *aa*, i.e. any of the prepositions of the segmental form *aa* (‘from’, ‘with (instrument)’, marker of postverbal subject) or a noun with an *aa*- prefix, only *g-* appears; elsewhere, the form is *gán* or *gám* (cf. 2:§1.2.1 for [*n ~ m*] alternation).

(iii) Absence of clause final *ká*, which is always present in non-concessive affirmative clauses introduced by *tá(n)*.

It is the presence of *g(án)* which gives the sense of concessivity over and above simple conditionality. *G(án)* seems to be a logical operator related to English *even* and Hausa *kóo*. It is also associated with yes/no questions (11:§1), but it is found in other environments as well, esp. with verbs in the Imperfective and in some types of non-verbal sentences (see 5:§2.2.3.3 for discussion and 11:§§4.3-5 for use in non-verbal sentences).

G(án) occupies the following positions within the conditional clause:

IMPERFECTIVE: ... *tán g-àa* PREDICATE

OTHER: ... *tán* VERB (*má*) *g(án)* ... (*má* = NEG)

G(án) must appear within the conditional clause if it is to have a concessive sense. It also usually appears in affirmative consequent clauses, though not obligatorily.

Imperfective in concessive clause

mən tán g-àa tl-úwun piy, ná d'ə̀má gam ban-kwaana 'ə̀nàa tìy
 I if gán-Ipf arise-ICP early I-Ft do gán good-bye with him

‘even if I will be leaving early, I will say “adieu” to him’

tán g-àa tl-uwsə̀ píy àa Kasham, tə̀ g-aa d'ə̀ma ban-kwaana 'ə̀naa mìy
 if gán-Ipf arise-ICP early PS Kasham he gán do good-bye with us

‘even if Kasham will be leaving early, he will say “adieu” to us’

tán g-àa-táa vìy-uwn áa mà̀y, mən má rə̀mà áamuwshà̀y-úw
 if gán-Ct kill-me PS hunger I NEG eat carrion-NEG

‘even if hunger is killing me, I will not eat carrion’

Perfective in concessive clause

mən ta mar gám mootá má ghàra-za, mən g-áalùw
 I if get gán car which be old-ICP I gán-want

‘even if I get an old car, I want it’

fà ta hiyà gam sòpə̀na mà̀rdə̀, fá táa gam dàshíykèe ná zúw
 you if dislike gán tuwo millet you-Ft eat gán be the case that of sorghum

màyúw
 there is not

‘even if you dislike millet *tuwo*, you will eat it if there is none (made) of sorghum’

tá buwìy g-áa jìrkú, tó ma zùwa ghə̀mahíy-uws ádə̀na párats-úw
 if fracture gán-PS monkey, he NEG cease climbing-his on Cassia-NEG

‘even if a monkey sustains a fracture, he will not fail to climb up a *Cassia*’

Kúma (1) kwáa d'ə̀nga duw səm d'ó míy-úwsə̀, (2) kóo⁵ shím tuwsə̀ ta
 moreover if/when say Qt person FPF die-ICP even farm his if

⁵*Kóo* is the concessive marker of Hausa, which is sometimes used together with Miya *tá(n)*, but never in place of it. It was sometimes volunteered in elicitation, e.g. alongside the second example above under Imperfective, I was given the following:

kóo tán g-àa tl-uwsə̀ píy àa Kasham, ... ‘even if Kasham will be leaving early, ...’

Subject

tá zàra gam Kasham àa { (kóo)wènéekì } , tó má hayá-w
 if call gán Kasham PS whoever he NEG answer-NEG
 'whoever calls Kasham, he won't answer'

tá kàmay-tlón g-áa mèekí, fàa shəf-áy
 if spoil-ICP gán-PS whatever you (Sjn) discard-Tot
 'whatever has spoiled, discard it'

Direct object

Ndùwya tá zàr gam wéekì, tó má hayá-w
 Nduya if call gán whoever he NEG answer
 'whoever Nduya called, he would not answer'

fà tán g-àa zara wéeneekì, t-àa zuwa-fə zuwáw
 you if gán-Ipf call whoever, he-Ipf ignore-you ignoring
 'whoever you call, he will ignore you'

bá kír ta kèra gam mèekì, tə ma d́óma-yá àmfaaniy-úw
 one who theft if steal gán whatever, it NEG do-to him use-NEG
 'whatever the thief has stolen, it is of no use to him'

tá taa gan wáyàa vuwágwàhiy-éekìy, dè kwiya səb-áy
 if "eat" gán which town-ever Sjn catch people-Tot
 'whatever town they conquered, they would capture people (as slaves)'

Indirect object

món ta bəla gam làabáariy wéekì, dè dəkayá màmáakì
 I if tell gán news whoever Sjn feel surprise
 'whoever I told the news to, he was surprised'

Locative

tá dzàréé gán làabáariy kóoyùkwéekì, dəkay(a) áa səbə
 if spread gán news wherever hear PS people
 'wherever one spread the news, the people heard it'

miy ta ba-má gán yúkwéekì, kwáfa miy nay-yà
 we if go-ICP g(á) wherever even we see-him
 'wherever we went, we would see him'

Instrument

tá wàn gam kán-wàs áa mèenéekì, j-áa dáyday-áy
 if fill gán house-his with whatever AUX-"have" just right-Tot
 'whatever he fills his house with, it's just right'

fà ta hakùrà gan aa meekí, kwáfà fa náy àkyar-tlón⁹
 you if be patient gán with whatever even you see back-its
 'whatever you are patient with, you will eventually see the end of it'

Time

tá nee-mà gam ghájèekíy, dè təree-m-áy
 if see-us gán whenever Sjn greet-us-Tot
 'whenever he saw us, he would greet us'

Manner

fà ta ghəma-kú gám wánkweekìy, ná nayà gám
 you (m) if climb-ICP gán however I-Ft watch gán
 'however you climb up, I will watch'

tá ghəma-tá gám wánkweekìy àa Nduwya, ná nayà gám
 if climb-ICP gán however PS Nduya I-Ft watch gán
 'however Nduya climbs up, I will watch'

Hausa expresses a universally quantified nominal modifier in the following way, illustrated by a proverb:

Hausa: Koomee tsawon wuyàa, kái nee bisà.
 whatever length of neck head it is above
 'No matter how long your neck is, your head is still above it.'

Whereas English uses a construction 'no matter how ADJECTIVE...', however ADJECTIVE...', Hausa forms an equational sentence with the universally quantified word *koomee* 'whatever' as subject and a noun phrase with an attributive modifier as predicate, yielding a structure more literally translatable as 'whatever [be] the length of your neck'.¹⁰

I did not do any research on this construction in Miya. The translation given for the Hausa sentence above was the following:

Kóomee kyaràti-nee wír, ghàn jíy d̀àna.
 whatever length-? neck head Foc-is above

This appears to be a calque on the Hausa construction, though *kóomee* may be a native or nativized form—*mee* is the Miya word for 'what?' and *kóo-*, though originally Hausa, is now used with all universally quantified Miya constructions. I am not sure of the function of *nèe*, glossed with a "?". It could be the *-nee-* which shows up as part of universally quantified construction, a genitive linker, or a combination of the two.

⁹Note the plural pronoun, *-tlón*, agreeing with *mèekí* 'whatever'. All generic words for 'thing', including the question word 'what?' and the corresponding universally quantified word, are lexically plural. See 8:§2.3.3.

¹⁰Underlyingly, *koomee* is the predicate and the noun phrase is the subject, with obligatory fronting of the "koo-" word. It is difficult to prove that this is the case for Hausa, but it clear in English, which allows clauses such as *no matter how stupid his remarks are ...*, where verb agreement is with *remarks*. See 12:§2.3.1 for discussion of distinguishing subject and predicate in equational sentences.

2.4. Counterfactual and hypothetical conditionals: *bà ... [ká]*. Counterfactual and hypothetical conditionals are marked by clause initial *bà*, which behaves syntactically like *tá(n)* (§2.1.2) in certain respects: (i) the TAM in a *bà* clause may be Perfective or Imperfective, affirmative or negative; (ii) pronominal subjects precede *bà* but nominal subjects are postverbal (as with other adverbial subordinate clauses, semantic subjects can be placed preclausally as topics—§1.2); (iii) clause final *ká* is present only when the clause is affirmative.¹¹

The verb in the main clause has a suffix *-iy*. I have treated this as a distinct Counterfactual TAM marking of the verbal system (5:§2.1.4), glossed *Cf* in examples. All my examples of counterfactual sentences have this TAM in the main clause. I did not check to see whether other TAM's are possible in this environment.

à¹² ba bə-tlən ka, à kiy-iy s-awihl taatlən-ay
Pf if come-ICP PRM Cf come-Cf Tot-stuff their-Tot

'if they had come, they would have taken their stuff away'

mən bà zar-tlən ká, à buw-iy-tlən bíy tsəga-tlən-ày
I if call-them PRM Cf come-Cf-ICP Prt sit-ICP-Tot

'if I had called them, they would have come and sat down'

bà zar-tlən áa Kàsham ká, à buw-iy-tlən bíy tsəga-tlən-ày
if call-them PS Kasham PRM Cf come-Cf-ICP Prt sit-ICP-Tot

'if Kasham had called them, they would have come and sat down'

bà kír bà mār vīy áa-gətakə ká, dàa¹³ a z-iy-ta s-áy
one who theft if find door state-open PRM "CP" Cf enter-Cf-ICP Tot-Tot

'if the thief had found the door open, he would have entered'

bà daw áa ghənsə héevənà ká, dàa míy mār-iy marà zuw mbámán-na
if fall PS God last year PRM "CP" we get getting sorghum good-m

'if it had rained last year, we would have gotten good sorghum'

bá nà bíy dāw(a) áa ghənsə hawīya múku ka, dàa míy mār-iy marà zùw
if 1pf Prt fall PS God this year PRM "CP" we get-Cf getting sorghum

mbámán-na
good-m

'if it were to rain this year, we would get good sorghum'

¹¹As an explanation for the absence of clause final *ká* in negative and concessive *tá(n)* clauses, I suggest that the PRM *ká* would be inconsistent with non-events, i.e. negative clauses (cf. fn. 4), and the indefiniteness resulting from the implied alternative in concessives. Since the propositions in counterfactual and hypothetical clauses, by definition, express non-events, use of *ká* would thus seem inconsistent with any such clauses, affirmative or negative. However, sentences containing such clauses propose a hypothetical world, and in that world, the conditions expressed by an affirmative clause are "definite" in the sense used here.

