Mouton Grammar Library

Frajzyngier
A Grammar of Hdi

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Acknowledgments

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Abbreviations

Abbreviations used in morpheme-by-morpheme glosses and in formulas:

1	First person
2	Second person
3	Third person
ABS	Absolutive extension
ADJ	Adjective
ADV	Adverb
AGAIN	Verbal extension coding repetition of the action
ALL	Allative
ALSO	Verbal extension coding the truth of the proposition compared to a previous propositions
APPL	Applicative
ASSC	Associative
AWAY	Extension coding movement away
BEN	Benefactive/dative
COLL	Collective
COM	Comment on the focus marker, particle *tá*
COMP	Complementizer
COMPL	Completive
COND	Conditional
CONJ	Conjunction
COP	Copula
DEF	Definite
DEM	Demonstrative
DOWN	Movement down extension
D:PVG	Distal extension: Point of view of goal
D:SO	Distal extension: Point of view of source
DU	Dual
Eng.	English
EP	Epenthetic
EXCL	Exclusive
FOR	Preposition coding benefactive/dative
Fr.	French
Ful.	Fula (Fulfulde)
FUT	Future
GEN	Genitive

GO	Goal orientation
Hau.	Hausa
HON	Honorific
HYP	Hypothetical
IMP	Imperative
IMPF	Imperfective
IN	Verbal extension indicating movement inside
INN	Extension coding movement to or from an inner space
INCEPT	Inceptive
INCL	Inclusive
INTERJ	Interjection
INV	Inverse
LOC	Locative
N	Noun
NEG	Negation
NOM	Nominalized
NORM	Normative
OBJ	Object marker
OUT	Verbal extension indicating movement from inside out
PART	Partitive
PAST	Past (Referential past tense)
PL	Plural
PO	Potential object extension -*ay*
POL	Polite form
PREP	Preposition
PROH	Prohibitive
PURP	Purpose
PVG	Point of view of goal
Q	Interrogative
QUANT	Quantifier
REF	Referential
REL	Relative
RESP	Respect
RHET	Rhetorical
S	Sentence
SEQ	Sequential marker
SG	Singular
SO	Point of view of source
STAT	Stative
SUBJ	Subjunctive

TENT	Tentative
UH	Unspecified human subject
UO	Unspecified object
UP	Verbal extension indicating movement upward
V	Verb
VN	Verbal noun

The following typographical conventions have been adopted: The Hdi and other foreign language material in the text is italic. Translations are in single quotation marks. Quoted speech within examples is in double quotation marks. The rare instances of emphasis in the text are marked by italics. Abbreviations in examples are in small capitals.

Chapter 1

Introduction

1. The name and the classification of the language

The language described in the present grammar is called by its speakers *gwád-á xdí* 'language of Hdi' or simply *xdí*. The language is variously reported in the literature as *Hide, hidé* (Eguchi 1971), *Xedi* (Newman 1990a), and *xədi* (Dieu and Renaud 1983). Hoffmann 1971 has it as Tur (Turu), i.e. under the English spelling of the name of the village where the language is spoken.

The language is spoken in Tourou and surrounding settlements in the Far North Province of Cameroon, on the border with Nigeria. Some speakers of Hdi have emigrated to Nigeria, specifically to Mubi and Yola, where the Hdi communities may number several thousand speakers. Our cursory observation of the speech of speakers of Hdi who have spent a long time outside of their community, whether in Nigeria or in Cameroon, indicates considerable changes in syntax. Simple clauses shift toward subject-verb-object order; complex sentences with verbs of saying very often have the clausal order matrix-embedded. Neither of these orders is characteristic of the Hdi spoken in Tourou, but they are found in many languages with which Hdi speakers come in contact.

The noun *xdí* is a Hdi place name for the administrative term *Tourou*. It is also the self-name of the language and the ethnonym. The evidence that it is a toponym is provided by the high tone on the locative preposition *dá* preceding it. Before nouns other than toponyms the preposition has low tone:

(1)   *dzà'á   dá   xdí*
        go   PREP   xdi:1SG
        'I am going to Hdi'

Evidence that *xdí* is an ethnonym is provided by genitive constructions where it is a modifier:

(2)   *xídákw-á   xdí*
        culture-GEN   Hdi
        'The culture of Hdi'

The evidence that *xdí* is also the name of a language is provided by its usage without the expression *gwád-á* 'language of':

(3) | *tà* | *ghwá* | *tà* | *xgù-lú* | *kà* | *Kwindzílá* | *gà* |
     | PREP | mountain | IMPF | call-UH | as | Kwindzila | in |
     | *xdí* | *yá* | | | | | |
     | Hdi | DEM | | | | | |

'On the mountain called Kwindzila in Hdi'

Other Chadic languages have words that may be cognates of the word *xdi*, e.g. *hìdé* 'man' in Mina, Central Chadic. Given the fact that so many self-names around the world are based on the lexemes 'man, people', it is likely that a word meaning "man" was the source from which contemporary [xdi] derives.

The name *hidé* has been used in administrative documents in reference to the people who speak the language. We represent the language in the present work as Hdi, with the understanding that the initial *h* represents a velar voiceless fricative. This is the closest transcription of the pronunciation of the word and also matches its phonemic structure, consisting of an initial consonantal cluster followed by a high front vowel.

Eguchi 1971 gives the number of speakers, as per the 1962 census, as 5,963. Newman 1990a gives the number of speakers as 10,000 as of 1982. Hdi is used in local elementary schools only in the first grade, as is the norm with most indigenous languages in Cameroonian public schools.

Hdi belongs to the Mandara group of the Central (Biu-Mandara) Branch of Chadic (Newman 1990a, Dieu and Renaud 1983). Wolff (1981 and 1983) considers it to be a dialect of Lamang but does not support this claim with any argumentation. Dieu and Renaud (1983: 357) list it as a separate language belonging to the Western Branch of the Wandala (Mandara) subgroup. Eguchi (1971: 195) also considers Hdi to be an independent language, stating the lack of mutual intelligibility between Hdi and the surrounding languages, including the language of Ngosi (Lamang according to Wolff 1983) in Nigeria. Tests of mutual intelligibility between Hdi and Lamang conducted by SIL teams have demonstrated that there is no intelligibility between these languages (Stadler 1993).

According to oral history, the population of Hdi was established by Matsa and his son Gulu. Matsa was one of the twelve sons of Kɗeri. The other children of Kɗeri are said to have founded Kapsiki, Margi, Mabas, Gdalu or Gdolu, Xduvun, and other places. This oral history is interesting because the first three of these groups speak languages belonging to the same branch as Hdi, Central Chadic.

Fula (Fulfulde) and, to a lesser extent, Hausa are the second and third languages for many speakers of Hdi. Hdi maintain trade relations also with speakers of Kanuri (Nilo-Saharan), trading guinea corn for beans. Fula, Hausa, as well as Mafa, another Central Chadic language, are the principal sources of lexical borrowings into Hdi.

Data for the present grammar were gathered and rechecked in the field by Frajzyngier during the summer of 1991, spring of 1993, and summers of 1994, 1996, 1997, 1998, and 1999. The language assistants for this study were Romain Siloa Mbaka (born in 1970, completed first year of lycée in Mokolo); the late Patrice Douka Prafé (born in 1972, some education at the lycée at Mokolo); Roger Prafé (no relation to Patrice Douka Prafé; born in 1975, educated at the lycées in Mokolo and Maroua, speaking Hdi at home); Abel Ndjidda Kassie (born in 1970); Francis Barassoua Baigoua (born in 1971); Sikoa Sinowa (about 30 years old in 1996); and Benjamin Ngasnou (born in 1959). Benjamin Ngasnou spent six years teaching elementary school in Mokolo, four years teaching in Yagua, two years teaching in Tourou (Hdi), and twelve years teaching in Maroua. His wife is from Tourou, and at home they speak Fula and Hdi.

Erin Shay participated in the work on this grammar from 1992 to 1995. She then had to devote herself to another project, and Frajzyngier alone gathered additional texts, revised the grammar, and brought it to its present shape; he takes responsibility for all mistakes and errors.

We have been using two types of data: natural discourse data as occurring in narratives, conversations, and folktales; and elicited data. Examples from natural discourse data begin with a capital letter, regardless of whether they represent sentence initial fragment. The elicited data are used in as few structures as possible to illustrate complex morphological and morpho-phonological facts of the language and also to provide ungrammatical examples when necessary. Such examples begin with lower case letters.

Although the number of speakers of Hdi is small and the language is spoken in a relatively constrained area, there are nevertheless some dialectal differences. We did not have the opportunity to study the dialect situation in detail, but we would like to note the following observations. In the dialect closer to the center of the village the future marker is *dzà'á*, while in the slightly more remote area called *ndrúk*, it is *dà*. The first-person singular subject pronoun is *í* in the center, but *íyù* in the dialect of the more remote area.

The aim of this work is descriptive and explanatory. The description consists of hypotheses concerning the form of linguistic structures and hypotheses concerning the functions of linguistic structures. For both types of hypotheses we provide supporting argumentation and often evi-

dence. On the sound advice of Bernard Comrie, we refrained from drawing implications for past and current theoretical controversies in linguistics. We tried, however, space permitting, to explain various components of grammar through their relationship to other constructions or subsystems in the language.

The present study aims to be a reference grammar. Its scope includes phonetics, phonology, morphology, and syntax and the semantic functions coded by these means. The complex verb morphology and the rich system of syntactic construction constitute the bulk of the present work. The grammar is the first account of the grammatical system of this language. A number of phenomena it describes have not yet been described for any of the Chadic languages of the Mandara mountains, such as Lamang (Wolff 1983), Mandara (Mirt 1969/1970, Frajzyngier 1984), Mafa (Barreteau and le Bleis 1990), Mofu-Gudur (Barreteau 1988), and Ouldeme (de Colombel 1996). The grammar thus provides valuable material for a future comparative work in Chadic and Afroasiatic linguistics. For a general linguist it provides a source of information on unusual formal structures and the semantic functions they encode.

2. Typological characteristics of Hdi

2.1. Phonology

An interesting aspect of Hdi phonology is its syllable-structure conditions. The syllabic onset allows for much more variation than the syllabic coda. Clusters of two and three consonants are allowed in the syllabic onset, while no clusters of consonants (with one possible exception: see Chapter 2) are allowed in the syllabic coda. Moreover, in the syllabic coda (as opposed to simply the word-final position), all obstruents become voiceless, regardless of the voice characteristics of the consonants that follow them. Clusters of up to three rearticulated vowels are allowed. In phrase-internal position, vowels that do not have a grammatical function are deleted. When a vowel is deleted, its tone is also deleted. A vowel that replaces another in a sequence assumes the tone of the vowel it replaces; its own tone is deleted.

2.2. Morphology

The lexical categories of Hdi are nouns (including pronouns), verbs, a few inherent adjectives and adverbs, and interjections. The class of nouns

includes a set of independent pronouns that behave like full nouns. Most property concept words that have not been lexicalized as adjectives require genitive markers in modifying constructions. Most adverbs, and a few property concept words, are formed through reduplication of nouns or verbs.

The verbal predicate can include inflectional morphemes coding: the number of arguments; the semantic roles of the arguments; the spatial relations between the event and the place of speech; the direction of movement; the nature of the event (singular or plural); the plurality of the object; the point of view; and the referentiality of the event. Tonal changes code the distinction between dative and direct object pronouns.

A very salient feature of Hdi morphology, one that it shares with other languages of the Mandara group, is the existence of a rich system of verbal extensions that interact with inherent properties of verbs, with syntactic coding means, with arguments present in the clause, and with each other. Some verbal extensions have segmental structures identical with locative prepositions; others have non-locative sources.

The reduplication of lexical items is a morphological means whose functions differ depending on the lexical category being reduplicated. Reduplicated property concept words may form adverbs. Reduplication of numerals has a distributive function indicating that each of the individual members of the numeral is a participant in the event. The reduplication of verbs, alone or combined with other grammatical markers, is involved in the formation of aspects. Indirect object pronouns and verbal extensions are infixed between the reduplicated parts of the verb.

Nominal inflection is quite limited. The only inflectional markers we found on nouns are the sporadically used plural marker, a genitive marker that originated as a demonstrative and that is phonologically connected to a preceding noun, and certain tonal changes in genitive constructions.

2.3. Syntax

In pragmatically and semantically unmarked constructions, i.e. constructions that do not involve topicalization, focus, or role-changing markers, the language is head first and nominative-accusative. In many such constructions the predicate, whether nominal or verbal, precedes the subject and object, if any. When the predicate is verbal, the word order is verb-subject-preposition-object, i.e., the subject follows the verb and the object is marked by the preposition *tá*.

The following are some of the most salient characteristics of Hdi syntax: (1) There are two types of clauses, pragmatically independent and

pragmatically dependent, each having different formal properties. Pragmatically independent clauses are those that can be interpreted on their own, without any presuppositions. Pragmatically dependent clauses require specific presuppositions for their interpretation. The two types of clauses are distinguished by verbal forms, aspectual markers, and subject pronouns. Typically, pragmatically independent clauses are simple affirmative indicative clauses, and about truth (yes/no questions). Pragmatically dependent clauses are negative clauses, specific interrogative clauses ('wh'-questions), comments on focused elements, relative clauses, and a host of syntactically dependent clauses. (2) Hdi has two ways of coding the third-person singular subject, depending on the type of clause and on the aspect of the clause. (3) Subject pronouns are clitics that can be added to verbs or to complements. (4) There exist several means of coding pronominal objects, depending on the class of verbs involved and the aspect of the clause. (5) There is tight interdependency between morphological means of argument coding and configuration. (6) Clausal order is used for the coding of modality.

Three means are involved in the coding of grammatical relations: position with respect to the verb, extensions to the verb, and prepositions. The use of these means interplays with the coding of aspect and the pragmatic type of the clause. There is no one-to-one relationship between a given coding means and the grammatical role it codes. The grammatical role of a noun phrase is the result of interplay among the various coding means used in a given structure. Thus, the position after the verb—the most neutral coding device—may be occupied by the subject of a transitive or an intransitive verb. In focus constructions, the position before the verb may be occupied by either the subject or the object in focus. Which argument occupies which position is determined in part by the way the other arguments are coded and in part by the way in which aspect is coded. These facts argue for assuming the existence of several phrase-structure rules for various functional domains, such as the indicative clause, focus, and others.

Semantic relations between verbs and arguments are coded by a system of verbal extensions. Instead of postulating the existence of unitary semantic roles such as "agent" or "patient", our analysis points to a coding of a semantic relationship consisting of a cluster of features. There are two fundamental categories coded in the grammatical system of Hdi: source-oriented and goal-oriented. Various combinations of the two categories may result in the representation of an event as being [+source oriented, -goal oriented], [+goal oriented, +source oriented], or [+goal oriented, -source oriented]. Depending on the inherent meaning of the verb, these various representations of the event allow for the interpretation of various

arguments as [+affected, +control], [+control, -affected]. Subject control is coded by the point-of-view-of-goal marker *a*, subject affectedness is coded by the point-of-view-of-source marker *u*. Goal orientation is coded through tonal means whether the event is represented from the point of view of goal or not.

Negative clauses can be either pragmatically independent or pragmatically dependent. The two types of clauses have different formal characteristics.

Topicalization differs from focus constructions in that the comment clause on a topicalized element is pragmatically independent, and the comment clause on an element in focus is pragmatically dependent. Relative clause constructions are in many respects identical with focus constructions in that the relative clause is identical with the comment-on-focus clause. Relative clauses encode the existential status of the head noun.

The verb "to say" is omitted from most complex sentences in natural discourse, leaving only the complementizer.

Complex sentence structure employs clausal order to code a difference between *de dicto* and *de re* complements. *De dicto* complement clauses precede the matrix clause, while *de re* complements follow the matrix clause. Subject-to-object raising, or encoding the semantic subject of the complement clause as the object of the matrix clause, is a coding means whose specific function depends on the inherent properties of the verb. Complement clauses also differ from matrix clauses in the system of aspect coding.

We have tried, as much as possible, to provide sources of grammaticalization for each grammatical category. We do this not only because of historical interest but also because an understanding of the sources of grammatical constructions may explain their contemporary form and some of their properties.

2.4 . Discourse structure

It has been claimed (DuBois 1985 and his other writings) that clauses with two full noun phrases are extremely rare in natural discourse. Although we did not conduct a systematic study of discourse, the sample of texts included in the present grammar does not bear out this generalization. Another generalization about discourse is that when a verb appears with a single noun phrase, that noun phrase usually represents the object rather than the agent. This generalization is also not supported by Hdi discourse. When a new noun has been introduced by an intransitive verb, the full noun may occur in the next clause of the same sentence with another in-

transitive verb or with a transitive verb, regardless of the grammatical role of the noun.

Chapter 2

Phonology

1. Introduction

Our aim in the description of the phonology of Hdi is to provide the main principles of the formation of lexical and grammatical morphemes and the rules for the phonetic realization of these morphemes. Accordingly, we provide an inventory of underlying segments and rules about their phonetic realizations. Two factors affect the phonotactics of consonants and vowels in Hdi: syllable structure constraints, and conditions on sequences of consonants and vowels independent of the syllable structure. Certain phonological rules whose scope is limited only to specific morphemes are discussed when the phonetic realization of these morphemes is described. One of these rules is the insertion of a nasal before pronouns beginning with a vowel.

We also describe the function of phonology in the coding of the syntactic organization of language.

2. Consonantal system

2.1. Phonetic consonants

The consonantal inventory includes: glottalized consonants, lateral fricatives, prenasalized stops, simple stops, affricates, and continuants. All series except for glottalized consonants have voiced and voiceless contrasts.

We use the following graphic conventions. In the examples used throughout this sketch, we represent the voiced lateral continuant ɮ as *zl*, in agreement with orthographies used for Cameroonian languages. However, we represent the voiceless counterpart ɬ as *hl* rather than *sl*, as usually represented in Cameroonian language orthographies, because the sequence consisting of the alveolar voiceless continuant and the lateral

liquid *sl* actually occurs in Hdi. Both voiced and voiceless lateral continuants impressionistically end with a stop, voiced and voiceless respectively. Hdi shares this characteristic, not otherwise noticed in the study of lateral continuants, with a number of other Chadic languages spoken in northern Cameroon.

The digraphs *ts* and *dz* represent voiceless and voiced affricates. For purely orthographic reasons we have chosen to represent the voiced velar continuant *γ* as *gh*.

The full phonetic inventory, which does not include sounds found in borrowed words, is represented in Table 1.

Table 1. Inventory of phonetic consonants

	Bilabial	Labial	Alveolar	Palatal	Velar
Stops					
Voiced	*b*		*d*		*g*
Voiceless	*p*		*t*		*k, kw*
Prenasalized	*mb*		*md, nd, ndz*		*ng*
Glottalized	*ɓ*	*'w*	*ɗ*	*'y*	
Affricates					
Voiced			*dz*	*dž*	
Voiceless			*ts*	*č*	
Continuants					
Voiced	*ß*	*v*	*z*	*ž*	*gh*
Voiceless	*f*	*f*	*s*	*š*	*x*
Lateral Cont.					
Voiced			*ɮ*		
Voiceless			*ɬ*		
Nasals	*m*		*n*		*ŋ*
Liquid[s]			*r*		
			l		
Glides	*w*			*y*	

2.2. Underlying consonants

Table 2 represents a hypothesis with respect to the inventory of underlying consonants. In the discussion that follows the Table 2 we provide evidence for the phonological status of segments.

Table 2. Inventory of underlying consonants

	Bilabial	Labial	Alveolar	Palatal	Velar
Stops					
Voiced	*b*		*d*		*g*
Voiceless	*p*		*t*		*k*
Prenasalized	*mb*		*md, nd*		*ng*
Glottalized	*ɓ*		*ɗ*		
Affricates					
Voiced			*dz, ndz*		
Voiceless			*ts*		
Continuants					
Voiced		*v*	*z*		*gh*
Voiceless		*f*	*s*		*x*
Lateral Cont.					
Voiced			*ɮ*		
Voiceless			*ɬ*		
Nasals	*m*		*n*		*ŋ*
Liquids			*r*		
			l		
Glides	*w*			*y*	

2.2.1. Bilabial versus labial consonants

Contrast among labial and labiodental underlying segments is provided by the following items: *bízì* 'pubic apron worn by young women', *pìtsákw* 'hoe', *fitík* 'sun', *tìví* 'road', *víxà* 'sift', *púrkútú ndzúm* 'papaya', *hlɔ́rpú* 'side', *tf-ú-ú-ghá-tfà-lú* 'one has spit'.

A number of segments from the phonetic inventory appear to be in complementary distribution. The bilabial voiceless fricative has been recorded only in word-initial position when followed by a bilabial glide and vowel *a*: [*fwáɗ*] 'four'. The labiodental [f] occurs in many environments, including the word-initial and word-final position: *fá-m-tà* 'put inside', *fitík* 'sun, time, day'. We postulate that the bilabial voiceless fricative is a variant of the labiodental fricative, derived by the rule:

Rule 1:   f   → *f*/ ___ [+round].

The rule states that the labiodental continuant becomes bilabial when followed by either a round vowel or a labial glide. There are no instances of [f] followed by a round vowel in the data. The bilabial voiced continuant has been recorded only in some pronunciations of *v* when surrounded by the high round vowel [u]. Thus there is a variant of the word *dżvú*: [jùßú]

'hand'. We postulate that [ß] is a variant of *v* whose occurrence can be accounted for by the rule:

Rule 2:   v   →   ß/u___u.

All bilabial fricatives will henceforth be represented as *f* or *v*.

2.2.2. Alveolar consonants and palatal variants

There is a contrast between alveolar voiced and voiceless stops before all vowels:

(1)   *tà*   'locative adjunct'   *dà*   'preposition'
      ûm   'big drum'   *xdí*   'self-name'
      tùrtúkw 'one'   *dùssúm*   'root'

Similarly, there is a contrast between alveolar voiced and voiceless affricates:

(2)   *tsá*   'definite marker'   *dzà'á*   'go'
      tsí   'third singular subject' *vdzí*   'monkey'
      tsúdáy   'dangerous animals'   *dzúmá*   'hay'

There is also a contrast between voiced and voiceless alveolar continuants:

(3)   *sá*   'come'   *zá*   'eat'
      sí   'referential past marker' *zídìkw* 'fly'
      sù   'drink:SO'   *zù*   'eat:SO'

The palatal continuants *š* and *ž* occur only when followed by front vowels: [gážéngèl] and [géžéngèl] 'a piece of metal, many of which form the pubic apron of a pregnant woman'. We have in our data a few instances of the prepalatal continuants *ç* : [xəç] 'two', in lento speech [xìis]. We therefore take the palatalization of the final consonant to be caused by the preceding long high vowel, which is subsequently shortened to ə in a closed syllable. The palatalization of alveolar fricatives may be caused therefore be the a preceding or a following front vowel:

Rule 3:   [+alveolar] [+cont]   →   [+pal]/V[+front].

The rule of palatalization operates only when both the front vowel and the alveolar consonant belong to the same morpheme. The rule does not operate across morpheme boundaries. Thus when the verb *sà* 'drink' is followed by the object *ìmí* 'water', the final vowel of the verb is replaced by the first vowel of the noun, resulting in the phonetic structure [sìmí], not [s̀ìmí] 'drink water'. Since palatal continuants can be derived by rules, we postulate them to be variants of the underlying alveolar continuants [s] and [z].

Alveolar affricates become palatalized when followed by a high vowel. The rule is obligatory for the high front vowel and optional for the high round vowel. Thus [ts] becomes [c] and [dz] becomes [j] before [u] or [i]:

(4) *dz-ù-dʼú-s-dzà* → [*j*-ù-dʼú-s-dzà], [dz-ù-dʼ-ús-dzà]
     hit-SO-1SG-INV-hit
     'he slapped me' (cf. *dzà* 'hit')

tsí	→	[cí]	'third person singular subject'
jíbìl			'outdoors' may well be underlyingly *dzíbì*
dźvú			after optional vowel insertion → [jùßú] 'hand'

Again, *s* does not palatalize even though it is preceded by a high front vowel. The absence of palatalization is explained by the morpheme boundary's occurring between the two segments. Eguchi 1971 does not make a distinction between palatal and non-palatal voiced and voiceless affricates, and represents them all as *j* and *c* respectively.

2.2.3. Velar consonants

There is a contrast between velar voiced and voiceless stops:

(5) | *kà* | 'sequential marker' | *gà* | 'preposition' |
     |---|---|---|---|
     | *kì'yá* | 'small' | *gìgdʼá* | 'mix' |
     | *kúm* | 'want' | *gù* | 'goat' |

The labialized velar [kw] occurs in both word-initial and word-final position. In the latter position it is in contrast with the velar stop [k]:
Word initial:

(6)   *k*   *kw*

     ká   'complementizer'   *kwá*   'calabash'

     kí   'how'   *kwítìkw*   'small'

                                                kwálá   'lack, fail'

Word final

(7)   *m̀ták*   'bush'   *ghàtálàkw*   'chicken'

     gúɗúk   'together'   *téekw*   'one'

     vàzák   'rooster'   *pìtsákw*   'hoe'

     tákázák   'man's leather   *tùrtúkw*   'alone'

                    garment'   *kítìkw*   'small'

We analyze the labialized velar as the result of high back vowel reduction in word-final position. This reduction applies only to low tone syllables. The rule of labialization could be formulated as follows:

Rule 4:   ù → w/C[+velar] ___ #.

The instances of *kú* in word-final position have high tone: *mùkú* 'six', *rákú* 'proper name, feminine'. A cluster analysis of *kw* cannot be maintained, as there are no other word-final clusters in Hdi. Therefore, we postulate *kw* as resulting from labialization of the high back vowel following a velar consonant. Some words in the right-hand (kw) column above are actually pronounced with either a high back vowel or the labial glide: *kítìkw* and *kítíkù* 'small'.

    Despite the analysis that derives *kw* from *kù*, we represent the segments as *kw* so as to reflect the phonetic realization and phonetic changes that have taken place. Further support for the proposed hypothesis about the origin of *kw* comes from a more general rule of labialization, as discussed below.

    The contrast between the voiceless and voiced velar fricatives *x* and *gh* has been recorded in word-initial and intervocalic position. Both consonants can also occur in clusters with other consonants, stops and continuants alike, but not with each other, thus **xgh* and **ghx*. Members of these clusters have different values for the feature voice. As is the case with other obstruents, there is no voicing contrast in the word-final position. We postulate both *x* and *gh* as underlying segments:

(8) | | Voiceless | | Voiced | |
| --- | --- | --- | --- | --- |
| Initial | *xkán* | 'three' | *ghə́n* | 'head' |
| | *xdí* | 'Hdi' | *ghùáŋ* | 'ten' |
| Medial | *m̀ndú-xà* | 'men' | *tghás* | 'eight' |

A velar continuant may be palatalized when followed by the palatal glide:

(9)   *yá*   *vwàx*   *yá*   →   [yá vwàxyá] and [yá vwàx'yá]
       DEM   field   DEM
       'that field'

       ɓáɓáx   yá   →   [ɓáɓáxyá] and [ɓáɓàx'yá]
       shoe   DEM
       'that shoe'

2.2.4. Prenasalized and glottalized stops and affricates

In word-initial position there is a contrast between voiced, voiceless, prenazalized, and glottalized series. Contrast alone, however, is not a sufficient criterion to postulate prenasalized stops as underlying segments. In view of the rich variation in consonant clusters in word-initial and medial positions, one has to decide whether what appears as a prenasalized stop [nd] (or prenasalized affricate [ndz]) is a single underlying segment or a cluster of two segments. One criterion could be the role of the segment as a tone-bearing unit. If a nasal is a tone-bearing unit, we postulate it to be a separate segment. Another criterion is the length of the consonants in lento speech. If, in lento speech, the speaker separates the nasal from the following stop, we consider the nasal to be a separate segment. If the speaker does not separate the nasal from the following stop, we consider the two to be components of one underlying segment, a prenasalized stop. These two criteria have proven to be quite useful. For example, there exist the words *ǹndú* 'man' (which was recorded with low-high tone sequence as represented) and *mbítsá* 'proper name, masculine'. Either word could begin with a prenasalized stop or a consonant cluster. Speakers of the language have no difficulty in lengthening the first segment of the word *ǹndú*, in effect producing two syllables. However, they cannot lengthen the first segment of the word *mbítsá* to produce three syllables. Therefore, the status of the initial nasal component in *mbítsá* seems to differ from that in *ǹndú*. Other examples containing prenasalized stops are *mná* 'say' and *ngá* 'for (preposition)'. The third criterion for deciding whether a given sequence of sounds is a consonant cluster or a complex segment is vowel insertion. In the plural form of the verb the vowel *a* is inserted after the first consonant. Thus the sequence *nglˊ* 'mount' consists of two segments, as evidenced by the vowel insertion:

(10)   *tà*   *ng-á-l-áy*   *tá*   *plìs-xà*
     IMPF   mount-PL-PO   OBJ   horse-PL
     'he mounts horses' (singular *nglá*)

(11)   *tà*   *ngl-áy*   *tá*   *plìs*
     IMPF   mount-PO   OBJ   horse
     'he mounts a horse'

Compare the plural form *xáná* 'sleep' of the verb *xná* 'lie down'. According to the criteria listed above, the prenasalized stops should be included in the underlying inventory.