¹²Note that the 3rd person Perfective auxiliary precedes the conjunction *bá* just as pronoun subjects do—cf. §1.1.

¹³*Dàa* in this and several examples below is a counterfactual marker borrowed from Hausa, which typically repeats the counterfactual marker at the beginning of both the conditional and main clauses. As other examples here show, this is not an obligatory part of the Miya construction.

bà dəhóm mà tsmakwīy niywasá, à rəm-iy-an rəmà zuw-áy
if tie NEG sheep his Cf eat-Cf-to me eating sorghum-Tot

'if he had not tied up his sheep, they would have eaten up my sorghum'

fà ba bəruw-wam má-w, dàa mən mb-iy m(a) àacán-nuwn-uw
you if help-me NEG-NEG "CP" I finish NEG work-my-NEG

'if you had not helped me, I would not have finished my work'

{ mən bà sən ká fà ba sən ká à ba sən áa Kàsham ká }	{ 'had I only known ...' 'had you only known ...' 'had Kasham only known ...' }
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Cf. fn. 12 for the Perfective auxiliary *à* preceding *bà* in the last example.

3. Cohesion and Sequence Marking

3.1. Cohesive clauses: *dàga/dàg-ée* vs. *kwáa*. A sequence of events in a perfective narrative (6:§3.1) may be initiated by a clause introduced by *dàga* or *dàg-ée* (sometimes *dàg-áy*),¹⁴ translatable by Hausa *dà* or English 'when'. This conjunction always introduces an affirmative verbal clause where the verb is in the participle form (4:§2.1.1). The choice between *dàga* and *dàg-ée* seems to be at least in part speaker preference. I have narrative texts from four speakers. In clauses with a third person subject, three of the speakers always used *dàga*, the other always used *dàg-ée*. In elicitation, Vaziya used *dàga* in clauses with a nominal subject, *dàg-ée* elsewhere. With pronoun subjects, *ée* is repeated both after *dàga* and after the pronoun, i.e. *dàg-ée mən-ée ...* 'when I ...'. See 6:§2.2.3.4(1) for discussion and a full paradigm.

In terms of restrictions on clause internal verbal TAM as well as function, *dàga/dàg-ée* is the *perfective discourse* counterpart to *kwáa* clauses as used in imperfective discourse (§2.1.1.2). Although both *kwáa* and *dàga/dàg-ée* clauses can be interpreted as introducing the first event of a (sub)sequence of events in a narrative, they are used in slightly different ways. Unlike *kwáa* clauses, *dàga/dàg-ée* clauses as used by speakers in texts almost always have a *scene setting* function rather than an *advancing* function. Longacre (1990:2-3), in his scheme of narrative structure, distinguishes between "clauses which report Backgrounded Events which are considered to be preparatory to or resulting from those which are reported on the storyline" (his #2 ranked clauses) and "Cohesive clauses (adverbial) which refer back to previous parts of the storyline, either by reporting a new but script-predictable event or by an anaphoric reference to the former event" (his #7 ranked clauses). I here borrow Longacre's term "Cohesive clauses" for *dàga/dàg-ée* clauses, which seem to conflate these two narrative functions. I present examples below under several functional headings. The first most closely resembles Longacre's definition of "Cohesive Clauses", the other his "Backgrounded Events":

¹⁴I assume that this conjunction is borrowed from the Hausa locative source preposition *dàgà* 'from'. However, its use in Miya syntax is distinct from its use in Hausa. In Hausa, it can take only a nominal or nominalized complement, whereas in Miya, it can take only a clausal complement. Unlike Hausa, Miya never uses *dàga* with a locative complement. This function is expressed with a preposition *dà* (11:§1.4.2).

Recapitulation of a preceding event

... j-ée baa-zà jíy kuw(a) àabíy àa d'íy pay t-aaMangila. *Dàga kúw(a)*
 then go-ICP Prt draw water from in pond of-Mangila when draw

àabíy, dè kiya ghámà-za ...
 water Sjn take head-her

'... then she went and drew water from the pond of Mangila. *When she had drawn the water, she took it on her head ...*'

... dùw, "Tùway fíy wana mèn sáw." *Dàg-áy kèd'áy fíy d'íy tlarkáy, dè*
 he said bring flour that I-Sjn drink when dip flour into calabash Sjn

kiya ázùrfá wáná dè ará-yà d'íy ...
 take silver that Sjn put-it in

'... he said, "Bring that gruel so I can drink some." *When she had dipped some gruel into a calabash, she took that silver and put it in (the calabash) ...*'

In the second example, the *dàg-áy* clause recapitulates an event implied by the quote.

Temporal context

Dàga d'am(a) ée-wíya, 'án ta sòn n-aaGítuwà dè b-aaz(a) ée kùw(a)
 when reach another (day) wife of man of-Gituwa Sjn go-ICP in order drawing

aabíy àaMángilà.
 water on Mangila

'Sometime later [when one had reached another day], the wife of the man from Gituwa went to draw water on Mangila.'

Dàg-ée sənà-tlən tsér, dè súw báhíy ee rínj-àabíy-ay.
 when spend day-ICP two Sjn Tot going in order fishing-water-Tot

'When a couple of days had passed, they went fishing.'

Dàg-ée g-àa camázá, dè buwá-z(a) àa yawun ...
 when [...] night Sjn go-ICP PS elephant

'When night came, the elephant went ...'

The last example uses the apparently nonverbal construction *g-àa* + TIME. This has a parallel in *kwáa* clauses which set temporal context. See end of §2.1.1.2 for discussion.

First event moving narrative in a new direction

Sáa`n nán dè d'əma lyáap áa Bəgaw, dè mbalá-yà-y dè sáakè píyaaká
 At that time Sjn do crime PS Bəgaw Sjn depose-him-Tot Sjn repeat replacing

ga-ndə Tashay. Tòo, dàga míy-úws aa Tashà, yàwwa, dè sáakèe píyaká
 "indeed" Tashay well when die-ICP PS Tashay yeah Sjn repeat replacing

Bəgaw hár yànzú.
 Bəgaw again

'At that time, Bəgaw committed a crime, he was deposed, and they again put Tashay in his place (as chief of Miya). Well, *when Tashay died*, yeah, they again installed Bəgaw another time.'

Movement of the actor into a new situation

Here one could say that the clause contains the true initiating event of a sequence rather than providing background or cohesion, but the verbs are usually "bland" verbs such as 'go', 'come', 'arise', etc. which add no content or could easily be deduced from the primary action which follows:

... d-àa gáyá 'iyàaliy niyza. *Dàga buwá-tlən áa 'iyàaliy niyza, dùw ...*
 dè-Ipf wait family her when come-ICP PS family her Qt

'... she was waiting for her family. *When her family came, she said ...*'

Dùw, "Wíya dzáya!" *Dàga tl-uwsə dè wiya tánjəm d'óo gwàlfə.*
 Qt jump down indeed when arise-ICP Sjn jump down id into chieftancy

'She said, "Jump down!" *When he had risen*, he jumped down *tanjəm* into a chieftainship (i.e. a position of wealth).'

Perception

The *dàga/dàg-ée* clause states the actor's perception of some aspect of the preceding event:

J-ée b-uwsə dè bíy mar-úwsə. *Dàga nay-úwsə aa naká sòn n-aaGítuwà,*
 then go-ICP Sjn Prt find-him when see-him PS that man of-Gituwa

j-ée d'ənga-yá barkà aa buwákə.
 then say-to him welcome with coming

'Then he_i went and found him_j. *When the man from Gituwa_j saw him_i* then he_j wished him_i greetings on his arrival.'

... à cam má wuya ndyāam àaduwn-úw. *Dàg-áy dəkay(a) aa Labee, dè*
 Pf love NEG another(f) all world-NEG when hear PS Labe Sjn

baa-za dè jíy bàla máa-zà ...
 go-ICP Sjn Prt tell mother-her

'... he didn't love anyone else in the whole world. *When Labe heard that*, she went and told her mother ...'

3.2. Sequence marking

3.2.1. Subjunctive. Once a sequence of events is established in a discourse (perfective or imperfective), the simple Subjunctive is the most frequently used method for signaling the events in sequence which move the narrative forward. Subjunctive clauses of this type are not, strictly speaking, subordinate clauses, although they cannot stand independent of the discourse of which they are a part. See 5:§2.2.1 for discussion of Subjunctive form and 6:§§2.4, 3.1 for discussion and illustration of the sequential function of the Subjunctive. Many examples can also be found in clauses following the adverbial clauses discussed in §§2.1, 3.1 above.

3.2.2. *Jíy, j-ée* in perfective discourse. As noted in the previous section, the simple Subjunctive is the normal form used to continue a sequence already established in a

discourse (6:§2.4). In perfective discourse, the particle *jíy* sometimes appears in conjunction with the Subjunctive, as in (3) in the example below:¹⁵

Tòò, shíykèenán, (1) *j-ée* 'arà muku máa dè buwá-tlèn (2) dè b-uws áa
well that's it then-AUX set day which dè come-ICP Sjn go-ICP PS

Gítúwà (3) dè *jíy* mara Màngila (4) dè tlaa-tlèn 'éfáa Màngila (5) dè baa-tlèn
Gituwa Sjn Prt find Mangila Sjn arise-ICP with Mangila Sjn go-ICP

àkan ha Gwarama ...
house of Gwarama

'Well, that was it, (1) they set the day that they would come, (2) Gituwa went and (3) found Mangila, (4) and he and Mangila arose and (5) went to the house of Gwarama ...'