Glottalized consonants are in contrast with non-glottalized consonants. There are, however, instances in which the same word may be produced with either a glottalized or a non-glottalized consonant: *ɓádzá* or *bádzá* 'spoil'. Glottalized glides *'w* and *'y* are not, however, underlying.

There is one prenasalized affricate, *ndz*, recorded in the verb *ndzvá* 'connect, tie'. Although we do not have the plural form of this verb that would have demonstrated affirmatively that *ndz* is one segment, the general phonotactics of consonants argues for its monosegmental structure. There are no three-consonant clusters in word-initial position.

2.2.5. Nasals

There are three phonetic nasals: labial, alveolar, and velar. In syllable-final but not word-final position all three nasals can occur. The alveolar nasal becomes velar in syllable-final position as per the rule:

Rule 5:   n → ŋ/ ___ #.

The evidence for velarization is provided by the behavior of the same consonants in intervocalic and in word-final positions. Thus the nasal is velar in word-final position in the isolation form for "child" [zwáŋ]. The plural form is [zwánì], i.e., it has an alveolar nasal. When a word is used in a syntactic construction, its phonetic form in isolation rather than its underlying form is used. Thus when the word *zwán* is used in a genitive construction, the form [zwáŋ] rather than [zwán] is used. The velar nasal is realized as a cluster of a velar nasal and the voiced velar stop [g]. In lento speech the following syllabic division obtains:

(12) *zwáŋ   á   krì* → [zwáŋ.gá.krì]
      child GEN   dog
      'puppy'

The rule finds additional support in the behavior of foreign words ending in a nasal consonant:

(13) *pàtróŋ á   ɗá* → [pàtróŋ.gá.ɗá]
      boss   GEN   1SG
      'my boss'

Not all velar nasals can be accounted for by the rule deriving the velar nasal from the alveolar nasal:

(14) *ŋúhlín   'white'
      kɗiŋà-*   'spot, espy'

Because of these and other cases where the two segments are in contrast, we postulate the velar nasal as an underlying segment. It is useful to represent all velar nasals as *ŋ*, whether underlying or derived, as a reminder of how a consonant is pronounced in a given position. Thus the first-person plural exclusive pronoun is represented as *íŋní*, the word for 'child' as *zwáŋ* or *zóŋ*, depending on the actual variant recorded. The contrast between the velar nasal *ŋ* and the prenasalized velar stop *ng* is more difficult to asses. In the prenasalized stop the velar stop is impressionistically much more audible.

2.2.6. Lateral continuants versus stops

The two lateral continuants *hl* and *zl* are in contrast with each other as well as with other consonantal segments. There are no lateral continuants in word-final position, but they do occur in the word-initial and intervocalic position as well as in consonantal clusters, where they are the second component of the cluster. As noted above, the lateral continuants end as stops, voiceless and voiced as appropriate.

2.2.7. Glides

The velar and palatal glides are in contrast in word-initial, intervocalic, and word-final position:

(15) *pákáw* 'leopard'
      -áy 'object marker in imperfective'
      táw 'cry'

Both glides can occur before low vowel *a*:

(16) *wà* 'negative marker'   *yá* 'demonstrative'

Before high vowel *i* the palatal glide occurs only as a member of a consonant cluster, and even then, the number of attested cases is very small:

(17) *myí-xà* 'wives'

There are no cases of a palatal glide followed by the high back vowel *u* other than as a variant of the first-person singular subject pronoun *-íyù*. The presence of the glide in this form may be accounted for by an epenthesis rule inserting a palatal glide between a front and a back vowel.

The labial glide occurs before both front and back high vowels, whether in word-initial position or as a part of consonant cluster:

(18) *wì*   'mouth'
      wíg   'take out'
      gwì'yán 'elephant'
      skwì   'thing'
      wù   'interrogative particle'
      wúyá   'festival'
      wùd   'fight'

Thus, there is a significant asymmetry in the distribution of labial and palatal glides. The glottalized glides *'w* and *'y* have been recorded only when in intervocalic position, preceded by a high front or back vowel and followed by low vowel, described below in the rules of glottal stop insertion.

2.2.8. Glottal stop and glide insertion

The glottal stop occurs in some intervocalic positions and preceding a palatal or a labial glide. It would appear to be in contrast with other consonants. The distribution of the glottal stop is, however, significantly different from that of other consonants in that it occurs only between identi-

cal vowels or between a vowel and a glide that shares with the vowel the features for height or roundness.

(19) *zì'yá*   'smell'
      hlì'yá   'leave, move one's household'
      kì'yá   'a little'
      mì'í   'wives'
      ù'wà   'milk'
      dzà'á   'go', 'future tense marker'

The glottal stop is an whose function is to preserve the second underlying vowel of the word. Given the rules of vowel replacement, the second vowel would have merged with the preceding vowel if there had been no glottal stop. This rule accounts for the forms *mì'í* 'wives' and *dzà'á* 'go', 'future tense marker'.

If the second vowel is lower than the first vowel, the glottal stop is inserted together with a glide whose features round and palatal are determined by the same features in the preceding vowel. This rule accounts for the forms:

(20) *zì'yá*   'smell'
      hlì'yá   'leave, move one's household'
      kì'yá   'a little'

The glottal stop insertion also accounts for the phonetic changes that take place at morpheme boundaries:

(21) *mì'í-á*   *mghám*   → [mì'yá mghám]
      wives-GEN   chief
      'wives of the chief'

The second vowel of the sequence separated by the glottal stop may be replaced by a vowel from the following morpheme, as per vowel replacement ruless described in 5.6 below:

(22) *nù'wà-áy*   → [nù'wày]
      fatten-PO
      'fatten'

(23) *ú'wà-á*   *úú*   → [ù'wà'ú] and not [ùùú]
      milk-GEN   1DU
      'our milk'

Two rules operate with respect to labial glides: The underlying labial glide is deleted between a high round and a low back vowel, and a labial glide is inserted between an underlying high round vowel and a low back vowel.

The presence of an underlying palatal glide is also a barrier to vowel replacement.

The word *ùvá* has a variant *wùvá*. The two variants may be instances of either glide insertion or glide deletion. Given the presence of other words beginning with *u*, the variant with the initial glide is probably the result of glide insertion.

The glide formation and the glide deletion rules are independently supported by other data in the language. Rules of glide insertion and glide deletion operate in tandem in other Chadic languages as well (cf. Frajzyngier 1989).

3. Phonotactics of consonants

3.1. The distribution of single consonants

Four positions are relevant for the distribution of consonants: word-initial, intervocalic, word-final, and phrase-final. All types of stops have been recorded in word-initial and intervocalic position. In word-final, phrase-internal position only some obstruents occur. In phrase-final position fewer obstruents can occur than in word-final, phrase-internal position. The distribution of stops is represented in Table 3.

Table 3. Distribution of stops in phonetic forms

	Word initial	Intervocalic	Word final	Phrase final
Voiced	*b, d, g*	*b, d, g*	*b, d, g*	
Voiceless	*p, t, k*	*p, t, k*	*p, k, kw*	*p, k, kw*
Prenasalized	*mb, nd, ŋg*	*mb, ng*		
Nasal	*n, m*	*n, m, ŋ*	*m, ŋ*	*m, ŋ*
Glottalized	*ɓ, ɗ*	*ɓ, ɗ*	*ɓ, ɗ*	

The word-final, phrase-internal position may have consonants whose presence results from the deletion of the final vowel. The word-final, phrase-final position is not the one where the final vowels are deleted; any consonants that occur there represent underlying word-final consonants. The glottalized stops *ɓ* and *ɗ* have not been recorded in phrase-final position, e.g. in the phonetic form of words in isolation. But they are postulated to be in word-final position in the underlying form of words: *pɗ*

'leave an object', *ghúɓ* 'wash an object'. In addition, when the final vowel of a word is reduced in the phrase-internal position, both glottalized consonants can occur in word-final position:

(24) *xàɗ*   *kóɓ*   *dà*   *tsí*   *wà*
      lack   money   PREP   3SG   NEG
      'he/she does not have any money'

Similarly the voiced stops have not been recorded in phrase-final position, but they do occur in word-final, phrase-internal position:

(25) *xàd*   *ná*
      place   DEM
      'this place'

Affricates and continuants have a distribution similar to that of stops (see Table 4).

Table 4.   *Distribution of affricates and continuants*

	Word initial	Intervocalic	Word final	Phrase final
Voiced	z, gh, zl, dz	z, gh, zl, dz	z	
Voiceless	s, x, hl, ts	s, x, hl, ts	s, x, hl	s, x

3.2. Consonantal clusters

Consonant clusters in Hdi are constrained by the following elements: the syllabic position of the cluster, the place of articulation, the manner of articulation, and the syllabicity of the segment.

There are many more clusters allowed in the syllabic onset than in the syllabic coda. Two-consonant clusters are common in both word-initial and intervocalic position, but there are no clusters in word-final and phrase-final position. The general principle for consonant cluster formation is that the consonants in a cluster should differ maximally, i.e., they should differ in place of articulation, manner of articulation, and syllabicity properties. Manner of articulation alone does not constrain consonant clusters, since all possible combinations of consonants except for liquid-liquid are allowed. Table 5 illustrates clusters allowed as syllabic onsets, as evidenced by their appearance in word-initial position and clusters in intervocalic position. Rows represent the first element in the cluster and columns the second element. The position in parenthesis is the only position allowed for the cluster:

Table 5. Consonantal clusters and manner of articulation

	Stops	Continuants	Nasals	Liquids
Stops	+	+	+	+
Continuants	+	+	+	+
Nasals	+	+	+	+
Liquids	+	+	+ (V V)	-

In word-initial position there may occur two stops: *bgíni* 'bad spirit', *dgá* 'thresh', *tdá* 'pull'; a stop and a continuant: *txá* (Eguchi 1971 *tghá*) 'expel from body', *tghà* 'door'; or a continuant and a stop: *xgá* 'house, compound', *zdá* 'good'. Clusters with liquids in first or second position are allowed in word-initial and intervocalic position: *lgùt* 'cloth, shirt', *xlá* 'gather', *krì* 'dog'. Affricates followed by continuants are allowed in word-initial position: *tsgh-áy* 'send a thing'. There are very few cases of a continuant followed by another continuant. The cases that have been recorded occur in word-initial position: *ghzú* 'beer made from guinea corn', *ghzl* 'chase'. There are no word-initial voiceless clusters: **xs*, **sx*, **fx*. There are instances of *fx* in intervocalic position as a result of the combination of two morphemes: *xlá-f-xl-í* 'I gathered up'. The absence of word-initial voiceless clusters is explained by the principle of the maximalization of differentiation within a cluster. The word-initial position represents the underlying form of the morpheme, where the maximalization of differentiation operates, while word-medial clusters may represent different morphemes and are not subject to the maximalization of differentiation principle.

3.3. Constraints imposed by place of articulation

Clusters of consonants produced in the same or an adjacent place of articulation are allowed only if the manner of articulation is different. Thus if the same place of articulation is involved and both consonants are stops, they will differ in voicing: *tdá* 'dig', *ddà* 'fall'. If both consonants are produced in the same place of articulation and have the same value for the the feature voice, they will differ in the manner of articulation, e.g., one will be a stop and the other will be a continuant: *kxú* 'smallpox vaccination, vaccination scar' (Eguchi 1971, *kxá* 'smallpox scar'). Clusters formed by consonants produced in non-adjacent places are allowed regardless of the manner of articulation, with an interesting constraint to be described shortly. Table 6 represents allowed and disallowed clusters from the point of view of the place of articulation.

Table 6. Consonantal clusters and place of articulation

	Bilabial	Labial	Alveolar	Velar
Bilabial	-	-	+	+
Labial	-	.-	-	+
Alveolar	-	stop-cont.	+	+
Velar	-	-	+	-

Two consonants in a cluster may have different values for the feature voice: *sná* 'know, hear', *xná* 'slaughter', *dzáwá-p-dzáwá* 'he sold it'.

Three-consonant clusters are allowed in the following configurations: continuant-stop-stop, stop-continuant-stop, stop-stop-stop. All three consonant clusters are allowed only in word-medial position, always representing a combination of different morphemes:

Nasal-stop-stop:

(26)   *kď-í-n-kďà*
        'finish-AWAY-3-finish'
        'he finished it'

Continuant-stop-stop:

(27)   *kďá-f-kďá*   *sárák . . .*
        finish-UP-finish   whip
        'the whip finished . . .'

Nasal-continuant-nasal:

(28)   *snà-n-sn-íyù*
        hear-3-hear-1SG
        'I heard'

Continuant-continuant-sonorant:

(29)   *xlá-f-xl-í*
        gather-UP-gather-1SG
        'I gathered up . . .'

Nasal-stop-continuant:

(30)   *pgh-ì-n-pghà*   *tá*   *hlú'wí*
        put-AWAY-3-put   OBJ   meat
        'she threw away meat'

With respect to stops, the following constraint obtains: Within the same morpheme the first consonant has a place of articulation in front of the place of articulation of the following consonant counting from the labial region. Thus, *pd*, *bg*, and *dg* are allowed, but *db, *dp, *gb, and *gd are not. Examples follow:

(31)   *dgá*   'divide'
        kà bgà   'because'

When two consonants belong to different morphemes, back consonants may occur before front consonants. Thus the inner space extension *g* [k] may be followed by the referential suffix *-tá*:

(32)   *klà-k-tá* . . .
        bring-INN-REF
        'he/she brought it . . .'

The order of continuants and stops is not determined by the place of articulation of segments:

(33)   *txá*   'expel'
        ksá   'take'
        ďvá   'like, want'

With respect to continuants and affricates both orders are possible:

(34)   *màxtsím*   'tomorrow'

Geminate clusters are allowed:

(35)   *nghà-n-ngh-í* → [nghà-nngh-í]
        see-3-see-1SG
        'I saw him'

3.4. Constraints imposed by the manner of articulation

In addition to the place of articulation, there are also constraints with respect to the secondary characteristics of consonants that prevent certain clusters from occurring. Clusters consisting of glottalized consonants

followed by lateral continuant are disallowed: *ɗhl, *ɗzl. If such a cluster were about to occur, an epenthetic vowel would be inserted.

Three-consonant clusters consisting of a stop-stop-stop or stop-liquid-stop are disallowed. Hence there are no clusters of the form: *ptk, *bdg, *bgd, etc., or *kld, *klg, *klm, etc.

4. Consonant devoicing

A voiced consonant becomes voiceless when not followed by a sonorant in a syllabic coda:

Rule 6:   C [+voice]   → [-voice]/___[-son].

Evidence that this rule is conditioned by the syllabic position rather than by the consonantal environment is provided by the existence in syllabic onsets of clusters whose consonants have different values for voice. Compare the behavior of the inner and down extension *gá*:

(36)   *vrà-gá-vr-í*   *dzághà*
        return-INN-return-1SG home
        'I returned home' (from a higher elevation)

When the extension is not followed by a vowel, the velar consonant is voiceless even when following a vowel and preceding a voiced consonant:

(37)   *vrà-k-vr-í*   *dzághà*
        return-INN-return-1SG home
        'I returned home' (from an equal elevation, said at the place to which the subject has returned)

Consider also the "movement out" extension *b* as it occurs with the verbs *sá* 'come' and *lá* 'go'. The evidence for the underlying voiced quality of the consonant of the extension is provided by morphemes when the extension is followed by a vowel:

(38)   *sá-bà*   *á*   *wà*
        arrive-OUT NEG   NEG
        'he did not come out'

The marker of "movement out" extension has two forms, The voiced *b* with the verbs of movement *sá* 'arrive' *lá* 'depart' and voiceless *p* with all

other verbs. The voiced variant of the extension with the verbs *sá* and *lá* becomes voiceless before a voiceless obstruent:

(39)   [sá-p-sà]
        arrive-OUT-arrive
        'he came out'

Before a sonorant extension, *b* stays voiced:

(40)   *lá-b-là*
        go-OUT-go
        'he went out'

5. Vowel system

The phonetic vowels are *a*, *ə*, *i*, *u*, *e*, and *o*. The two mid vowels are rare. The only words containing *o* in our data are borrowings: Thus for *gwár* 'cola nut' a variant [gór] has been recorded. Both forms are borrowings either from Fula *gooro* or Hausa *goro* 'cola nut'; *kóɓù* 'money', a Hausa borrowing; and the occasional variant *ghòzú* for *ghzú* 'beer' (*bilbil* in northern Cameroonian French).

Only a few words in our data contain the underlying front mid vowel *e* (which is lower-mid rather than higher-mid): *dèrí* 'hat', *bèkúlà* 'bulbul'. Some of these words may be borrowings. The noun *bèkúlà* must be related to *bokulay Pycnonotus barbatus* (Pycnontides), *bulbul commun* in Mafa (cf. Barreteau and le Bleis 1990: 87). The word *dèrí* 'hat' is certainly related to the word *dara* 'hat, fez' commonly found in the area (Margi, Hoffmann 1963; Hausa, Abraham 1962). Many instances of phonetic *e* appear to be the product of lowering of the high front vowel *i* in closed syllables: *dímdím* or *démdém* 'all'. Since we cannot account for all instances of *e* as a borrowing or a product of the lowering rule, we postulate *e* as an underlying vowel.

The high central vowel *ə* is fully predictable in the verbal system, where it is inserted by the requirements of tone realization and syllable structure constraints. In the nominal system schwa is in contrast with other vowels: *ghə́n* 'head', *lghúŋ* 'a type of yellow cake'. Thus although with respect to verbs, we do not postulate schwa to be part of the underlying structure, with respect to nouns there is no choice, unless one would postulate vowelless underlying structures with schwa inserted by epenthesis rules. We postulate therefore that some schwas are inserted and that others are part of the underlying structure (see Table 7).

Table 7. *Inventory of underlying vowels*

Front	Central	Back
i	*ə*	*u*
e		*a*

Evidence of vowel contrasts is provided by the following pairs of lexical items representing open and closed syllable environments:

(41) *tà*   'preposition'
    kwítíkw   'small'
    krì   'dog'
    -kú   'absolutive marker'
(42) *ńghám*   'chief'
    ûm   'big drum'
    tàm   'onion'
    ngúdùf   'heart'
    txùrúm   'rat'

5.1. Vowel raising

The low vowel *a* may be raised to *e* when followed by a palatal glide, as evidenced occasionally in pronunciation of the imperfective object marker *-áy*. The raising has been observed in speech of some speakers:

(43) *gùy-áy-mú*   *tá*   *vghá* → [gùy-éy-mú]
    meet-PO-1PL.INCL OBJ   body
    'let us meet'

(44) [xn-áy]   or [xn-éy]
    cut-PO
    'slaughter'

The sequence *ay* may be reduced to [e] in fast speech:

(45) *tà*   *z-áy-z-áy-lú*   →   [zé-zé]
    IMPF   eat-PO-eat-PO-UH
    'they are eating'

The form [zé] coexists with [z-áy]. The raising rule is optional. Most forms do not raise *a* when it is followed by *y*: *zb-áy* 'choose', *kúm-ày* 'like, want', *tsúdáy* 'animals dangerous to man'.

5.2. Vowel lowering

Sporadic vowel lowering takes place when a high vowel is followed by a low vowel. The high vowel may be lowered one step:

Rule 7:   V[+high] → [-high] / ___CV[+low].

(46)   *ghùzú-á   kwálábá*   → [ghòzá kwálábá]
        beer-GEN   bottle
        'bottled beer'

Vowel lowering may also be caused by low consonants, viz. velar continuants and the glottal stop; thus, *i* becomes *e* when followed by a low consonant:

(47)   *stìxá*   → [stìxá] and [stèxá]
        'kidneys'

5.3. Vowel rounding

The high vowel becomes round when followed by the round glide within the same morpheme or across a morpheme boundary within the same phrase. The following rule accounts for this process:

Rule 8:   V[+high] → [+round] / ___w.

It is not possible to determine whether the vowel that becomes round is underlyingly front or schwa. Given the fact that the final non-grammatical vowels are deleted in phrase-internal position (cf. 5.7 below), and that schwa is inserted for syllabification, the examples below may represent equally well the rounding of the front high or central high vowel:

(48)   *xàɗú   ìmí   wà*   → [xàɗímúwà]
        lack   water   NEG
        'there is no water'

(49)   *xàní   wà*   → [xànúwà]
        sleep   NEG
        'he does not sleep'

(50) *xdí   á   ká   tsì   wà* → [xdá-á-ká tsù-wà]
      Hdi   NEG   COMP   3SG   NEG
      'she should not be a Hdi'

The vowel rounding rule does not apply when *i* is the only component of a morpheme, as in the case of the first-person singular marker:

(51) *xàdú   xìyá   ŋní   dà   í   wà* [*íwà*]
      lack   guinea corn   1PL.EXCL   PREP   1SG   NEG
      'we have no guinea corn at my place'

5.4. Vowel fronting

The high central schwa is fronted when followed by the palatal glide *y*. The rule applies to schwas that have been inserted after word-final vowels were deleted, as per rule described in 5.7. below:

(52) *m̀ndú   yà* → *m̀ndə́ yà*   → [m̀ndíyà]
      man   COP
      'it is a man'

(53) *ɗgú   yà* → *ɗgə́*   *yà* → [ɗgíyà]
      threshing   COP
      'it is threshing'

5.5. Vowel epenthesis

Three factors motivate vowel epenthesis: syllable structure conditions, consonant clusters constraints, and the realization of grammatical tone.

The syllable structure condition requires a vowel insertion if a disallowed syllable structure were going to occur as a result of the affixation process. Thus if a disallowed syllabic onset or coda were going to emerge, an epenthetic vowel must be inserted. The tone realization conditions require a vowel insertion, if the absence of the tone were about to affect the grammatical coding that is realized by the tone. The consonant cluster constraint requires epenthesis if a disallowed cluster were about to emerge.

The syllabification process takes place from left to right. The vowel is inserted in the first place where the violation of the syllabic structure oc-

curs. The vowel from the next syllable is copied into the disallowed position or into the first position that requires a tone realization:

(54)   *kĺ-g-í-d-á-ghà*   *ìmí*   → [klígídághà]
       take-INN-AWAY-1SG-PVG-D:PVG   water
       'bring me some water!'

(55)   *kĺ-g-ì-xà*   *ìmí*   → [klígìxà]
       take-INN-1SG-DOWN   water
       'bring me down some water!'

If the syllable does not have its own tone, the tone of the epenthetic vowel the same as the tone of the source from which the vowel is copied (cf. 7.4 below):

(56)   *b-d-í-d-f-bà*   → [bídídífbà]
       build-ALL-AWAY-1SG-UP-build
       'he built me [a wall]'

The epenthetic vowel is *a* if the vowel in the next syllable is *a*:

(57)   *mà*   *kl-à-d-á-f-ká*   → [mà klàdáfká]
       PROH   take-EP-ALL-PVG-UP-2SG
       'do not take it up there'

If the tone position is the last position in the word, that is, if there is no following syllable in the same word, the epenthetic vowel is schwa. Thus when the negative auxiliary *xàdú* is followed by a subject enclitic, the final vowel *u* is deleted because it is in phrase-internal position, but it is replaced by schwa because of the need to code high tone before the following subject:

(58)   *xàd*   *ŋní* . . .   → [xàdə́-ŋní]
       lack   1PL.EXCL
       'we do not . . . '

Whether a vowel in a given structure is epenthetic or underlying can be determined only from the morphological and syntactic structure of the verb.

Syllable onsets with a consonant followed by a sonorant are disallowed. To prevent such clusters an epenthetic vowel is inserted. For the sonorant *y* the *i* is inserted according to the rule:

Rule 9:   Ø → *i* /C___#*y*.

For example, the interrogative marker for non-human participants is *ń*. When the marker is followed by the copula *yà*, the vowel *i* is inserted:

(59)   *ń*   *yà*   →   [níyà]
        what   COP

Sonorant *l* is transparent with respect to vowel insertion. The epenthetic vowel is identical with the vowel following the sonorant:

(60)   *vrà-k-vr̀-lú*   →   [vrà-k-vr-ú-lú]
        return-INN-return-UH
        'they returned' (high tone n the epenthetic vowel because it
        precedes a subject pronoun)

When the [-human] interrogative *ń* is followed by a word beginning with a consonant, an epenthetic vowel is inserted. The epenthetic vowel is identical with the first vowel present to the right of the interrogative marker:

(61)   *ń*   *z-ú-ká*   *nà* → [n-ú-z-ú-ká nà]
        what   eat-SO-2SG   Q
        'what did you eat?'

5.6. Vowel replacement

The morpheme-final vowel is replaced by the initial vowel of the following morpheme if the two belong to the same phrase:
Rule 10:   V$_1$ → V$_2$/ ___ #V$_2$.

The rule always operates in fast speech. When the associative plural marker *i* in subject position follows complementizer *ká*, the result in normal speech is the sequence [kîi]. In slow speech it is [ká ì]. The tone of the morpheme whose final vowel is replaced remains and is realized on the new syllable. The final vowel replacement may result in one vowel or

two vowels, viz., the sequence V₁+ V₂ may result in V₂ or in V₂V₂. In normal speech only one vowel is produced after replacement. In lento speech two vowels are rearticulated. Both of these cases are illustrated by the following examples:

(62)   *tá*   *ìmí*   → [tímí]
        OBJ   water

(63)   *ndá*   *íí*   → [ndíí]
        ASSC   1SG
        'with me'

(64)   *tá*   *ù'wà*   → [túù'à]
        OBJ   milk

(65)   *sà*   *ìmí*   → [sìimí]
        drink   water
        'to drink water'

The first-person singular object marker *-íxà* and the subject clitic *í* replace the final vowel of the verb. Thus, when the first-person benefactive pronoun is added to the verb *pɗá* 'to leave some' with the goal-oriented marker *á*, the vowel of the verb is replaced by the vowel of the pronoun:

(66)   *pɗ-íxà-pɗá*
        leave-1SG-leave
        'he left it for me'

Subject clitics:

(67)   *ǹghà-n-ǹgh-í*   *tà*   *lúmá*
        see-3-see-1SG   PREP   market
        'I saw him at the market'

(68)   *ndùs-íyù*
        close-1SG
        'I am close' (cf. *ndùsá* 'close')

Vowel replacement affects not only lexical vowels but also grammatical morphemes. The following example has two replacements: the lexical vowel *i* by the genitive morpheme *á* and the genitive marker *á* by the

vowel of the first-person dual. The lexical low tone of the word *krì* 'dog' remains stable throughout these replacements:

(69)   *krì-á-ú*   → [kràú] and [krùú]
       dog-GEN-1DU
       'our dog'

The liquid *l* is transparent with respect to vowel replacement, i.e., the vowel following the liquid replaces the final vowel of the preceding morpheme. The vowel replacement is, however, not obligatory:

(70)   *tà   lúmá*   → [tùlúmá] and [tà lúmá]
       PREP   market
       'at the market'

(71)   *tf-ú-'ú-ághá-tfá-lú*   → [tf-ú-'wá-ghá-tfú-lú]
       spit-1DU-D:PVG-spit-UH
       'we (1DU:INCL) were blessed'[1]

The interrogative 'where' is *gá*, as attested by examples in which this word is followed by a consonant-initial morpheme. But when *gá* is followed by a vowel-initial morpheme, the vowel *a* is replaced by the vowel of the following morpheme:

(72)   *gá   íí   nà* → [gíínà]
       where   1SG   Q
       'where am I?'