Two of the four speakers for whom I have perfective discourse data had another common way of marking the next of subsequent actions, viz. a clause with initial *j-ée*. *J-ée* seems to be a contraction of *jíy*, mentioned in the preceding paragraph, and the auxiliary *ée*, mentioned in §3.1 as contracting with *dàga*, which marks cohesive clauses (see 5:§2.2.3.4 for further discussion of *ée*). There is some overlap in *j-ée* and *dàgaldàg-ée* clauses in that *j-ée* clauses frequently create temporal reference (*j-ée dàm(a) éewíya* ... 'then one day ...') or contain "bland" motion verbs (*tòò j-ée b-uwsà* ... 'well then he came ...'). Like *dàg-ée*, *j-ée* can have a cohesive or scene setting function—compare clause (1) in the example above with a number of the examples in §3.1. However, they differ in that (i) a *j-ée* clause may stand isolated in a narrative (see first example below) and (ii) several *j-ée* clauses can follow one after the other (second example below).

Tòò shíykèenán *j-ée* d'adàngayaw. 'Well, that was that, they talked things over.'
well that's it then-AUX talk-redup.

(1) A 'iyká *j-ee* tatàray, (2) *J-ée* d'ànga-yá àa sòn n-aaGítuwà,
from there then-AUX greet-redup. then-AUX tell-him PS man of-Gituwa

"Fà boo-kw áa àa yukwá?" (3) *J-ée* gèra-yá ee bàw-uwsà aa sòn
you exit-ICP pln from where then-AUX show-him place exit-ICP PS man

n-aaMàngilà. (4) *J-ée* tsiy-ùws aanduw ...
of-Mangila then-AUX ask-him Qt

'(1) Thereupon they greeted each other. (2) The man from Gituwa said to him, "Where do you come from?" (3) The man from Mangila showed him where he came from. (4) He asked him ...'

Syntactically, *j-ée* clauses are, in effect, independent clauses whereas *dàgaldàg-ée* clauses are subordinate. Texts suggest that the principal environment for *j-ée* clauses as opposed to simple Subjunctive is some sort of interruption of the event line. In a text on the history of Miya, narrated on tape by Sarkin Miya, I found 44 *j-ée* clauses. Of these, 31 were preceded by the filler *tòò* 'well, OK', and 5 others followed a direct quote, which of

¹⁵There is another particle, *bíy*, which all speakers from whom I have relevant narratives may use in conjunction with Subjunctive in *imperfective* discourse (5:§2.2.8). Some speakers also use *bíy* in perfective discourse, but Sarkin Miya and Banapo were consistent in using only *jíy* in perfective discourse.

course interrupted the event line of the narrative itself (cf. clause (3) in the example above—clause (4) also contains a quote and is followed by a *j-ée* clause). Simple Subjunctive can follow such breaks in narration, and, as the example just above shows, *j-ée* clauses can follow one another without a break. Note also that two of the four speakers from whom I have perfective discourses never used *j-ée* at all. It seems that it is a stylistic alternative for simple Subjunctive, much like the presence or absence of *sai* before event line clauses in Hausa.

3.2.3. Sequence closing events: *súw* + nominalization + *-áy*. Miya uses a construction similar to the italicized phrase in the following Hausa example (from William R. Leben et al., *Hausar Yau da Kullum* [Stanford, CA: CSLI, 1991], 73):

Hausa: Bayan minti biyar, sai ki kwashe. Cincin ya yi. *Sai ci!*
after minute five then you remove *cincin* it be done just eating

'After five minutes, then you remove it (from the oil). The *cincin* (type of fried food) is ready. *All that's left is to eat it!*'

In Miya, these constructions use the *súw* ... *-áy* Totality construction (7:§2) encompassing a nominalized verbal phrase. The respective phrase types in Hausa and Miya generally signal an event which brings a section of the narrative to a close, e.g. the endpoint of a procedure of some kind or the final result of something which has gone on before. Though the construction is similar in form and function in the two languages, it is used more frequently in Miya than the counterpart is used in Hausa. In my Miya data, it is particularly common in procedural texts (a type of imperfective discourse), probably because such texts canonically involve various stages, each with its natural endpoint, but it can be used in perfective discourse as well. The construction can be preceded by *dè* (5:§2.2.9), an option which I found only in perfective discourse. I group the examples below according to the type of discourse they appear in.

Imperfective discourse

Kwáa ts(a) aa yùw ká, *suw pèlaká tàl-áy*.
when appear PS dawn PRM Tot mixing beer-Tot

'When the dawn comes, *then they mix the beer.*'

... tðvan 'enáa wùtlámíy *suw zàhiya pàpám*.¹⁶
women and children Tot entering cave

'[When a slave raiding party would attack] ... the women and children *would just go into a cave.*'

Tòò a 'iyká ta mar *suw kàrmaka baayiy ká, suw bàhiyá-tlèn-ay kwápa*
well from there if manage Tot capturing slaves PRM Tot carry-them-Tot until

háa-tlèn.
place-their

¹⁶Note that the final *-áy* of the Totality construction is absent. This is a frequent option with intransitive verbs (7:§2.1). *Tðvan 'enáa wùtlámíy* 'women and children' is the semantic subject of the nominalized phrase, but I treat it here as a grammatical topic, as indicated by not italicizing it (cf. 12:§5.2). There is usually no overt subject in these *súw*...*-áy* sequential phrases, but see the last example below for what appears to be an overt postposed subject.

'Well thereupon if they managed to capture some slaves, they would just take them all the way back home.'

Káa g-áa camáza ka, súw bàhíy(a) ee ghádza báng-ay. Kwáa ts(a) áa
when [...] night PRM Tot go in order turning drum-Tot when appear PS

yùw ká, suw pàpàràka cíw-ay.
dawn PRM Tot slaughter-redup. goats-Tot

'When night comes, off they go to start the fête (turn drum). When the dawn comes, then they slaughter goats.'

Perfective discourse

Dàg-ée sənà-flən tsór dè súw bàhíy ée rínj-àabíy-ay.
when spend day-ICP two Sjn Tot going in order fish-water-Tot

'When they had spent three days, off they went to fish.'

Dàg-áy ts(a) aa yùw, dè gwa nd-áa náyàka kám ba mbán-na aa
when appear PS dawn Sjn just do just-with seeing house which beautiful-m pln

àa tə aa Lafee dáhə, shíykèenán suw àwray-áy. D-àa máka nàatlón,
with him with Lafe inside that's it Tot marrying-Tot. dè-Ipf dwelling their

àshée baa Mammàn d-áalùw Lafee fee gan t́, dè súw gàab-áy àa baahə
oh my! father Mamman dè-loving Lafe ? even he dè Tot enmity-Tot PS(?) father

aa lay.
PS(?) son

'When the dawn came, they at once saw a beautiful house with him (Mamman) and Lafe inside, that was that, they just got married. They were living there, and a startling thing, Mamman's father loved Lafe too, (which caused) the father and son to be at odds.'¹⁷

4. 'Before' Clauses

The conjunction *kàafən*, borrowed from Hausa, introduces 'before' clauses. The verbal TAM is always Subjunctive, regardless of time reference. Nominal subjects are postposed. As the last example immediately below shows, a *kàafən* clause can be terminated in *ká*. I cannot state the conditions for this.

kàafən faa bíy tsəga-f(a) aaləm, mən aa kóla-fə kəláv
before you Prt sit-ICP in-hut I Ipf sweep-for you sweeping

'before you sit down in the hut, I will sweep it for you'

wíya 'am kàafən míyà-za, nj-àa kónà dzáfə vátlə
some woman before die-ICP she-Ipf marry husbands five

'a woman, before she dies, might marry five men' (topicalized subject)

¹⁷The function of the long *àa*'s glossed "PS(?)" is unclear. These could be markers of postverbal subjects, i.e. '... the father and the son [were in] conflict', or they could be the instrumental preposition 'with', i.e. '... just conflict between/with father and son'. On the latter interpretation, the comitative preposition 'ənàa would have been expected, but the speaker who narrated this text occasionally used *àa* where 'ənàa was expected—see 11, fn. 17.

kàafən də bíy nà aa tliwiy, mən dəkáy kàmshiy bá piyáta
before Sjn Prt be cooked PS meat I smell fragrance possessor pleasantness

'before the meat was done, I smelled a pleasant odor'

Àmmâa báa dè b-úwsə nà fàrkoo jíy sən n-aaMángilà, kaafən də bíy
but one who dè come-ICP at first Foc man of-Mangila before Sjn Prt

b-uwsə d-áa àa sən n-aaGítuwà ...
come-ICP Prt(?)-pln PS man of-Gituwa

'But the one who came first was the man of Mangila, before the man of Gituwa came ...'

Àmmâa kàafən píyay-y(a) àadúkuna niy b-úwsə ká, kwápa à dən tór tsər.
but before take back-him place &Co. father-his PRM even Pf do month two

'But before they return him (child being weaned) to the place of his family, he will spend up to two months (at his uncle's place).'

Kàafən may have a nominalized or temporal adverbial complement.

kàafən tsáhiyàa yùw ká, à na-ta s-áy
before breaking-of dawn PRM Pf ferment-ICP Tot-Tot

'before the breaking of the dawn, it will have fermented'

Kàafən naká sənóo fəfə ká, à rón suw shim ndyám-áy.
before those day¹⁸ four PRM Pf eat Tot farm all-Tot

'Before those four days, they (locusts) will have eaten up the entire farm.'

kàafən wíy lookàci də mənà 'ára wiy tál ...
before some time Sjn do again brew some beer

'after a while (lit. 'before a certain time') they yet again brew beer ...'

5. 'After' Clauses

'After' clauses use the conjunction *àbáaya*, borrowed from Hausa *baaya(n)*.¹⁹ *Àbáaya* can take a tensed clause or a nominal as complement. I did not check the range of TAM's which can appear in 'after' clauses. The first example below is Perfective. The second example appears to be Subjunctive, perhaps because this is part of a sequence, but Subjunctive would not be possible in 'after' clauses in Hausa or other Chadic languages that I have worked on.