Another vowel-initial morpheme is the first-person dual marker *úú*. When it is added to a verb, the vowel of the verb is replaced by *u*:

(73)   *zú-úú-zá*   → [zú-ú-zá]
       eat-1DU-eat
       'let us eat!'

(74)   *sù-úú-sà*   → [sùúsà]
       drink-1DU-drink
       'let us drink'

5.7. Vowel deletion

In phrase-internal position the morpheme-final vowel is reduced. Thus the interrogative marker *wà* 'who' is realized as [w] in phrase-internal position:

(75)   *slá-á   wà   nà* → [sláwnà]
        leg-GEN   who   Q
        'whose leg?'

When the vowel reduction would result in a disallowed consonant cluster, a schwa is inserted. Consider the word *m̀ndú* 'man'. In phrase-internal position the final vowel is deleted. But if the following word begins with a consonant cluster, a schwa is inserted. The schwa assumes the tone of the syllable to which it is added:

(76)   *m̀ndə́   rxá*
        man   wise
        'wise man'

The situation is similar for monosyllabic words that begin with a consonant cluster. When such words are followed by a word beginning with a consonant, vowel deletion would result in a three-consonant cluster in word-initial position. An epenthetic schwa is therefore inserted to satisfy syllabification rules:

(77)   *xdí   xə̀n*   →   [xdə́xə̀ŋ]
        Hdi   3PL
        'these are Hdi people'

5.8. Glide formation

A high back vowel becomes a glide after a velar, labial, or liquid consonant and before *a*, according to the rule:

Rule 11:   u   → w/C[+velar, labial, liquid] ___ (C)a.

(78)   *gù   á   wà*   → [gwà á wà]
        goat   NEG   NEG
        'it is not a goat'

(79)   kɗà-kú-á-ní   → [kɗàkwánì]
       finish-ABS-GEN-3SG
       'its having finished'

A glide may emerge as a result of vowel spread. The vowel *a* originating as a genitive marker may spread to the left. If it encounters a velar consonant followed by a high round vowel, the high vowel becomes a labial glide:

(80)   zgún-à   → [zgwánà]
       man (vir)-GEN
       'man's'

(81)   kóbò-á-ú   → [kwábà-ú]
       money-GEN-1DU
       'our money'

An example of labialization following a labial consonant is provided by the behavior of the root *fú* 'heat' when followed by *a*:

(82)   fú-fwá   ìmí
       heat up-heat up   water
       'water heated up'

(83)   fw-á-p-fw-á   ìmí
       heat up-PVG-UP-heat up   water
       'water boiled'

It is very likely that morphemes that have the sequence [C[velar] wa] represent a sequence /C[velar] ua/. Thus *ghwán* 'ten' may be underlyingly *ghúán*.

The sequence *ua*, even after a velar consonant, may result in round low mid vowel [o]. Thus the word *zwán* 'child', probably derived from *zùán*, is sometimes pronounced *zóŋ*.

(84)   màrkw   á   tàn   → [màrkwátàn] and [màrkótàŋ]
       wife   GEN   3PL
       'his wife' (The third-person plural rather than singular pronoun is a polite form. In contrast to the plural, the possessor pronoun has low tone.)

5.9. Glide metathesis

Two types of metathesis have been observed. In one the labial glide moves from word-final position to penultimate position. The following variants of the word for 'chicken, hen, rooster' have all been obtained in isolation: *ghàtálàkw, ghàtálàuk, ghàtálòk.* We take the first form to be the underlying one, since there are other words ending in *kw.* The second form is an instance of segment metathesis, whereby the labial glide is moved to the position before the last consonant. The third variant represents the fusion of the vowel *a* with the labial glide or the high back vowel after metathesis.

6. Syllable structure

6.1. Allowed and disallowed syllabic structures

A syllable in Hdi has the following properties: The onset and the coda may be absent and the syllable may consist only of the nucleus, which may be a vowel or a sonorant: *á* 'negative marker', *m̀.dá.rá.yá* 'hunter', *m̀.ták* 'bush'. The onset may consist of a consonant: *tà* 'preposition', or a cluster of consonants, CC. The cluster may consist of a stop and a glide: *kwá* 'calabash'; a liquid followed by a stop: *lgùt* 'dress', *rvú* 'cow'; a continuant followed by a stop or a sonorant: *xdí* 'self-name', *vwàx* 'field'; a stop followed by a continuant: *ksá* 'touch', *nghá* 'see', *ská.là* 'dance'; a stop followed by a continuant: *txùrúm* 'rat', *pghìntà* 'proper name feminine'. The onset may consist of three consonants, provided that the first is a continuant or a liquid, the second is a stop, and the third is a sonorant: *skwá* 'buy', *ldrá* 'start'.

The coda may consist of one consonant, which may be a sonorant (including liquids and nasals), a stop, or a fricative: *zà.vádf* 'a season', *màx.tsím* 'tomorrow', *ngúdùf* 'heart'. The alveolar nasal becomes velar in word-final position: *xǝŋ* 'third-person plural subject marker'. Apart from sonorants, no voiced consonants may appear in the coda position. Glottalized consonants are voiceless, as in other Chadic languages. The only phonetic consonant cluster in coda position consists of a stop followed by a glide, a result of the labialization of the final *u* following a velar consonant: *kwítìkw* 'small', *tùrtúkw* 'one'.

In addition to consonants and vowels, tone is an important element that enters into the syllabification process. Tone is an independent component of the structure of a morpheme.

Syllabification proceeds from left to right after morphemes have been put together and word-final vowels have been deleted when appropriate (i.e. when not in prepausal position and when not constituting grammatical morphemes). Syllabification proceeds as follows: The first nasal consonant is associated with the first tone if a morpheme has more than two tones: *m̀ndú* 'man'.

If the word has only one tone, the consonants, up to the allowed number and in the allowed sequence, constitute the onset of the syllable, and the first vowel constitutes its peak, as in *ndrá* 'drive':

6.2. Preferred syllable structure

Although there exist many different types of syllabic onsets, there is evidence that, all other conditions being equal, some onsets are preferred over others, resulting in some types of syllables being preferred over others. Specifically the type with one consonant in the onset is preferred over the type with two consonants in the onset. Thus if a sequence CCT is to be syllabified, the syllable structure CVC is preferred over the type CCV, although both types are allowed in the language. The syllabic structure VCC is disallowed. Here are a few examples of how the preferred syllable structure affects the syllabification of morphemes without underlying vowels.

If the morpheme does not have an underlying vowel, a schwa is inserted as a tone-bearing unit and as a syllabic peak. The schwa is inserted after the preferred consonantal onset has been built. Consider two cases: the addition of pronominal object markers in prohibitive constructions; and the form of the verb before the allative extension *dá*.

If a morpheme has a consonant and a tone followed by a vowel in the subsequent morpheme, the two consonants together with the following vowel form one syllable:

(85) *m̀à*   *vl̀-í-ká*   *tá*   *ghzú*   →   [mà vlí-ká]
      PROH   give-1SG-2SG   OBJ   beer
      'do not give me beer'

If there is a sequence of three consonants but two consonants form a morpheme with their own tone, a schwa is inserted as a tone-bearing unit. The schwa could be inserted either after the first consonant to form CVC or after the second consonant to form the CCV structure:

(86)   *mà   vΐ-ká*   → [vəl-ká] *or* [vlə-ká]
       PROH   give-2SG
       'do not give . . .'

Before the allative *dá* which indicates movement to a specific place, the verb may have the vowel *a*, indicating the participation of the subject together with the object in the movement, or no vowel, if no movement of the subject is implied. For the latter case, a schwa is inserted as a tone-bearing unit. If the verb is monoconsonantal, the schwa is inserted after the consonants:

(87)   *dź-dá-ná-dzà*   →   [dzə́-dá-ná-dzà]
       hit-ALL-DEM-hit
       'he hit [a ball] from above'

Consider now the verb *ngΐ* 'mount' in a similar situation, i.e. when the subject is not the one who mounts. Since there is no underlying vowel before the extension *dá*, and since the verb has a tone as part of its structure, a schwa must be inserted. The schwa could be inserted after the first, the second, or the third consonant. As it turns out, the schwa is inserted after the second consonant, the syllabic structure CVC being preferred over the structure CCV:

(88)   *ngəl-dá-ná-f-nglà*   *tá*   *plìs*
       mount-ALL-DEM-UP-mount   OBJ   horse
       'she made him mount the horse' (but she herself did not mount)

If there is a disallowed sequence of three consonants, an epenthetic schwa is inserted for syllabification. Consider the verb 'divide' *dgá*. When followed by the "away" marker, the form becomes *dgí*. The first-person object is *d*. The verb has also the "out" extension *p*. The sequence of the pronoun, the extension *p*, and the first consonants of the verb would produce a disallowed four-consonant cluster **dpdg*. The first disallowed sequence **dpd* is syllabified by the insertion of the epenthetic *i* after the first consonant, and the second disallowed sequence **pdg* is syllabified by the insertion of schwa, *p-dəg*:

(89)   *dg-í-dĭ-p-dəgá*
       divide-AWAY-1SG-OUT-divide
       'divide [it] for me'

7. Tone

7.1. The tonal system

The language has two tones, high and low. Tone plays an important role in both the lexicon and the syntax of the language. In the lexicon tone distinguishes lexical items whose segmental structure is identical: *xná* 'slaughter' and *xnà* 'lie down'; *sá* 'come', *sà* 'drink'; *zá* 'eat' and *zà* 'forget'; *tá* 'object marker' and *tà* 'locative preposition'. Tone also plays an important role in the coding of the semantic role of arguments, in the reference system and nominal system, in modality coding, in virtually all constructions in the language. All high tones in phrase-final position are lowered, but they do not become as low as low tone. Compare the behavior of verbs in the reduplicated form where the reduplicated, second, part of the verb retains the tone of the first part. The low tone remains low:

(90) *s-ù-sà*
      drink-SO-drink
      'he drank up'

The high tone becomes lower than the preceding high, but it is still higher than the low tone:

(91) *sá-sā*
      arrive-arrive
      'he came down'

(92) *z-ú-zā*
      eat-SO-eat
      'he ate up'

Subsequently in this work we do not mark this slight lowering of the underlying high tone in phrase-final position.

The underlying tone of a morpheme may change when it occurs in a specific construction that has its own tone rule. Thus the formation of questions about the truth (yes/no questions) is marked by the clause-final marker *rà* and by high tone on the penultimate syllable of the clause. As a result of this rule, all penultimate syllables, whether underlyingly low or high, have high tone in the interrogative clause. Since tone is a coding means for various syntactic and semantic functions, the functions of tone are described when a given functional domain is discussed. In the present section we deal with two questions: What happens with tone when two

tone-bearing units fuse? and What tone is assigned to an epenthetic vowel?

7.2. Tone and vowel deletion

If a vowel is deleted, as is often the case with word-final vowels in phrase-internal position, and if a new syllable is not formed, the tone is deleted as well. Consider the word for 'time', *bàdú*, which can be combined with the word *lúmá* 'market', to give 'market day'. The final vowel is most often deleted in normal speech, giving *bàd lúmá*. Consider the noun *rvérí* 'lion'. When this word occurs in phrase-internal position, both the final vowel and the last high tone are deleted:

(93) sá-ghà   rvér   ná
      arrive-D:PVG   lion   COMP
      'While the lion was coming ... '

(94) lúm-á   gòzú   yá   á   w   → [gòz-yá-w]
      market-GEN   Gozu   DEM   NEG NEG
      'not on Wednesday'
Cf.:
(95) bàd   lúmá   gòzú
      day   market Gozu
      'the day of the market in Gozu' (Wednesday)

7.3. Tone and vowel replacement

If a vowel is replaced by the next vowel, the tone of the first syllable becomes the tone of the new syllable as per the following rule:

Rule 12: $CV_1T_1 + V_2T_2$ → CV_2T_1.

In such a case the tone T_1 is preserved and the tone T_2 is lost. The retention of the tone T_1 when V_1 is replaced by V_2 has an important effect on the phonetic realization of morphemes beginning with a vowel. The underlying tone on this vowel may change if the tone on the preceding morpheme ending in a vowel is different. Here are some illustrations of the operation of the rule.

The negative existential verb is *xàdú* 'lack, not to be'. When it is followed by its subject beginning with a vowel, the verb loses its final vowel. That vowel is replaced by the first vowel of the following word.

Thus if the subject is *ìmí* 'water', the result of the vowel replacement is [xàɗímí], i.e., the last tone of the verb is retained, but the first tone of the noun *ìmí* is lost:

(96) Underlying   Vowel replacement and tone retention
      xàɗú ìmí   wà   →   [xàɗ-ím-ú wà]
      lack   water NEG
      'There are no rains.'

The genitive marker *á* is realized with low tone as *à* if the preceding word ends in a vowel and has low tone:

(97) *zwán-ì-á   krì* → [zwánà krì]
      child-PL-GEN   dog
      'children of dog'

If a high vowel is not deleted, as is the case with grammatical morphemes, the high vowel becomes a glide, and its tone is also deleted. We have examples only of grammatical morphemes with high tone vowel:

(98) *vú   á   ɗá*   → [vwáɗá]
      fire   GEN   1SG
      'my fire'

7.4. Tone and vowel epenthesis

When a morpheme has an inherent tone, the epenthetic vowel acquires the tone of the morpheme. Consider the tone on the epenthetic vowel in the reduplicated form of the verb with the definite object marker *n* and with the inverse extension -*s*. The presence of these consonants combined with the initial consonant of the verb creates a disallowed consonantal sequence *nsC*, and therefore requires insertion of the vowel glossed as "EP". If the pronominal object is dative, the verb has high tone and the epenthetic vowel has low tone:

(99) *ghùn-í-n-ì-s-ghùná*
      send-AWAY-3-EP-INV-send
      'he sent him somebody for good'

If the pronoun is a direct object, the verb has low tone and the epenthetic vowel has high tone, all in accordance with the coding of the semantic roles of objects:

(100) *ghùn-ì-n-í-s-ghùnà*
       send-AWAY-3-EP-INV-send
       'he sent someone away with him for good'

The verb *ndrá* in the imperfective aspect of a pragmatically dependent clause does not have a morphemic vowel. When it is followed by a glide, an epenthetic high front vowel must be inserted and that vowel has high tone:

(101) *tsá   dîyàk tà   ndrɔ́   yá*   → [ndrí yá]
       DEF   bird   IMPF   fly   DEM
       'the bird that is flying away'

If a vowel is inserted for syllabification purposes into a position that does not carry a tone of its own, the inserted vowel acquires the tone of the preceding syllable. Consider the word *màràkw* 'woman'. The second vowel of this word is epenthetic because the consonantal onset with three consonants is disallowed. An argument in support of this hypothesis is the form of this word in the genitive construction, where the word occurs without the second vowel:

(102) *màrkw-á   krì*   →   [màrkwá krì]
       female-GEN   dog
       'bitch'

7.5. Tone and phrasal structure

Tone has become a means to code a connection between syntactic elements. The general principle is as follows: For certain morphemes there is an option of having the last tone high or low. The low tone on those morphemes codes the end of a phrase, and the high tone codes the phrase-internal position. This means, in turn, allows the determination of what constitutes a phrasal unit and what types of phrases there are.

Consider the referential marker *-ta* suffixed to the verb. In indicative clauses (in subjunctive clauses it behaves differently) this morpheme has either high or low tone. It has a high tone if the element that follows it belongs to the same syntactic phrase as the verb. It has low tone if the element following it belongs to a different syntactic phrase. Consider the following example where in the first clause, the referential marker is followed by the object of the verb and has high tone. In the second clause, the verb is followed by an adverb, and the referential marker has low tone:

(103) *mbàɗ* *ká-'á*   *kà*   *xlá-f-tá*   *zwàn-à*   *kri*
       then   COMP-3SG SEQ   gather-UP-REF   child:PL-GEN   dog
       kà   *pgh-í-n-tà*   *gúɗúk*   *dìstá-ní*
       SEQ   put-AWAY-3-REF   together   in-3SG
       'And then he gathered the children of Dog and put them all inside
       it [the beans].'

8. Conclusions

The phonological system of Hdi is characterized by a rich consonantal system and a relatively limited vowel system. Syllable structure rules allow for two- and three-consonant sequences in the syllabic onset and no consonantal clusters in the syllabic coda. If a disallowed consonant cluster is going to emerge, epenthetic vowels are inserted.

Voiced consonants become voiceless in the syllabic coda. The alveolar nasal becomes a velar nasal in word-final position.

Tone plays a role in both lexical and grammatical distinctions. Every syllable has a tonal characteristic.

If the vowel of the syllable is deleted (not replaced), then the tone of that syllable is deleted as well. When two vowels belonging to different morphemes are in sequence, the first vowel is replaced by the second. The tone of the replaced vowel is preserved.

The rule of vowel replacement and tone retention often results in phonetic realizations of morphemes different from their underlying forms. Since the phonetic realizations are in fact the means of coding semantic and syntactic functions, in the present grammar it is the phonetic rather than the underlying form that is represented. Doing otherwise would have obliterated the functions of the coding means that Hdi has developed.

Chapter 3

The structure of the noun phrase

1. Introduction

We consider as a noun phrase any endocentric construction whose head is a noun (cf. Bloomfield 1933). In this chapter we describe all noun phrase constructions we have found, except for nominalized clauses, described in Chapters 19 and 23.

We begin the present chapter with a description of the lexical category *noun*, followed by modifying constructions (including possessive constructions) in which the modifier is nominal and pronominal. When the modifier is nominal, there are several types of modifying constructions that differ in their markers of modification and in their function. Two of the markers of modification are derived from and identical with demonstratives. Grammaticalization from demonstrative to genitive marker is a widely attested phenomenon in Chadic and non-Chadic languages. We then discuss constructions with demonstratives, property concept words, quantifiers, and conjoined noun phrases. The modification of a noun by deictic and anaphoric markers is discussed in Chapter 4.

2. Nouns

We take the inherent property of serving as an argument of a clause to be the defining and sufficient characteristic of the nominal class. Some lexical items are inherent nouns; others are derived from verbs. The inherent nouns can serve as heads of noun phrases, which in turn can serve as arguments of a verb.

There is no distinction for gender or other nominal classes coded within the nominal system, the verbal system, or the reference system of the language. Only proper names have lexicalized the gender distinction. Some female names are derived through the addition of the suffix *wà* to the masculine name. The name *mbítsá*, derived from the verb *mbítsá* 'remain', is given to a boy born after the death of all preceding siblings. A girl born after the death of all preceding siblings is given the name

mbítsáwà. Nouns can take possessive suffixes, definite suffixes, and number suffixes.

Some nouns, such as proper names, have a complex structure consisting of preposition and noun or even verb and noun. Proper names are frequently chosen for their presumed power to prevent certain types of calamities: *má xàdɛ́k* 'into the ground' (*mà* 'in, from'). In proper names the preposition has high tone). Another example is *ngá rgwá* 'for fertilizer'. More neutral (but less common) names include *mó-ghzú* 'in [the time of] beer' and *ndrá-ghzú* 'breaking the grain for beer'.

Some nouns are compounds consisting of noun and verb: *m̀nd-á ráyá* 'hunter', which derives from *m̀ndú* 'man' plus *ráyá* 'hunt'. The evidence of compounding is provided by the replacement of the final vowel of the noun by the genitive marker *á*.

3. Morphological coding of number

Singular is the unmarked category. Plural is marked by several means, whose use is lexicalized, i.e. it cannot be predicted from any of the semantic or phonological characteristics of the noun. The most productive is the suffix *xà*, segmentally identical with the first part of the third-person plural independent pronoun *xáxən*. Since *xən* serves by itself as the third-person plural subject, it is clear that the independent pronoun consists of two parts. The old third-person plural pronoun was probably *xa*, as evidenced by comparative data from closely related languages such as Glavda, where the third-person plural anaphor is *ha*, and Mofu-Gudur, where the third-person plural pronoun is *ha*. The plural marker *xa* thus derives from the third-person plural pronoun:

(1)	Singular	Plural	Gloss
	m̀ndú	*m̀ndú-xà*	'man'
		mìá-xà	'woman'
	sígà	*sígà-xà*	'pot'
	ùm	*ùm-xà*	'big drum'
	tàm	*tàm-xà*	'onion'
	kàlímì	*kàlímì-xà*	'a variety of kingfisher with bright blue feathers'

A less frequent, unproductive plural marker is the suffix *i*, which is identical with the associative plural marker:

| (2) | *zwán* 'child' | *zwán-i* | 'children' |

This suffix has cognates in other Chadic languages, where it is often the third-person plural pronoun (Frajzyngier 1997 and references there).

Another device is suffixation of the vowel *à* accompanied by infixation of the same vowel:

(3)   *zgún* 'man'   *zgwánà*   'men'

This device is also used in the verbal system to mark plurality of the object, as described in the Chapter 5 section 5. (for both of these devices in other Chadic languages, cf. Frajzyngier 1997).

If plurality is marked by some other means within the clause, the noun does not have to be marked for plural:

(4)   *tághá   tá   skwì   dágálá*
       learn   OBJ   thing   more
       'learn more things'

The overt marking of plurality on nouns is not very common, suggesting that the nominal plural markers are not inflectional morphemes (Frajzyngier 1997). Thus with the quantifier *ìndà* 'all', some nouns have a plural marker and others do not, as in the following phrases taken from the same sentence. As in many other languages, human nouns are more likely to be marked for plural than non-human nouns:

(5)   *índà   mìndú-xà*
       all   man-PL
       'all men'

       índà   tsá   púrkútú ndzúm   yá
       all   DEF   story   DEM
       'all the stories'

Similarly with the quantifier *dágálá* 'many', the noun does not have to be marked for plurality:

(6)   *skwì   dágálá*
       thing   many
       'many things'

4. Associative plural

The term *associative plural* is used for forms that code a group functioning as one argument. The associative plural marker is the vowel *i*, preceding a noun or a conjoined noun phrase:

(7)   *ì*   *krì*   *ndá*   *pákáw-á*   *ghúvì*
       ASSC.PL   dog   ASSC   leopard-GEN   feces
       'Dog and Hyena.'[2]

(8)   *kà*   *yáyà-tá*   *ì*   *gùlú*   *ndá*   *zírí*
       SEQ   give birth-REF   ASSC.PL   Gulu   ASSC   Ziri
       'and he begot Gulu and Ziri'

(9)   *kà*   *zə*   *ì*   *kɗérí*   *ndá*   *zwàn-à-ní*   *tá*
       SEQ   live   ASSC.PL   Kderi   ASSC   children-GEN-3SG   PREP
       mghám
       well
       'and Kderi and his children lived happily'

When the marker *i* precedes a single noun, the meaning of the construction is "noun and company":

(10)   *kà*   *vrà-gá-tá*   *ì*   *ngax ngax*
       SEQ   return-INN-REF   ASSC.PL   Ngah Ngah
       'and Ngah Ngah and his people returned'

The associative plural may be used together with the collective marker:

(11)   *ì*   *lá*   *dəbləm*   *lá*   *dzátà*
       ASSC.PL   COLL   Dəbləm ˙   COLL   Dzata
       'Diblim people and Dzata people'

The use of the associative plural *i* before each noun has a distributive function, indicating that each of the participants (with his/her people) is a separate group, i.e. separate from other groups:

(12) tsá yá gúlí ná zàmànà ì kàftàlà
DEF DEM also DEM time ASSC:PL Kaftala
vàláŋ, ì mbúlgòy ì ngàx ngàx tá
Valan ASSC:PL Mbulgoy ASSC:PL Ngah Ngah COM
ghúyá mìndú mà tsá fìtík yá
make suffer people PREP DEF time DEM
'It was also at that time that Kaftala Valan with his people, Mbul
goy with his people, and Ngah Ngah with his people made people
suffer'

When the marker ì precedes a conjoined noun phrase, the two com-
ponents of the noun phrase function as one argument:

(13) ì pákáwá ghúvì kà nzà-tà ndá krì
ASSC.PL hyena SEQ stay-REF ASSC dog
'Hyena and Dog [once] lived together.'

With the associative plural ì the semantic roles of both nouns must be
the same. Arguments that have different semantic roles cannot be used in
the associative plural construction:

(14) *lá-ghú-lá ì mbítsá ndá kóɓù tà
go-SO-go ASSC.PL Mbitsa ASSC money PREP
lúmá
market
for 'Mbitsa went to the market with money'

5. Modifying constructions of the type noun—verbal noun

These are constructions where the modifier follows the head without any
overt marker of connection. The modifier in such a construction must be a
verbal noun, i.e. a noun derived from a verb:

(15) bàɗú pghù
day initiation
'day of initiation'

(16) bàɗú skál-á hlà
day dance-GEN cow
'day of the holiday of bull'[3] (skálú 'dance', verbal noun)

Cf.:

(17)   *bàɗú hlà
       day   cow
       for 'day of the bull'

The only exception seems to be:

(18)   bàɗú lúmá
       day   market
       'day of the market'

But market may be considered to be a noun describing an activity as well as a place.

6. Modifying constructions marked by demonstratives

Modifying constructions with demonstratives have the form Head Demonstrative Modifier. The demonstrative involved most often is á, but other demonstratives, usually nà, may also be used. Since the function of the demonstrative á corresponds to the function of genitive markers in other languages, it is glossed here as "GEN" in order to facilitate the recognition of the construction involved.

6.1. Phonetic realization and categorial status of the genitive á

If the noun ends in a vowel, that vowel is replaced by the vowel of the genitive marker. In such cases the vowel assumes the last tone of the noun:

(19)   hlú'wí-á   krì   →   [hlú'wá krì]
       meat-GEN   dog
       'dog meat'

(20)   wì-á   tghà   →   [wà tghà]
       mouth-GEN   expel?
       'door'

Nouns come into the genitive construction in their surface phonetic realization rather than in their underlying form:

(21)   *zwáŋ-á-ní*   [zwángání]
      child-GEN-3SG
      'his child'

Compare the behavior of the genitive marker with that of plural marker *i*. The plural marker is added to the underlying form of the word rather than to its phonetic form:

(22)   *zwán-i*   →   [zwáni]
      child-PL
      'children'

We conclude that the genitive construction is not a morphological but rather a syntactic means of coding. This is additional evidence that the genitive marker *á* is the same as the remote demonstrative *á*, and that it still retains its independent syntactic status. However, if a preceding noun ends in a vowel, the genitive marker replaces the last vowel of the noun, and the genitive behaves just like a suffix. Consequently, we represent the genitive marker as *-á*, because there is never a pause between the preceding noun and the genitive marker, and the genitive marker forms a peak of the last syllable of the noun.