àbáaya miy tìy súw dèm-áy, j-ée miy-ée bá-y
after we chop Tot tree-Tot then-AUX we-AUX split-Tot

'after we chopped down the tree, we split (the wood)'

¹⁸*Sénáw* (→ [sənóo] non-finally—2:§2.2.3.2) is a deverbal noun of the verb *səna* 'pass the night, pass a 24-hour period'.

¹⁹In Hausa, this word is derived from the body part term *baayaa* 'back', which also has a spatial function in the sense of 'behind'. In Miya *àbáaya* has only a temporal function. The Miya word *ákyar* 'back' fulfills the spatial function (8:§6.2.2).

tòo abáaya dè zaa Bəgaw, sáa'ín nán dè d'əma lyáap áa Bəgaw
well after Sjn(?) put Bəgaw at that time Sjn do crime PS Bəgaw

'well after Bəgaw was installed (as chief), then at one point Bəgaw committed a crime'

tòo abáaya mìyuw nuwsə, dè d'əma wásən wutə aa-táa d'əona gwalfə
well after death his Sjn do year one Ct seeking chieftainship

'well after his death, they spent a year looking for a new chief'

Àbáaya sənáw fərfəðə dè 'arə tál-ay.
after day eight Sjn brew beer-Tot

'after eight days, they brew beer'

6. Temporal Clauses: 'when ...', 'at the time that ...'

We can divide clauses with a temporal function into two types. (1) The clause may present an event which is temporally the first of a sequence of events. This may state an actual time ('when the dawn came, ...'), or it may indirectly establish a time ('when he came, ...'), i.e. it is the time of arrival, whenever that may be, which is the time of reference). Miya usually expresses this function with *kwáa* clauses (§2.1.1) for imperfective discourse and with *dəgaldəg-ée* clauses (§3.1) for perfective discourse.

(2) A clause may establish a specific time frame for other events ('when I was young', 'when I think about it'). Miya expresses the latter type using a temporal noun modified by a relative clause (10:§5.2.7). The most frequently used temporal nouns are *lókàciy* 'time' (< Hausa) and *mùkwa* 'day'. Temporal expressions of this type are noun phrases rather than adverbial clauses and can thus appear in syntactic positions where adverbial clauses such as those discussed in §§2-5 cannot, e.g. as objects of prepositions such as *hár* 'until':

Kúllum wəshasham ndə wánka har lookàci bá na bay-tl(a) àakán há
always year just thus until time which IpF carry-her to house of

jífə naazà.
husband her

'It's like that every year until *the time that she will be taken to her husband's house.*'

Temporal clauses in function (2) potentially overlap semantically with *kwáa* clauses (§2.1.1) or *dəgaldəg-ée* clauses (§3.1) since all these clause types can function to establish temporal reference. However, in nearly all the examples that I have found in texts, temporal clauses establish temporal context where the event in the clause does not initiate a sequence. In all such examples available to me, the event in the temporal clause is viewed as pending but not actually taking place before the event of the main clause. Presumably if the event in the temporal clause were negative, and hence a non-event, a temporal clause would also be required (e.g. 'when the rains don't come, the crops fail')—cf. discussion of *tá(n)* in §2.1.2.

Lókàciy bá na d-àa bíy vorkáw, tó jífə ka dè b-uwsə bəlaa niy
time which IpF dè-IPF Prt give birth he husband PRM Sjn go-ICP tell &Co.

bàahə.
father

'At the time that she is about to give birth, he the husband goes and tells her family.'

Múkwa na d-àa péra cùw, ... dlèrambə də d'ingà ndəmák aaghama t'əvam.
day that IpF dè-IPF slaughter goats dodo Sjn keep on go around on head women

'On the day that they are going to slaughter the goats, ... the *dodo* keeps making the rounds of the women.'

Tòo, sáa'iy baa dè tàa tíy àa Luwga, tòo, sáa'iy naká ka, wàato, m'ón
well time that Pf attain he PS Luga well time that PRM that is I

mày samaaríy ...
leader of the youth

'Well, when he, Luga, attained (the chieftaincy), well, at that time, that is, I was leader of the youth ...'

7. 'Until' and 'not until' clauses: *hár*, *kwápa*

Two conjunctions, *hár* and *kwápa*, can both be translated 'until' in at least some contexts. They seem to function like Hausa *har* and *sai* respectively, i.e. Miya *hár* has the sense of 'up to and (even) including' (the element governed by *hár* represents the completion of a set), whereas *kwápa* has the sense of 'not until, excluding everything except' (the element governed by *kwápa* is that which is outside a set). Defined in this abstract way, we can better understand why these two words, though sometimes translatable by 'until', have other English translations as well.

hár + clause

All the examples of *hár* that I have found with a clausal complement have either a Subjunctive or an Imperfective TAM. Generally, they represent the culmination of a series of actions, the ultimate result of some action, or the ultimate extent of an action.

àshée njiy dè sáaya víw har víw də gwarza-z-áy dè vorká wùn
oh my! she Sjn have (?) stomach *hár* stomach Sjn grow-ICP-Tot Sjn bear daughter

bázàni
girl

'what do you know, she was pregnant *such that her stomach grew*, and she gave birth to a daughter'

dè jíy d'áá tsiyaká pay t-áaMangil(a) aatú, tòo, hár dè d'əma daama
Sjn Prt do more digging pond of-Mangila even more well *hár* Sjn do expanse

də ra t-áashiyí
Sjn exceed that of-before

'they kept digging out the pond on Mangila even more, well, *it finally became quite a bit bigger than it was before*'

àmmāa sábdoda yawá nàatlén, kwáa p(a) áataa dóm ka, hár d-àa
but because of abundance their when/if land on tree PRM *hár* dè-IPF

rətlá-zà-y
collapse-it-Tot

'but because of their (locusts) great numbers, if they land on a tree, *they will even make it collapse*'

kúllum kwaa ghədz-uws aa wār ká, wíya mà hár nj-àa báy
always when turn-ICP PS festival PRM a certain one Top hár she-Ipf reach

wàshasham yaatla
year five

'always when the (betrothal) festival comes around, some (girl), *she will go as long as five years* (before marrying her suitor)'

kwápa + clause

All my examples of clausal complements to *kwápa* are in the Perfective. Generally, these clauses have the sense that "not until the event is complete (will the next event take place)" or "this event takes place and no other". The latter use is like Hausa *sai* + Perfective, usually translatable in English by a modal verb of obligation, such as 'must'.

míy b̀wáy(a) àawásə m̀y ləmb-uwsə ndyáam eeyí kwapa à səná-tà kídì
we bring grass we cover-it all there kwápa Pf spend day-ICP three

míy baa d́s
we remove Prt

'we bring grass and cover it (grain to be used in beer brewing) completely there [and leave it] *until three days have passed*, then we remove (the grass)'

àmmáa kàafən p̀yay-y(a) àadúkuna n̄y b-̀uwsə ká, kwápa à dən tár
but before return-him place of &Co. father-his PRM kwápa Pf do month

ts̀ər
two

'but before he (child being weaned) is returned to the home of his parents, *he has to spend two months* (at the home of his uncle)'

fà ta réenà gan wéekì, kwáfa à réenà-fə
you (ms) if belittle "even" whoever kwápa Pf belittle-you

'whoever you belittle, *he'll only belittle you*'

hár and kwápa with simple time adverbs

Both conjunctions can govern simple temporal adverbs, again with *hár* having the sense of "up to and including the time", *kwápa* having the sense of "not until the time". *Kwápa* is used in leave takings like Hausa *sai* in the sense that the leave takers will *not* see each other "until a future time".

... d̀ə d̀əma-y(a) áatlyadí. Kúllum wàshasham nd́s wánka har lookàci bá
Sjn do-for him farming always year just thus hár time which

na bay-tl(a) àakán há jifə naazà.
Ipf carry-her house of husband her

'... he (fiancé) does work for him (father of betrothed girl). It's just this way every year *until the time when they will take her to her husband's house.*'

Súw kwápa súwà.
Tot until tomorrow

'Until tomorrow; see you tomorrow.'

8. Circumstantial Clauses

Under the rubric "circumstantial clauses", I am including clauses which share the function of presenting events or states of affairs which span time during which concurrent events or states of affairs take place, serve as initiating points, or serve as endpoints. Such clauses fulfill, in part, the function of 'while' or 'as' clauses in English, e.g. *he whistled while he worked, as I was walking down the street a fair young maid I chanced to meet*. Miya, like Hausa, does not express these concepts with subordinate clauses, but rather with Imperfective clauses juxtaposed to the clauses with which they have the circumstantial relation. Thus, a rather literal translation of the equivalents of the two English sentences just above might be *he was whistling (and) he was working* and *I was walking down the street (and) I met a fair young maid*.

Miya circumstantial clauses in the sense intended here use the Imperfective TAM. This may be the simple Imperfective, usually with the morpheme *d̀ə* when the clause has a third person subject (5:§2.2.3.1, 5:§2.2.9), or the Continuative, composed of the Imperfective and the preposition *àatáa* 'on' (5:§2.2.3.2). I illustrate the clause types in question under two headings, depending on the type of event the clause is circumstantial to.

Point time event initiating, terminating, or coinciding with circumstantial event

This function is common in narrative where a durative event falls among the story line events. The story line events will be in the Subjunctive. One could potentially use a circumstantial clause in this function with a Perfective clause, but I have no examples of this.