When the head ends in vowel *a*, the presence of the genitive marker cannot be detected, because even if it is there, it would assume the tone of the vowel *a* ending the head:

(23)   *krə̀-xà*   *mbítsá*
      dog-PL   Mbitsa
      'Mbitsa's dogs' (*krì* 'dog')

(24)   *hlà-xà*   *pɗúm̀ndú*
      cow-PL   Pdumndu
      'cows of Pdumndu' (from *pɗú* 'lack' and *m̀ndú* 'man')

If the consonant preceding the genitive marker is labial or velar, the high rounded vowel is labialized rather than replaced, as per labialization rules:

(25)   *vú-á*   *m̀ták*   →   [vwám̀ták]
      fire-GEN   bush
      'bush fire'

If the modified noun ends in a consonant, the genitive marker *-á* forms a syllable with the last consonant of the noun:

(26)   *gwàɗ-á*   *xdí*   *màrkw-á*   *xdí*
        language-GEN Hdi   woman-GEN   Hdi
        'language of Hdi'   'Xdi woman'

(27)   *mghám-á xdí*   → [mghámáxdí]
        chief-GEN Hdi
        'chief of Hdi'

6.2. Functions of modifying constructions head-á modifier

The function of *á* and other demonstratives is to code the noun preceding the demonstrative as the head and the noun following the demonstrative as the modifier. Thus the construction narrows the range of the head. The types of modifiers can be quite diverse:

(28)   *zívr-á*   *xdí*
        origin-GEN   Hdi
        'the origin of Hdi'

(29)   *m̀ndú-á xdí*   →   [m̀ndáxdí]
        man-GEN Hdi
        'a Hdi man'

The construction may involve a container-unit relationship:

(30)   *ìm-á*   *tsá*   *ghwání*   *yá*
        water-GEN DEF   medicine   DEM
        'water of this remedy' (in which the remedy was dissolved)

The construction codes purpose when the modifier is a verbal noun:

(31)   *xgá*   *xàní*
        house   sleep
        'the house for sleeping'

The genitive construction is also used for the expression of quantification when the unit is the head (we do not know what the underlying vowel for *br-* 'flock' is):

(32)	br-á	twàk	'a herd of sheep'
	br-á	gù(-xà)	'a herd of goats'
	br-á	ghàtálàkw	'a brood of chickens'

7. The order modifier head

The order modifier head has been recorded with two types of morphological marking, the genitive marker -á and the comment marker tá. This order seems to defy the transparency of the coding means, for if a given means has function A, it should not have function B, which is the opposite of A. The contradiction in the coding means is, however, only apparent. The modifier head order is applied only when the first component inherently codes property concepts, such as "new", "main", "bad", "another":

(33) lfíd-á   lgùt
     new-GEN   cloth, shirt
     'new clothes'

(34) mghám-á   wúyá
     chief-GEN festival
     'main festival'

(35) índà   ghwádàk-á   skwì   mà   xgá   yà
     all   bad-GEN   thing PREP   home   COP
     'that is all bad things at home'

Here are examples with the word sání 'other, another':

(36)	sán-à skwì	'another thing, something'
	sán-à mìndú	'somebody', 'some man'
	sán-à màràkw	'a certain woman'

8. Possessive constructions

The genitive marker -á is the main means of coding possessive constructions, although the demonstrative ná is also used. The marker -á is used with nominal and pronominal possessors. The general structure of the possessive construction is Possessum -á Possessor. As in other genitive constructions, the genitive marker replaces the last vowel of the head and assumes its tone:

(37)   kr-à   mbítsá
        dog-GEN   Mbitsa
        'Mbitsa's dog' (krì 'dog')

8.1. Possessive pronouns

The possessive pronouns code person (first, second, and third) and number (singular, dual, and plural). Dual is a category of the first person only. The paradigm of the first person also has a distinction between inclusive and exclusive. The construction in which the possessor is pronominal has the form Possessum Demonstrative Possessor. When the possessor is pronominal, only the demonstrative á can be used as a genitive marker. Tone on possessive pronouns is high (see Table 8).

Table 8. Possessive pronouns

Person	Singular	Dual	plural
First	d'á	úí	mú (INCL)
			ŋní (EXCL)
Second	ghá		ghúní
Third	ní		tán/tàn

In contrast to many Chadic languages, there is no distinction between alienable and inalienable possession:

(38)   pìtsákw-á-d'á/ŋní/táŋ
        hoe-GEN-1SG/1PL.EXCL/3PL
        'my hoe/our hoe/their hoe'

(39)   z-ú-zà   tá   hlú'w-á-ní
        eat-SO-eat OBJ   meat-GEN-3SG
        'he ate all of his meat'

(40)   dzv-á-d'á   dèr-á-d'á
        hand-GEN-1SG   hat-GEN-1SG
        'my hand'   'my hat'

If the possessive pronoun begins with a vowel, this vowel replaces the genitive marker and assumes its tone. The tone on the original pronoun remains high. The resulting vowels are rearticulated:

(41)   *pìtsákw-á-úú*   → [pìtsákw-ú-ú]
       ho-GEN-1DU
       'our (DU) hoe'

(42)   *pìtsákw-á-ghúní*
       hoe-GEN-2PL
       'your (PL) hoe'

If the noun ends in a vowel, the final vowel of the noun is deleted and the only vowel between the noun and the possessive pronoun is the genitive marker *á*. The genitive marker has, however, the tone of the syllable whose vowel it replaces. Here is a paradigm of possessive pronouns:

(43)   *krì-á-ŋní*   → [kr-à-ŋní]
       dog-GEN-1PL.EXCL
       'our dog'

       krì-á-ɗá   → [krà-ɗá]
       dog-GEN-1SG
       'my dog'

       krì-á-ghá   → [kràghá]
       dog-GEN-2SG
       'your dog'

       krì-á-ghúní   → [krà-ghúní]
       dog-GEN-2PL
       'your (PL) dog'

(44)   *kóɓù-à-ŋní*   → [kóɓà-ŋní]
       money-GEN-1PL
       'our money'

If the genitive marker *á* is added to a morpheme ending in a, the genitive marker replaces the last vowel of the possessum and assumes its tone:

(45)   *hlà-á-ɗá*   → [hlà-ɗá]
       cow-GEN-1SG
       'my cow'

(46) *xìyá-ɗá*   *xìyá-ŋní*   *hlná-ní*
      guinea corn-1SG   guinea corn-1PL   work-3SG
      'my guinea corn'   'our guinea corn'   'his work'

(47) *ɗá-mú*
      father-1PL.INCL
      'our father'

If the possessive pronoun begins with a vowel, the genitive marker, which has fused with the vowel of the preceding noun, is replaced by the vowel of the possessive pronoun. The only possessive pronoun with an initial vowel is the first-person dual inclusive *uu*. The pronoun is composed of two vowels, and in a possessive construction the first vowel replaces the genitive marker and a glottal stop is inserted between the two instantiations of *u*:

(48) *ɗá-úú* → [dú'ú] (rearticulated vowels)
      father-1DU
      'our father'

The possessive construction with the element *tùrtúkw* 'one' forms the adverb "alone":

(49) *lá-ghú-lá*   *tà*   *lúmá*   *tùrtúkw-á-ní*
      go-D:SO-go   PREP   market   alone-GEN-3SG
      'he went to the market alone'

8.2. Honorific possessives

Some kinship terms, e.g. "mother", "wife", and "husband", require the use of plural rather than singular possessive pronouns, even if the intended possessor is singular. For the third-person singular possessor the possessive pronoun is *tàn*, derived from the plural form *tán*, and glossed here as 3HON for ' third honorific:

(50) *lá-m-à-ní*   *ndá*   *tà*   *zlàŋgwádák*
      go-IN-GEN-3SG   ASSC PREP back entrance
      ngá   *lá-m-à-ní*   *hlà-ná-ghà-tà*
      NORM go-IN-GEN-3SG   find-DEM-D:PVG-REF:SUBJ
      zә'ál-á-tàn
      husband-GEN-3HON
      'Having entered through the back of the compound, she should
      find her husband.'

The plural form *tán* is used when a husband of other women is referred
to:

(51) *lá-m-à-ní*   *ndá*   *tà*   *zlàŋgwàdák*
      enter-IN-GEN-3SG ASSC PREP back entrance
      ngá   *lá-m-à-ní*   *hlà-ná-ghá-tá*
      NORM go-IN-GEN-3SG   search-DEM-D:PVG-REF
      zә'ál-á-tán
      husband-GEN-3PL
      'Having entered through the back entrance, she₁ should find their₂
      husband.' (Note the third- person plural possessive *tàn* rather than
      third singular *nì*.)

The evidence that it is a matter of politeness is provided by the fact that no
such distinctions are made with respect to non-kinship terms:

(52) *ngá*   *hlà-ná-ghá-tà-ní*   *tá*   *kwà*
      NORM search-DEM-D:PVG-REF:SUBJ-3SG   OBJ   calabash
      tá   *ghәŋ-á-ní*
      PREP head-GEN-3SG
      'she₁ should find her₁/₂ calabash'

8.3. Unspecified possessor

The unspecified human subject does not have the corresponding posses-
sor form. Instead, the is coded by the word *mindú* 'man'. The evidence for
this interpretation is provided by the fact that when the unspecified
possessor is involved, the word *mindú* is not accompanied by any
determiners. Moreover, the use of the unspecified possessor causes
further complications in the system of reference. Consider the following
sentences, where the possessum is the father, and the unspecified
possessor is coded by *mindú*:

(53)   *ghùz-á*   *dùxwál*   *tà*   *fúdàkú*   *mándá*
    beer-GEN   adult   IMPF   begin (Ful.)   when
    mtá   *tá*   *dá-ní*   *mà*   *mndú*
    death   PREP   father-3SG   PREP   man
    'The beer of adulthood begins after the death of one's father.'

The speaker now wants to draw the implications of this fact for the sur-viving son. Not having appropriate pronouns to choose from, the speaker settles on the first-person singular pronoun, which in this case does not refer to the speaker:

(54)   *yáwà*   *mtá*   *tá*   *dá-ní*   *mà*   *mndú*   *tà*   *kúm-ày*
    well   death   PREP   father-3SG   PREP   man   IMPF   want-PO
    tá   *màrà-n-tà*   *kà*   *zlày*   *ná*   *ndá*   *gl-íyù*
    OBJ   show-3-REF   SEQ   COMP   COMP   STAT   grow-1SG
    tàmá
    already
    'The death of the man's father would mean that I am already an adult.'

9. Topicalizing modification

The word *ghóŋ* 'head' preceded by the locative preposition *tà* has been grammaticalized to mark the topic of conversation, partially overlapping with the meaning of English "about, on the subject of, etc." In this func-tion, the forms are also followed by the genitive marker and by the modi-fier noun. But unlike in possessive constructions, in the prepositional function the word *ghóŋ* does not constitute one phrasal element with the following noun, and it is so marked by the low tone on the genitive marker:

(55)   *púrkútú ndzúm*   *tà*   *ghóŋ-à*   *hlà*
    story   PREP   head-GEN   cow
    'the story about the cow'

(56)   *púrkútú ndzúm*   *tà*   *ghóŋ-à*   *mbítsá*
    story   PREP   head-GEN   Mbitsa
    'the story about Mbitsa'

(57) nà   ná   gwàɗá   dzà'á   gwàɗ-í   ná   ná
      DEM   DEM   word   FUT   tell-1SG DEM   DEM

      tà   ghəŋ-à   ndzà-kú-á-ɗá   kɗá
      PREP   head-GEN happen-ABS-GEN-1SG   last year

'The story that I am going to tell is about what happened to me last year.'

The interest of this construction lies in the fact that the genitive marker has low tone. The word *ghəŋ* followed by the genitive marker *á* with high tone codes the possessum:

(58) ghəŋ-á   hlà   ghəŋ-á   mbítsá
      head-GEN cow   head-GEN mbitsa
      'head of a cow'   'head of Mbitsa'

10. The collective

The category *collective* is coded by the form *lá* preceding a noun. The form *lá* has not been attested other than in the collective construction. A noun whose collective form is marked by *lá* may be animate or inanimate. A possible analysis of the form *lá* is that it represents the form *lú* followed by the genitive marker *á*. The form *lú* occurs in the language as coding an unspecified human subject. The phonological product of *lú* followed by *á* could well be *lá*.

The form is used to designate members of the same clan:

(59) lá   dəblóm
      COLL   proper name
      'the Diblim people'

      lá   xùtsà
      COLL   proper name
      'the Hutsa people'

The evidence that *la* has grammaticalized as the marker of the collective is provided by the fact that it can occur with nouns meaning "man" and "woman":

(60) lá   mìndə   rxá
      COLL   man   wise
      'wise people'

The collective form is different from the plural, as shown by the fact that it can be used together with the plural form:

(61)   lá   mìí-xà
        COLL   woman-PL
        'womenfolk'

(62)   lá   dghá   mblám
        COLL   blacksmith   pure
        'blacksmiths who make objects of religious cult'[4]

(63)   lá   dghá   mbúldá
        COLL   blacksmith   impure
        'blacksmiths'

(64)   lá   rvèrì
        COLL   king
        'kings' (the term rvèrì also means 'lion'

(65)   lá   rvèrì-xà
        COLL   king-PL
        'kings'

The collective marker may also be used with names of animals. Such names do not take plural marking:

(66)   lá   zídìkw
        COLL   fly
        'flies'

(67)   lá   krì
        COLL   dog
        'dogs!' (an insult)

11. Double modifying constructions

A modification that involves a hierarchy where the modified noun phrase is itself a modifying element may be expressed in at least two ways. In one, the possessive construction is marked by the genitive -á. Several nouns may be linked by the genitive construction:

(68)   *mákwà   mídz-á-ní*
       girl:GEN   mother-in-law-GEN-3SG
       'his fiancée' (lit. 'daughter of his mother-in-law')

(69)   *zwáŋ-á   mídz-á-ní*
       son-GEN   mother-in-law-GEN-3SG
       'her fiancé'

(70)   *ghàl-á   twàk-á-ɗá*
       thief-GEN   sheep-GEN-1SG
       'thief of my sheep'

Several nouns may be joined by the comment marker *tá* (cf. Chapter 19, section 4) and the genitive marker *á*:

(71)   *kwá   tá   pàx-á   xìyá*
       calabash   COM   search-GEN   guinea corn
       'calabash for taking guinea corn out of a granary'

12. Noun *nà* Noun

The construction Noun *nà* Noun is used only in a few fixed expressions related to domestic animals. Since this morpheme is identical with the proximate demonstrative, we gloss it as "DEM". The marker *nà* has low tone, whereas the demonstrative has high tone in most of its usages. The tone used on demonstratives is a coding means for the existential status of the head noun. Low tone on demonstratives codes the *de dicto* domain of the head noun, viz. reference to a type rather than to a token:

(72)   *má   nà   gù*
       mother   DEM   goat
       'a female adult goat' (not 'a mother of a goat')

Consider the word *hlà*, which designates a single bovine animal without any specification of its sex. We gloss it as "cow" because this is the closest lexical item available in English. The modifying construction with *má* 'mother' and *nà* codes a female bovine:

(73)   *má   nà   hlà*
       mother   DEM   cow
       'cow' (there is also a separate lexical item for 'cow' *rvú*)

(74) skwá-skwá-xə̀n tá   má   nà   hlà   tùrtúkw
      buy-buy-3PL   OBJ   mother   DEM   cow   one
      'they bought one cow'

(75) má-nà twàk   má-nà   ghàtákwàl (metathesis
                                                  of ghàtálàkw?)
      mother-DEM sheep   mother-DEM   chicken
      'ewe'   'hen'
      (Eguchi 1971, our morpheme separation and glosses)

The marker nà cannot be used in the possessive function to express kin-
ship terms:

(76) *má   nà   mbítsá
      mother   DEM   Mbitsa
      for 'mother of Mbitsa'

13. Modification through the preposition *ngá* 'for'

The modification relationship between two nominal expressions may also
be coded through the preposition ngá 'for' (glossed as "FOR") in the fol-
lowing construction: Noun ngá Noun. In most cases, this construction is
used where the modifier is the intended owner or destination of the head:

(77) ùvá   ngá-d́á
      cat   FOR-1SG
      'the cat for me'

Nouns followed by the preposition ngá must have high tone, regard-
less of their underlying tones. Thus hlà 'cow', gù 'goat', and krì 'dog' all
have high tone before ngá:

(78) hlá   ngá-ní
      cow   FOR-3SG
      'the cow is for him'

(79) krí   ngá-ghá
      dog   FOR-2SG
      'the dog is for you'

(80) *gú   ngá   pdúmndú*
     goat   FOR   Pdumndu
     'the goat is for Pdumndu'

(81) *mnák   yá   ngá   ní*
     liver   COP   FOR   3SG
     'this liver is for him'

Cf.:

(82) *mnák-á-ní*
     liver-GEN-3SG
     'his liver' (part of the body, or food)

The construction with *ngá* is also used for the coding of expressions designating old females of a species:

(83) *má   ngá   hlà*
     mother   FOR   cow
     'an old cow'

The construction with *ngá* is also used when the modifier is a verb:

(84) *skwì   ngá   z-áy*
     thing   FOR   eat-PO
     'food'

14. Modification through the comment marker *tá*

The modifying construction described in the present section has the fform Noun *tá* Noun. The form *tá* is identical with object marker and also with the marker of the comment clause when the subject is in focus. This functional syncretism may not be accidental. We gloss *tá* as "COM" for "comment marker" because we claim that the modifier is conceived as a comment on the head. The function of the construction is to code an attribute of the head.