D̀ə sáarèe kurmíyayàw n-aacibə d́áy n-aaGituwà gabáa d́aya, t̀o, d̀ə zuwa
Sjn chop forests of-base inselberg of-Gituwa completely well Sjn left

súw nd̀ə fiyliy d-aa tónzà zúw eeyí.
Tot just open space d̀ə-Ipf plant sorghum there

'They cut down the forests at the base of Gituwa inselberg completely, well, they left an open area (and) *they were tilling sorghum there.*'

D̀ə kwiya darhə njə d-aa-t(aa) aatəvi d̀ə gəma 'ənaa Mamman t̀ə
Sjn take road she d̀ə-Ct traveling Sjn meet with Mamman he

d-aaghama duwakə.
d̀ə-on horse

'She took to the road (and) *she was traveling along* (when) she met up with Mamman, (and) *he [was] on a horse.*'

Dè kwíya dārḥə d-aa-táa baa-zà-y dè díyà-za-y.
Sjn take road dè-Ct go-ICP-Tot Sjn follow-her-Tot

'She took to the road (and) she was going along, (and) he followed her.'

Dè baa-z(a) áakàm d-aa-táa gayà-tlón àakám.
Sjn go-ICP home dè-Ct wait for-them at home

'She went home (and) she waited for them at home.'

Event overlapping with or simultaneous to the circumstantial event

The clause co-occurring with the circumstantial clause is itself durative, and its duration is either simultaneous to or overlaps with part of the circumstantial event.²⁰ As above, the circumstantial event will normally be Imperfective. The other clause may be of any durative type, including Imperfective or a state. A special case of this configuration presents a durative time expression followed by a circumstantial clause. The translation will be something like 'he spent a year working on Miya', 'I spent two days typing my paper'. Note that the circumstantial clause is translated with just a present participle in English, but it is a full clause in Miya.

dāa má niywiy jiy tsəgà-tlón áagháma dáy d-àa nayá buwákə ta səba
'you know' some (pl) Ffp sit-ICP on top inselberg dè-Ipf look coming of doers

yaakiy.
war

'You know some people would sit on top of the inselberg watching for the approach of war makers.'

Dəg-áa d-àa náyakə səbá yaakiy ká, shíykèenán súw kərmaka bangwar.²¹
when-Ipf(?) dè-Ipf seeing doers war PRM that's it Tot grab quiver

'Upon seeing the war makers, that's it, they just grab up their weapons.'

Kwáa dənga duw ndúw mùkwá naa d-àa sáa ka, d'oo naka camázə ka
when say Qt Qt day Ipf dè-Ipf drink PRM in that night PRM

a sənà-tlón d-aa-t(aa) áazàbə d-àa sáa tál.
Ft spend night-ICP dè-Ct dancing dè-Ipf drink beer

'When it is said that it's the day for drinking, on that night they will spend the night dancing and drinking beer.'

Tòo, àbáaya mīyūw nuwsə də d'əma wásən wutə a-táa d'dona gwalfə,
well after death his Sjn do year one Ct seek chieftainship

málvə mayyúw.
chief there is no

²⁰The structures here are akin to verbs of perception or discovery followed by complement clauses. See 13:§4.2.

²¹The circumstantial clause uses *dəga* normally found with cohesive clauses in perfective discourse (§3.1). This was the only example I found in elicited data or texts using *dəga* in a non-perfective context. It may be a calque on the similar construction in Hausa. The verb *náyakə* is a nominalized form rather than a finite verb—see 13:(43c) and footnote for a similar example and discussion, and 5:§2.2.3.2 for discussion of verbal noun forms in the Imperfective. The main clause is a sequence closing event, discussed in §3.2.3.

'Well, after his (the reigning chief's) death they spent one year looking for a new chief, and there was no chief (during that time).'

Dè ts(a) aa yuw tsúway dè baw-uwsə, mùk-uwsə kíd(i) àa-táa tsìyáw,
Sjn appear PS dawn morning Sjn go out-ICP day-his three Ct dig

tòo, dè mar(a) áabiy-áy.
well Sjn get water-Tot

'When the dawn came in the morning, he went out, and he spent three days digging, well, he got to water.'

In addition to circumstantial clauses which signal durative events, Hausa can form circumstantial clauses using the future, which project an event to begin after the beginning (and possibly completion) of the event with respect to which it is circumstantial. For example, in (Hausa) *zai sha ruwa, sai ya ga wani abu a ciki* 'he was about to drink the water when he saw something in it', the event in the circumstantial clause *zai sha ruwa* 'he-future drink water' has not yet taken place (is projected into the future) when the event in the main clause (seeing something in the water) takes place. I found no constructions of this type in texts. I elicited only one example (using the Hausa sentence just given), to which I recorded the following response:

à tlà-t(a) áa s(a) áabiy dè nayá wiy han d'əh-áy
Pf arise-ICP Ipf drink water Sjn see some thing in-Tot

'he was about to drink the water (when) he saw something in it'

MORE LITERALLY: 'he arose (he) would drink water, he saw something in (it)'

Since this is my only example of this type of sentence, I cannot ascertain whether or not this is the only way to express this concept. It is, however, an understandable rendering. Unlike Hausa, Miya does not have a future form distinct from the Imperfective,²² which can have both durative and future senses. Thus, were the circumstantial in the Imperfective, it would not be possible from the structure alone to distinguish the meaning given here from a durative circumstantial meaning 'he was drinking water when ...'. The verb *tlà* 'arise' adds the necessary inchoative meaning, and the "drinking water" clause is actually circumstantial to that verb.

9. Reason and Purpose Clauses and Phrases

Reason clauses (clauses usually introduced by 'because' in English) are introduced in Miya by *àadama* or *dáma*. This conjunction may likewise introduce *purpose clauses* ('in order that ...', 'in order to ...'). In addition to clausal complements, *àadama/dáma* may have a nominal or pronominal complement to give the meaning 'for the sake of' (11:§1.12). Instead of *àadama/dáma*, speakers sometimes use the Hausa borrowings *dón* or *sábdoda*. Some of the illustrations below use these.

²²Miya does have a form which I refer to as Conditional Future (5:§2.2.5). The discourse distribution of this form would probably not allow its use in a circumstantial context such as that discussed here. It always seems to be used in an independent main clause or in some kind of consequent clause, never in a conditional or backgrounding clause.

9.1. Reason clauses. Reason clauses may be verbal or non-verbal. Verbal clauses may contain any verbal TAM other than Subjunctive. Nominal subjects within the clause may be preverbal or postverbal (11:§1.2.1.1.4).

Tòo, àmmá sabòoda dákáyaka²³ dàad'iy sám nuwun na wútlə bázam aa malvá
well but because feeling pleasure work my of children youth PS chief
Míy Jòojin tòo, j-ée z-èe-wan món jiy gárna na wútlə bázam ndyâam.
Miya Jojin well then-AUX put-AUX-me I Foc big of children youth all

'Well, but *because the Chief of Miya, Jojin, was happy with my work with the youth,*
well he made ME leader of all the youth.'

kál-iy(m)a áatsákən takən kən adama dārha ndón ndəmà-y
cut across-1pl Imp bush this here because road circuit circuiting-Tot

'let's cut through the bush here *because the road makes a deviation*'

món pəna-ya má-w adama à d'əm m(a) aacán nuws-uw
I pay-him NEG-NEG because Pf do NEG work his-NEG

'I didn't pay him because he didn't do his work'

míy tàbəna-tla ádama njə má bəsa-za-w
we abuse-her because she NEG bathe-ICP-NEG

'we abused her *because she doesn't bathe*'

βəg-iyká bəd-uwəsə adama tíy gárna
bow-2pl Imp before-him because he important

'bow before him *because he is an important person*'

Hám bá zày d-aa d'əma wánka ká, sábdoda n'iywiy tən áa m'ugunta.
thing which cause də-1pf do thus PRM because certain ones they with evil

'The thing that causes one to act thus, (it's) *because certain people have evil ways*'

9.2. Purpose clauses and phrases: 'so that', 'in order to'. Purpose clauses contain a verbal sentence with Subjunctive as TAM. Such clauses can be introduced by *àadamaldáma* or the Hausa equivalents *sábdoda* or *dón*. Negative purpose ('lest') is expressed using the same conjunctions with Negative Subjunctive. Purpose can also be expressed by the plain Subjunctive with no conjunction. When the subject of the main clause is the same as that in the expression of purpose, it is possible to use a nominalized phrase introduced by *ée*.

Purpose clauses with an overt conjunction

A purpose clause with an overt conjunction and a third person subject often omits the *də* characteristic of Subjunctive with third person subject (5:§2.2.1). In an example like the first one below, where there is no overt TAM marker such as *də*, the translation

²³This is actually a nominalized verb form in the form it would take before an expressed object, yet the clause has a finite force, with the postposed nominal subject, marked by *àa*. This is an oral history of Miya, recorded from Sarkin Miya. He used a number of unexpected nominalized forms in subordinate clauses. See 11:§1.2.1.2.2, last example, for another example of the same construction type.

suggests that the purpose expression is a nominalization rather than a tensed clause. However, the verb has the participle form characteristic of finite verbal clauses (4:§2.1.1) rather than a nominalized verb in the form it would take before a direct object (4:§2.1.2, 10:§3.4.2).

à boo-t(a) aadàma doona vərka nuwsə
Pf go out-ICP so that seek son his

'he went out *to look for his son*'

món fāy aakúw aadàma d'íya səpən aa Kàsáy
I blow fire so that cook tuwo PS Kasay

'I kindled the fire *so that Kasay could cook tuwo*'

món 'ar àabiy áamúku dama d'əma cúwcuw
I put water in sun so that do heat

'I put the water in the sun *so that it would get warm*'

á d'əm(a) aadàma wútləmfy ... sábdoda də ghəzda-tlón wútlə bazam
Ft do for boys so that Sjn become-ICP children youth

'they do (wrestling matches) for the boys ... *so that they might become mature youths*'

də z-uwsə d'óo d'əonak aaníyhi bá na d-àa bíy pəs(a) àavuwashín ha naka
Sjn enter-ICP into seeking charms which 1pf də-1pf Prt bury in farm of that one

àadama zuw nuwsə də kəmay-uws-áy
so that sorghum his Sjn spoil-ICP-Tot

'he sets about looking for charms that he will bury in that other one's farm *so that his sorghum will spoil*'

Negative purpose: 'lest'

món pùwa mír nuwun àadama tá bíy kíy(a) aa səba kír-uw
I hide money my lest NEG Prt take PS doers theft-NEG

'I hid my money *lest thieves take it*'

món pùwa mír nuwun àadama fa ta bíy kàrà-w
I hide money my lest you(ms) NEG Prt steal-NEG

'I hid my money *lest you steal it*'

Purpose expressed by Subjunctive with no overt conjunction

As one of its functions, the Subjunctive marks events in sequence (6:§2.4). In practice, it is usually difficult to know whether a Subjunctive clause which *could* express purpose is, instead, simply expressing a consecutive action. The distinction is mainly a pragmatic one. Thus, the examples below, all of which are from texts, could potentially be translated as events in sequence ('bring water and I'll drink it', etc.) rather than as purpose. See 5:§2.4, esp. examples at end, for cases translated as consecutive but which could probably be translated as purpose as well.

tùway fíy wana mən sáw
bring-1mp gruel that I-Sjn drink

'bring the gruel *so that I can drink some*'

tsá-m aabíy nɣɣm ná kíy-ìɣm
give-me water your I-Sjn take-for you (fs)

'give me your water so that I can carry it for you'

Dóbə taatlən kúma jiy aaSáku, sáa'iy bá wár ,tòo, dè buwá-tlən àaSáku
game field their moreover Foc Saku time of festival well Sjn go-ICP Saku

də d'əma war.
Sjn do festival

'Their recreation area was Saku, (and) at the time of a festival, well, they would go to Saku to have their festival.'

Nominalized purpose phrase with *ée*

When the subject of the main clause and the subject of the purpose expression are the same, the purpose phrase can be a nominalized phrase introduced by *ée* (sometimes pronounced 'íy). *Ée* may be related to one of two other morphemes in Miya. One is the TAM auxiliary *ée*, associated with consecutive actions (§§3.2.2, 5:§2.2.3.4). More likely, however, is the pro-locative word *ée* 'the place of ..., where ...', discussed in 8:§6.3. All the sentences that I have found using *ée* purpose phrases have 'go' or 'come' as the main verb. These constructions may then derive from a more literal translation such as '... go to the place of ACTION'.²⁴

kóowènéekì aa b-uws *ée* tívi nuwsə
everybody Ipf go-ICP for strolling his

'everybody was going out for his stroll'

tòo, kwáa d'am(a) éewúya Màngila ba-tá suw 'iy ndámáka
well when arrive another (day) Mangila go-ICP Tot for circuit

'well, one day, Mangila went out to have a look around'

Māa bəla səbə niy aakám wiy ta jiy b-ùws *ée* tsəgaya tsəpər camàz-úw.
you(fs) tell people of house someone NEG Prt go-ICP for squatting urine night-NEG

'Tell the people of the house that no one should go out to urinate at night.'

fā bu-kú *ée* mdo?
you come-ICP for what

'why did you come?' (cf. 12:§2.2.8)

²⁴It is not uncommon for languages to use a directional locative construction to express purpose. For example, Ngizim uses the preposition *ti* 'to', which is suspiciously similar in form to Miya *ée*, to mark locative goal, indirect object, and purpose (Schuh 1972). What makes the Miya situation unusual is that there is no preposition used in either locative goal or indirect object constructions (11:§§1.3, 1.4.1).

Appendix I

PRONOUNS

Independent Pronouns (8:§1.1)

	Singular		Plural
1	món	1	míy
2m	fíy [f'wí:]	2	hón
2f	mácə/máciy		
3m	tá/tíy	3	tlón
3f	njə/njíy		

Verbal Subject Clitics (8:§1.2)

	Perfec- tive	Subjunc- tive	Negative Subjunc- tive	Focused Sub- ject Perf. I; Imperf. (w. no AUX)	Focused Subject Perf. II	Imperfective w. AUX	Condi- tional Future
1s	món	mèn	mèn ta	mèn aa	mèn dɔ	mèn + AUX	ná
2ms	fā	fāa	fā "	fíy "	fāa "	fāa "	fá
2fs	mà	māa	mà "	màc "	māa "	maa "	má
3ms	(à)	∅	də tíy tá	t "	tə "	tə "	(á)
3fs	(à)	(njə)	də njə "	nj "	njə "	njə "	(á)
1pl	míy	mìy	mìy tà	mìy "	míy "	miy "	yá
2pl	nà	nāa	hèn "	hèn "	hèn "	hən "	ná
3pl	((tlón) à)	(tlón) də	tlón tá	tlèn "	tlèn "	tlèn "	(á)

Intransitive Copy Pronoun Clitics (5:§4.1)

	Verbal TAM's (Perfective)		Nominal TAM's (Subjunctive)	
	H H Class	Other classes	H H Class	Other classes
	'X turned'	'X bathed'	'that X turn'	'that X bathe'
1s	món ghədzə-wán say	món bəsu-wan sáy	mèn ghədzə-wún	mèn bəsu-wun
2ms	fā ghədzə-kú say	fā bəse-ku sáy	fāa ghədzə-fə	fāa bəsa-fə
2fs	mà ghədzə-kən say	mà bəse-kən sáy	māa ghədzə-ghən [ghədzɣɣn] ¹	māa bəsa-ghən [bəsɣɣn] ¹
3ms	à ghədzə-tá say	à bəse-ta sáy	də ghədzə-uwsə	də bəse-uwsə
3fs	à ghədzə-tlá say	à bəse-tla sáy	də ghədzə-zá	də bəsa-za

¹The sequence /ghəC/ is realized phonetically as [ɣC]. See 2:§1.2.2.

Intransitive Copy Pronoun Clitics (cont.)

1 pl	míy ghədəza-má say	míy bàsə-má say	míy ghədz-aamá	míy bəs-aama
2 pl	nà ghədəza-ká say	nà bəsə-ka sáy	nàa ghədəza-ná	nàa bəsa-ná
3 pl	à ghədəza-tlən say	à bəsə-tlən sáy	də ghədəza-tlən	də bəsa-tlən

Direct Object Pronoun Clitics (5:§4.2)

Verbal TAM's (Perfective)		Nominal TAM's (Subjunctive)	
H H Class	Other classes	H H Class	Other classes
'he untied ...'	'he called ...'	'that he untie ...'	'that he call ...'
1 s	à bəta-wán say	à zar-wan sáy	də bətu-wún
2 ms	à bəta-fə say	à zar-fə sáy	də bəta-fə
2 fs	à bəta-ghón say [bətʃvɪn]	à zar-ghən sáy [zərɣɪn]	də bəta-ghón [bətʃvɪn]
3 ms	à bəta-yá say	à zar-ya sáy	də bət-uwsə
3 fs	à bəta-tlá say	à zar-tla sáy	də bəta-zá
1 pl	à bəta-má say	à zar-ma sáy	də bət-aamá
2 pl	à bəta-ná say	à zar-na sáy	də bəta-ná
3 pl	à bəta-tlən say	à zar-tlən sáy	də bəta-tlən

Indirect Object Pronoun Clitics (5:§4.3)

L Tone Class Verb		H L Tone Class Verb	
'he called the boy for ...'		'he got money for ...'	
1 s	à zar-a-n súw vək-áy	à mar-á-n súw mīr-áy	
2 ms	à zar-a-fə suw vək-áy	à mar-á-fə súw mīr-áy	
2 fs	à zar-a-ghón suw vək-áy [zərɣɪn]	à mar-á-ghən súw mīr-áy [mərɣɪn]	
3 ms	à zar-a-yá suw vək-áy	à mar-á-yə súw mīr-áy	
3 fs	à zar-a-tlá suw vək-áy	à mar-á-tla súw mīr-áy	
1 pl	à zar-a-ma súw vək-áy	à mar-á-ma suw mīr-áy	
2 pl	à zar-a-ná suw vək-áy	à mar-á-nà súw mīr-áy	
3 pl	à zar-a-tlən suw vək-áy	à mar-á-tlən súw mīr-áy	

Independent Genitive Pronouns (8:§1.4)

	SINGULAR				PLURAL		
	Masculine	Feminine	Plural		Masculine	Feminine	Plural
1	núwun	túwun	níywan	1	náama	táama	níyma
2m	náfə	táfə	níyfə	2	náana	táana	níynà
2f	nághəm [nɣɪm]	tághəm [tɣɪm]	níyim				
3m	núwsə	túwsə	níywasə	3	náatlən	táatlən	níytlən
3f	náazà	táazà	níyzà				

Direct Genitive Pronoun Clitics (10:§3.1.1)

	mbàdʃə (f) 'thigh'	ángár (f) 'leg'	ágam (f) 'jaw'	pəram (m) 'blood'	átín (m) 'nose'	ákyar (m) 'back'
1 s	mbàdʃəwun	ángarwùn	ágamuwun	pəramwan	átínwàn	ákyarwán
2 ms	mbàdʃafə	ángarəfə	ágamafə	pəramfə	átínfə	ákyarfə
2 fs	mbàdʃəghəm [mbàdʃɣɪm]	ángarəghəm [ángarɣɪm]	ágamaghəm [ágamɣɪm]	pəramghəm [pəramɣɪm]	átínghəm [átínɣɪm] ²	ákyarəghəm
3 ms	mbàdʃuwsə	ángarúwsə	ágamuwsə	pəranwasə	átínwasə	ákyarwasə
3 fs	mbàdʃaza	ángarəza	ágamazà	pəranza	átínzà	ákyarzà
1 pl	mbàdʃaama	ángarəama	ágamaama	pəramma	átímmà	ákyarma
2 pl	mbàdʃaná	ángarəná	ágamanà	pəranná	átínnà	ákyarnà
3 pl	mbàdʃatlən	ángarətlən	ágamatlən	pərantlən	átíntlən	ákyartlən

Linked Genitive Pronouns (10:§3.3.1)

Masculine		Feminine		Plural							
Singular	Plural	Singular	Plural	Singular	Plural						
1	núwun	1	náama	1	túwun	1	táama	1	níywan	1	níyma
2m	náfə	2	náana	2m	táfə	2	táana	2m	níyfə	2	níynà
2f	nághəm [nɣɪn]			2f	tághəm [tɣɪn]			2f	níyghəm [níyɣɪn] ²		
3m	núwsə	3	náatlən	3m	túwsə	3	táatlən	3m	níywasə	3	níytlən
3f	náazà			3f	táazà			3f	níyzà		

Demonstrative Adjectives and Pronouns (10:§2.2)

	Masculine	Feminine	Plural
Near	nákən	tákən	níykin
Far	náka	táka	níyka

Indefinite Adjectives and Pronouns (10:§2.3)

Masculine	wíy
Feminine:	wíya
Plural:	níywìy

²Underlying /gh/ is palatalized to [y] in the environment of morphological palatalization and/or /y/ (2:§1.2.2).

Appendix II

VERB CLASSES

The paradigms in this appendix illustrate all the forms characteristic for all the verb classes described in Chapter 4 and all the TAM's described in Chapter 5. They are divided into two large formal classes: *Verbal TAM's* and *Nominal TAM's* (see 5:§1 for this distinction). Within each of these paradigms, the verbs are listed according to the following eleven classes:

L Ca "L" MONOVERBS, 4:§1.2.3.4

H Ca "H" MONOVERBS, 4:§1.2.3.5

L CVCa "L" POLYVERBS of the final *a* class }
 { L CVC } "L" POLYVERBS of the final Ø class } 4:§1.2.3.1
 { L CVCə }

H H CVCa "H H" POLYVERBS of the final *a* class }
 { H H CVC } "H H" POLYVERBS of the final Ø class } 4:§1.2.3.2
 { H H CVCə }

H L CVCa "H L" POLYVERBS of the final *a* class }
 { H L CVC } "H L" POLYVERBS of the final Ø class } 4:§1.2.3.3
 { L H CVCə }

The CVC and CVCə examples of the "final Ø classes" are phonologically predictable variants, but both are included with Verbal TAM's to show how tones are distributed when the verb roots have one and two syllables respectively. With Nominal TAM's, all verbs have final *-a*, thus neutralizing all termination distinctions.

The citation form of the example verbs for each **Verb Class** is the gerund (4:§2.2). Gerunds are the simplest reference for tone class. For each class, there is a transitive verb to illustrate the form with no clitics (**Ø Object**), the **IO Pronoun** clitic, and the **DO Pronoun** clitic and an intransitive verb to illustrate the **Intransitive Copy Pronoun (ICP)**. Aside from Imperatives, which by definition can have only subjects which include 2nd person, the forms are those which would have a non-nominal 3rd masculine singular subject ('he VERB'). Type of subject never affects the form of the verb itself. The pronominal clitics are 3rd masculine singular in all cases except ICP for Imperatives, which, again, can have only 2nd person subjects. Tones on the 3rd masculine singular clitics are representative of tones for all clitics whose tones are determined by lexical verb tone rather than having inherent tone (see 4:§1.2.2 for tonal classes of clitics).

The illustrative TAM's are the following:

Verbal TAM's

Imperative (5:§2.1.1)

Perfective (5:§2.1.3)

Hortative (5:§2.1.3)

Nominal TAM's

Imperfective with Totality *s'...-áy* (5:§2.2.3.5)

Subjunctive (5:§2.2.2)

Perfective with focused subject (5:§2.2.1)

Negative Imperative/Hortative/Subjunctive (5:§3.3)

The only important TAM forms which are not included are the Counterfactual (5:§2.1.4) and the Conditional Future (5:§2.2.5), for which I do not have full paradigms. The negative Perfective (5:§3.1) is identical to the Perfective with *má* (COMPLEMENTS) *-úw* following the verb. Negative Imperfective (5:§3.4) is identical to the Imperfective illustrated here, but with the discontinuous negative *m'...-úw* replacing the *s'...-áy* Totality.

VERBAL TAMs

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Imperative • singular • 2 plural • 1 plural	L Ca	<i>tsàhiy</i> 'give' tsá tsíy tsíymá	tsá-yà tsíy-yà tsíymá-yà	tsà-yà tsíy-yà tsíymá-yà	<i>zàhiy</i> 'enter' zà-ku ziy-ka ziy-má
	H Ca	<i>kwáhíy</i> 'lack' kwáy ¹ kwíyà kwíymáy	γ ²	kwà-yà kwíy-yà kwíymá-yà	<i>tláhíy</i> 'stand up' tlá-kù tlíy-kà tlíy-má
	L CVCa	<i>tàkakə</i> 'accompany' tàka tàkiy tàkiymá	tàka-yá tàkiy-yá tàkiymá-yà	tàka-yà tàkiy-yà tàkiymá-yà	<i>tsəgakə</i> 'sit down' tsəga-ku tsəgiy-ka tsəgiy-má
	L CVC	<i>zàrakə</i> 'call' zàr zàriy zàriymá	zàra-yá zàriy-yá zàriymá-yà	zàr-yà zàriy-yà zàriymá-yà	<i>bàwakə</i> 'go out' bòo-ku bàwiy-ka bàwiy-má
	L CVCə	<i>bəsakə</i> 'wash' bəsə bəsíy bəsíymá	bəsə-yá bəsíy-yá bəsíymá-yà	bəsə-yà bəsíy-yà bəsíymá-yà	<i>bəsakə</i> 'bathe' bəsə-ku bəsíy-ka bəsíy-má
	H H CVCa	<i>bətakə</i> 'untie' bəta bətíy bətíymá	bəta-yá bətíy-yá bətíymá-yà	bəta-yà bətíy-yà bətíymá-yà	<i>ghədzakə</i> 'turn' ghədza-kú ghədziy-ká ghədziy-má

(continued on next page)

¹The Ø object forms of this verb include the Totality suffix *-áy* (7:§2). Vaziya would not give this verb in the affirmative Imperative without this suffix.

²*Kwá* 'lack' was the only transitive H class MONOVERB I found. Vaziya could make no sense of this verb with an Indirect Object.

	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Imperative (continued)	H H CVC	<i>bàlakó</i> 'chop' bàl bàlly bàliymá	bàla-yá bàliy-yá bàliymá-yà	bàl-yá bàliy-yá bàliymá-yà	<i>dzàrakó</i> 'scatter' ----- ³ dzàriy-ká dzàriy-má
	H H CVCə	<i>ràbakó</i> 'moisten' ràbə ràbly ràbiymá	ràba-yá ràbiy-yá ràbiymá-yà	ràbə-yá ràbiy-yá ràbiymá-yà	<i>ràd'akó</i> 'decay' ràd'ə-kú ràd'iy-ká ràd'iy-má
	H L CVCa	----- ⁴ -----	----- -----	----- -----	<i>sónáw</i> 'spend night' sóna-kù sóniy-kà sóniy-ma
/	H L CVC	<i>márákə</i> 'get' már márlly ⁵ [] márllymá []	márá-yà márlly-yà [] márllyma-yà []	márá-yà márlly-yà [] márllyma-yà []	<i>tsórákə</i> 'stop' tsór-kù tsórlly-kà ⁶ tsórlly-má []
	H L CVCə	<i>tófákə</i> 'shoot' tófə tófly [] tóflymá []	tófə-yà tófly-yà [] tóflyma-yà []	tófə-yà tófly-yà [] tóflyma-yà []	<i>'sáákə</i> 'be sated' 'səə-kù 'sólly-kà 'sólly-ma []

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Perfective	L Ca	<i>tsàhiy</i> 'give' à tsaa	à tsa-yá	à tsa-ya	<i>zàhiy</i> 'enter' à za-ta
	H Ca	<i>kwáhiy</i> 'lack' à kwaa	(see fn. 2)	à kwa-yá	<i>tláhiy</i> 'stand up' à tla-tá
	L CVCa	<i>tə̀kəkə</i> 'accompany' à təkə	à təkə-yá	à təkə-ya	<i>tsə̀gəkə</i> 'sit down' à tsə̀ga-ta
	L CVC	<i>zàrakə</i> 'call' à zar	à zara-yá	à zar-ya	<i>ghàrakə</i> 'grow old' à ghar-ta

³The only intransitive verb of this type that I found requires a plural subject.

⁴I found no transitive verbs and only two intransitive verbs in this class. The intransitive verb here is the only POLYVERB I found where a regular gerund (**sónakə*) was not accepted. The form *sónáw* is a deverbal noun (4:§2.3).

⁵See 4:§1.2.3.6.2 for the unusual contour tone associated with the plural Imperative suffix *-iy* with H L class verbs.

⁶The tones I transcribed for this form are HHL, as given here. Expected would have been HFL or H¹HL. This could be a transcription error—cf. 4:§1.2.3.6.2.

Perfective (continued)	L CVCə	<i>bəsakə</i> 'wash' à bəsə	à bəsa-yá	à bəsə-ya	<i>bəsakə</i> 'bathe' à bəsə-ta
	H H CVCa	<i>bə̀takə</i> 'untie' à bəta	à bəta-yá	à bəta-yá	<i>ghə̀dzakə</i> 'turn' à ghə̀dza-tá
	H H CVC	<i>bàlakə</i> 'chop' à bəl	à bəla-yá	à bəl-yá	<i>dzàrakə</i> 'scatter' à dzar-tlón (see fn. 3)
	H H CVCə	<i>ràbakə</i> 'moisten' à ràbə	à ràba-yá	à ràbə-yá	<i>ràd'akə</i> 'decay' à ràd'ə-tá
	H L CVCa	(see fn. 4) -----	-----	-----	<i>sónáw</i> 'spend night' à səná-tà
	H L CVC	<i>márákə</i> 'get' à már	à mará-yà	à már-yà	<i>tsórákə</i> 'stop' à tsór-tà
	H L CVCə	<i>tófákə</i> 'shoot' à tófə	à tófə-yá	à tófə-yà	<i>'sáákə</i> 'be sated' à 'əsə-tà

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Hortative	L Ca	<i>tsàhiy</i> 'give' tə tsa	tə tsa-yá	tə tsa-ya	<i>zàhiy</i> 'enter' tə za-ta
	H Ca	<i>kwáhiy</i> 'lack' tə kwa	(see fn. 2)	tə kwa-yá	<i>tláhiy</i> 'stand up' tə tla-tá
	L CVCa	<i>tə̀kəkə</i> 'accompany' tə təkə	tə təkə-yá	tə təkə-ya	<i>tsə̀gəkə</i> 'sit down' tə tsə̀ga-ta
	L CVC	<i>zàrakə</i> 'call' tə zar	tə zara-yá	tə zar-ya	<i>bàwakə</i> 'enter' tə boo-ta
	L CVCə	<i>bəsakə</i> 'wash' tə bəsə	tə bəsa-yá	tə bəsə-ya	<i>bəsakə</i> 'bathe' tə bəsə-ta
	H H CVCa	<i>bə̀takə</i> 'untie' tə bəta	tə bəta-yá	tə bəta-yá	<i>ghə̀dzakə</i> 'turn' tə ghə̀dza-tá
	H H CVC	<i>bàlakə</i> 'chop' tə bəl	tə bəla-yá	tə bəl-yá	<i>dzàrakə</i> 'scatter' tə dzar-tlón (see fn. 3)
	H H CVCə	<i>ràbakə</i> 'moisten' tə ràbə	tə ràba-yá	tə ràbə-yá	<i>ràd'akə</i> 'decay' tə ràd'ə-tá
	H L CVCa	(see fn. 4) -----	-----	-----	<i>sónáw</i> 'spend night' tə səná-tà
H L CVC	<i>márákə</i> 'get' tə már	tə mará-yà	tə már-yà	<i>tsórákə</i> 'stop' tə tsór-tà	
H L CVCə	<i>tófákə</i> 'shoot' tə tófə	tə tófə-yá	tə tófə-yà	<i>'sáákə</i> 'be sated' tə 'əsə-tà	

NOMINAL TAMs

TAM	Verb Class	Ø object ⁷	IO pronoun ⁷	DO pronoun	ICP
Imperfective (+ s'-...-áy Totality)	L Ca	<i>tsàhiy</i> 'give' tə s-áa tsáy	tə s-áa tsá-yà	tə s-áa ts-uws-áy	<i>zàhiy</i> 'enter' tə s-áa z-ùws-áy
	H Ca	<i>kwáhiy</i> 'lack' tə s-áa kwáy	(see fn. 2)	tə s-áa k-ùws-áy	<i>tláhiy</i> 'stand up' tə s-áa tl-ùws-áy ⁸
	L CVCa	<i>təkakə</i> 'accompany' tə s-áa təkáy	tə s-áa təká-yá	tə s-áa tək-uws-áy	<i>tsəgakə</i> 'sit down' tə s-áa tsəg-uws-áy
	L CVC(ə)	<i>bəsakə</i> 'wash' tə s-áa bəsáy	tə s-áa bəsa-yá	tə s-áa bəs-uws-áy	<i>bəsakə</i> 'bathe' tə s-áa bəs-uws-áy
	H H CVCa	<i>bətakə</i> 'untie' tə s-áa bətáy	tə s-áa bəta-yá	tə s-áa bət-uws-áy	<i>ghədzakə</i> 'turn' tə s-áa ghədz-uws-áy
	H H CVC(ə)	<i>bəlakə</i> 'chop' tə s-áa bəlay	tə s-áa bəla-yá	tə s-áa bəl-uws-áy	<i>rədəkə</i> 'decay' tə s-áa rəd-uws-áy
	H L CVCa	(see fn. 4)	-----	-----	<i>sənaw</i> 'spend night' tə s-áa sən-uws-áy
	H L CVC(ə)	<i>márákə</i> 'get' tə s-áa máráy	tə s-áa mára-yá	tə s-áa már-uws-áy	<i>tsárákə</i> 'stop' tə s-áa tsár-uws-áy

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Subjunctive	L Ca	<i>tsàhiy</i> 'give' də tsaw	də tsa-yá	də ts-uwsə	<i>zàhiy</i> 'enter' də z-uwsə
	H Ca	<i>kwáhiy</i> 'lack' də kwaw	(see fn. 2)	də k-uwsə	<i>tláhiy</i> 'stand up' də tl-uwsə
	L CVCa	<i>təkakə</i> 'accompany' də takaw	də təká-yá	də tək-uwsə	<i>tsəgakə</i> 'sit down' də tsəg-uwsə
	L CVC(ə)	<i>bəsakə</i> 'wash' də bəsaw	də bəsa-yá	də bəs-uwsə	<i>bəsakə</i> 'bathe' də bəs-uwsə
	H H CVCa	<i>bətakə</i> 'untie' də bəlaw	də bəta-yá	də bət-uwsə	<i>ghədzakə</i> 'turn' də ghədz-uwsə
	H H CVC(ə)	<i>bəlakə</i> 'chop' də bəlaw	də bəla-yá	də bəl-uwsə	<i>rədəkə</i> 'decay' də rəd-uwsə
	H L CVCa	(see fn. 4)	-----	-----	<i>sənaw</i> 'spend night' də sən-úwsə
	H L CVC(ə)	<i>márákə</i> 'get' də maráw	də mará-yá	də mar-úwsə	<i>tsárákə</i> 'stop' də tsər-úwsə

⁷The Ø object and IO pronoun object forms both end in -a and the Totality suffix is -ay. The abutting a's coalesce to give "Cay". There is no non-arbitrary way to decide where the morpheme boundary is, so I have written these forms with no morpheme division between verb form and Totality suffix.

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Perfective w. focused subject	L Ca	<i>tsàhiy</i> 'give' tə dós tsáw	tə dós tsa-yà	tə dós ts-ùwsə	<i>zàhiy</i> 'enter' tə dós z-ùwsə
	H Ca	<i>kwáhiy</i> 'lack' tə dós kwáw	(see fn. 2)	tə dós kw-uwsə	<i>tláhiy</i> 'stand up' tə dós tl-ùwsə ⁸
	L CVCa	<i>təkakə</i> 'accompany' tə dós təkaw	tə dós təká-yá	tə dós tək-uwsə	<i>tsəgakə</i> 'sit down' tə dós tsəg-uwsə
	L CVC(ə)	<i>bəsakə</i> 'wash' tə dós bəsaw	tə dós bəsa-yá	tə dós bəs-uwsə	<i>bəsakə</i> 'bathe' tə dós bəs-uwsə
	H H CVCa	<i>bətakə</i> 'untie' tə dós bəlaw	tə dós bəta-yá	tə dós bət-uwsə	<i>ghədzakə</i> 'turn' tə dós ghədz-uwsə
	H H CVC(ə)	<i>bəlakə</i> 'chop' tə dós bəlaw	tə dós bəla-yá	tə dós bəl-uwsə	<i>rədəkə</i> 'decay' tə dós rəd-uwsə
	H L CVCa	(see fn. 4)	-----	-----	<i>sənaw</i> 'spend night' tə dós sən-úwsə
	H L CVC(ə)	<i>márákə</i> 'get' tə dós maráw	tə dós mará-yá ⁸	tə dós mar-úwsə ⁸	<i>tsárákə</i> 'stop' tə dós tsər-úwsə ⁸

TAM	Verb Class	Ø object	IO pronoun	DO pronoun	ICP
Negative Hortative/ Imperative/ Subjunctive	L Ca	<i>tsàhiy</i> 'give' fà ta tsá-w tá tsá-w	fà ta tsa-yà-w tá tsa-yà-w	fà ta ts-úws-úw tá ts-úws-úw	<i>zàhiy</i> 'enter' fà ta zaa-f-úw tá z-úws-úw
	H Ca	<i>kwáhiy</i> 'lack' fà ta kwáw tá kwá-w	(see fn. 2)	fà ta kw-uws-úw tá kw-uws-úw	<i>tláhiy</i> 'stand up' fà ta zaa-f-úw tá z-úws-úw
	L CVCa	<i>təkakə</i> 'accompany' fà ta təká-w tá təká-w	fà ta təká-yá-w tá təká-yá-w	fà ta tək-úws-úw tá tək-úws-úw	<i>tsəgakə</i> 'sit down' fà ta tsəgá-f-úw tá tsəg-uws-úw
	L CVC(ə)	<i>bəsakə</i> 'wash' fà ta bəsá-w tá bəsá-w	fà ta bəsa-yá-w tá bəsa-yá-w	fà ta bəs-uws-úw tá bəs-uws-úw	<i>bəsakə</i> 'bathe' fà ta bəsa-f-úw tá bəs-uws-úw
	H H CVCa	<i>bətakə</i> 'untie' fà ta bəta-w tá bəta-w	fà ta bəta-yá-w tá bəta-yá-w	fà ta bət-uws-úw tá bət-uws-úw	<i>ghədzakə</i> 'turn' fà ta ghədzá-f-úw tá ghədz-uws-úw
	H H CVC(ə)	<i>bəlakə</i> 'chop' fà ta bəlá-w tá bəlá-w	fà ta bəla-yá-w tá bəla-yá-w	fà ta bəl-uws-úw tá bəl-uws-úw	<i>rədəkə</i> 'decay' ----- tá rəd-uws-úw
	H L CVCa	(see fn. 4)	-----	-----	<i>sənaw</i> 'spend night' fà ta ghədzá-f-úw tá ghədz-uws-úw
	H L CVC(ə)	<i>márákə</i> 'get' fà ta mará-w tá mará-w	fà ta mará-yá-w tá mará-yá-w	fà ta mar-úws-úw tá mar-úws-úw	<i>tsárákə</i> 'stop' fà ta tsəra-f-úw tá tsər-úws-úw

⁸The final L is probably a transcription error for downstepped H—cf. *tə dós b-uwsə* 'HE went'. The final L domain shown for the H L CVC(ə) verbs may be the same error—cf. the Negative Hortative counterparts.

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