Two types of nouns can serve as heads in the construction Noun *tá* Noun: verbal nouns and ordinary nouns.

(85) *mtá   tá   dá-ní   mà   mìndú*
     death   COM   father-3SG PREP   man
     'death of the man's father'

Either intransitive or transitive verbs can be used in such constructions:

(86) glá   tá   zwán   tà   kúm-ày   tá   màrà-n-tà ...
      grow   COM   child   IMPF   want-PO OBJ   show-3-REF
      'the child's growth will show ... '

(87) tà   xúl-á   skál-á   tá   hlà   màmú tàlá
      PREP   back-GEN dance-GEN   COM   bull   exist exorcise
      zàŋwá
      demon
      'In addition to the festivity of the bull there is the exorcising of
      demons.'

The construction Noun₁ tá Noun₂ can be used for ethnicity names.
Interestingly, it is used when the head of a construction refers to a female.
Forms with tá can be replaced in each case by forms with the genitive -á:

(88) mákwà   tá   xdí
      girl   PREP   Hdi
      'a Hdi girl'

(89) mákw-á   xdí
      girl-GEN Hdi
      'a Hdi girl'

(90) màrkwá   tá   xdí
      woman   PREP   Hdi
      'a Hdi woman'

(91) màrkwá   xdí
      woman:GEN   Hdi
      'a Hdi woman'

(92) mákwà   tá   mátákám
      girl   PREP   Mafa
      'a Mafa girl'

(93) mákwà   mátákám
      girl   Mafa
      'a Mafa girl'

For males, the ethnicity name alone can be used:

(94)   sá-ghà-sá   xdí   dáxàwú
       arrive-D:PVG-arrive   Hdi   yesterday'
       'a Hdi man came yesterday'

One can also use the word *mìndú* 'man' in the genitive construction with *-á*:

(95)   mìnd-á   xdí
       man-GEN   Hdi
       'a Hdi man'

(96)   mìnd-á   màrwà
       man-GEN   Maroua
       'a man from Maroua'

An explanation for the different behavior of heads whose referents are female probably reflects the general social status of women at the time the construction with *tá* grammaticalized.

Constructions with *tá* can also be used with inanimate nouns. The construction with inanimates codes the purpose served by the head noun:

(97)   kwà   tá   ghǝn
       calabash   PREP   head
       'head calabash' (red painted calabash worn as headgear)

(98)   lèghúà   tá   ghzú
       calabash (small) PREP   beer
       'calabash for *bilbil*'

(99)   sígà   tá   dàlí
       clay pot (small) PREP   sauce
       'a clay pot for sauce'

(100) lúá   tá   ɓìdá
       sky   PREP   small red millet (fonio)
       'the year of the small millet' (Refers to the year when millet, as opposed to guinea corn, is planted. Millet is planted in the same year as beans.)

These forms cannot be replaced by any other construction involving two nouns. The following forms are all ungrammatical:

(101)   *kwà   *ghə́n*
        calabash:GEN   head
        for 'head calabash'

(102)   *léghúà   *gà*   *ghzú*
        calabash (small)   PREP   beer
        for 'calabash in which *bilbil* beer is served'

(103)   *síg-á   *d'àlí*
        clay pot (small)-GEN   sauce
        for 'a clay pot for sauce'

The forms with *tá* cannot be used for possessive constructions:

(104)   *kwà   *tá*   *sílóà*
        calabash   PREP   Siloa
        for 'Siloa's calabash'

But there are other nouns that can be used with either the marker *tá* or the marker -*á*:

(105)   *dzúmá*   *tá*   *xgá*
        hay   PREP   house
        'hay for the house' (for the roof)

(106)   *dzúm-á*   *xgá*
        hay-GEN   house
        'hay for the house'

There are also nouns that cannot be used with the marker *tá* but that can be used with the genitive marker -*á*:

(107)   *rɓìhl   *tá*   *xgá*
        soil   COM   house
        for 'earth for the house'

(108)   *rɓìhl-á*   *xgá*
        soil-GEN   house
        'earth for the house' (clay from which the house is built)

(109) *dzáw'-á*   *xgá*
      wood-GEN   house
      'wood for the house' (wood used for building the roof of the house)

The order of the head and modifier is reversed if the modifier is inherently a property concept, such as a color term:

(110) *índà* *ngrá* *tá* *skwì* *mà* *xgá* *yà*
      all   black COM   thing PREP home COP
      'that is all black things at home'

15. Coding the notion of belonging

There exists a construction having the form Possessum-Genitive-Pronoun *mà* Possessor, where the pronoun codes the features person and number of the possessor. The form *mà* is identical with the preposition meaning 'within'. The construction is used only when both components, the possessor and the possessum, are nominal. Hence the possessive pronouns added to the possessum may only be third-person singular or plural. The function of the construction is to code the notion of belonging, i.e. a situation where the head, or possessum, is not under the physical control of the modifier:

(111) *kr-à-ní*   *mà*   *m̀ndú/mbítsá*
      dog-GEN-3SG   PREP   man/Mbitsa
      'a dog belonging to a man/Mbitsa'

(112) *kr-à-ní*   *mà*   *màràkw*
      dog-GEN-3SG   PREP   woman
      'a dog belonging to a woman'

(113) *kr-à-tán*   *mà*   *m̀ndú-xà*
      dog-GEN-3SG   PREP   man-PL
      'a dog belonging to men'

The use of the possessive pronoun with *mà* alone is ungrammatical:

(114) **krì*   *mà*   *m̀ndú*
      dog   PREP   man
      for 'dog of man'

The construction with preposition *mà* can be used with kinship terms. The types of kinship terms with which it can (and must) be used and those terms with which it cannot be used provide a clue to its distinct function. The construction is used for coding the parent-child relationship, but not the child-parent relationship or a spousal relationship.

(115) *dá-ní*   *mà*   *mbítsá*
       father-3SG PREP   man
       'Mbitsa's father'

(116) *dá-tán*   *mà*   *zwán-ì*
       father-3PL PREP   child-PL
       'children's father'

(117) *dá-ní*   *mà*   *màràkw*
       father-3SG PREP   woman
       'woman's father'

(118) *má-ní*   *mà*   *mìndú*
       mother-3SG PREP   man
       'man's mother'

As these examples illustrate, the construction is used only when the modifier cannot be higher than the head in the kinship hierarchy.

(119) *mtá*   *tá*   *d-á-ní*   *mà*   *mìndú*
       death PREP   father-GEN-3SG   PREP   man
       'the death of the man's father'

For the child-parent relationship or spousal relationship the genitive marker -*á* is used:

(120) *zwáŋ-á*   *mìndú*
       child-GEN   man
       'man's child'

(121) *màrkw-á*   *mìndú*
       woman-GEN man
       'man's wife'

(122) *zə'ál-á*   *má-ɗà*
husband-GEN   mother-1SG
'my mother's husband' (talking about somebody who is not one's father)

For the parent-child relationship, the genitive construction with the marker *á* is not allowed:

(123) **dá-á*   *m̀ndú*
father-GEN   man
for 'man's father'

Non-human possessors are also allowed:

(124) *m̀ndú-xà* *mà*   *tsá*   *lùwá*   *yá*
man-PL   PREP   DEF   place   DEM
'people of that place'

The evidence that the construction codes belonging rather than physical possession or control is provided by those usages where the possessum is present on the scene but the possessor is not. Thus the following saying is used when one finds something, even a trifle, and one is reminded that even that little object has an owner and may be important for its owner:

(125) *kwá dər*   *zwáŋ-á-ní*   *tsí*   *ná*   *plìs-á-ní*   *mà*
even so   child-GEN-3SG   3SG   COMP   horse-GEN-3SG PREP
m̀ndú
man
'Even if it is small, it is somebody's horse' (i.e., even though it is small, it still belongs to somebody)

The use of the genitive construction is not allowed in such a situation:

(126) **kwá dər* *zwáŋ-á-ní*   *tsí*   *ná*   *plìs-á*   *m̀ndú*
even so   child-GEN-3SG   3SG   COMP   horse-GEN   man
for 'even if it is small, it is somebody's horse'

The construction is also used when the head and modifier are not specific:

(127) mà   kl-í-dî-k-kúní   kwá dər w-à-ní
       PROH take-AWAY-1SG-EP-2PL   any
       mà   kwà   tá   ghən
       PREP calabash PREP head
       'do not bring me any head calabashes'

The construction with the genitive á can be used in the predicative function only if it is followed by the copula yà:

(128) kwá   dər   zwáŋ-á-ní   tsí   ná   plìs-á   mìndú
       even   so   child-GEN-3SG   3SG   COMP horse-GEN   man
       yà
       COP
       'Even if it is small, it is a man's horse'

The construction with mà may be preceded by a question word coding the features human or non-human of the noun following mà::

(129) wà-ní   mà   mìndú   tá   sá-ghà
       who-3SG   PREP   man   COM   arrive-D:PVG
       'what kind of man came?'

16. Coding the absence of specific attributes

The construction coding the absence of an attribute has the form Head kùl Attribute. The form kùl is glossed as "without". The marker kùl may occur with the negative xàdˊ'lack' if the complement is an inherent noun:

(130) tà   zá dàfá   kùl   xàdˊ(ú)   dàlí
       IMPF eat food   without   lack   sauce
       'he is eating mush without sauce'

(131) tà   sà   ghərdí kùl   xàdˊ(ú)   sùkúr
       IMPF drink   gruel without lack   sugar
       'he is drinking gruel without sugar'

If the attribute is derived from a verb, it has the absolutive marker kú:

(132) *hlà-xà*   *kùl*   *ɗùghwáná-kú* *tà*   *xánú-lú*
cow-PL   without   healthy-ABS   IMPF slaughter-UH
tántán
first
'sick cows are slaughtered first'

(133) *m̀də́-xà*   *kùl*   *ɗùghwáná-kú*
man-PL   without   healthy-ABS
'sick people'

17. Modification of nouns by adjectives

The defining characteristic of adjectives adopted in the present work is that of modifying a noun. A lexical item must be considered an adjective if (1) it modifies nouns and (2) it cannot be used as an argument. Terms for size, shape, and quality are adjectives in Hdi; color terms are not.

The group of adjectives includes the following (the exhaustive list of items found in our data): *dágálá* 'large', *kítìkw* 'small', *kì'yá* 'small', *xɓùzá* 'big-bellied', *slùxá* 'oval', *tùmbùzlá* 'round', *tàntàngá* 'hard', *iná* 'good, beautiful, pretty'. The modifying construction with adjectives has the form Noun Adjective, without any intervening marker. This fact is the evidence for the categorization of these terms as adjectives.

Inherent adjectives in attributive function occur after the noun they modify:

(134) *vú*   *kì'yá*   *xvá*   *kwítìk*
fire   small   work   little
'small fire'   'small work'

(135) *m̀ndú-xà* *ɗùghwáná*   *gù*   *dágálá*
man-PL   healthy   goat   large
'healthy people'   'large goat'

(136) *sígà*   *tàntàngá*
pot   hard
'a hard pot'

(137) *índà*   *skwì*   *iná*   *mà*   *xgá*   *yà*
all   thing good   PREP home COP
'that is all good things at home'

Below are examples illustrating the modifying function of adjectives and the inability of adjectives to function as arguments:

(138) ndá   ngh-í   tá   gù   dágálá
      ASSC   see-1SG   OBJ   goat   large
      'I saw a large goat'

Cf.:

(139) *ndá   ngh-í   tá   dágálá
      ASSC   see-1SG   OBJ   all
      for 'I saw a large one'

(140) ndá   ngh-íyù   tá   gù   kítìkw/kì'yá
      ASSC   see-1SG   OBJ   goat   small
      'I saw a small goat'

Cf.:

(141) *ndá   ngh-íyù   tá   kítìkw
      ASSC   see-1SG   OBJ   small
      for 'I saw a small one'

xɓùzá 'big-bellied':

(142) ndá   ngh-íyù   tá   gù   xɓùzá
      ASSC   see-1SG   OBJ   goat   big-bellied .
      'I saw a big-bellied goat'

Cf.:

(143) *ndá   ngh-íyù   tá   xɓùzá
      ASSC   see-1SG   OBJ   big-bellied
      for 'I saw a big-bellied one'

slùxá 'oval', *tùmbùzlá* 'round':

(144) màl   ghán   tùmbùzlá   kà   (ghán)   slùxá
      surpass   head   round   as   head   oval
      ìnà-kwá-ní
      good-ABS:GEN-3SG
      'a round head is nicer than an oval one'

ìná 'good', 'beautiful', 'pretty':

(145) ndá   ńgh-íyù   tá   gù   ìná
       ASSC   see-1SG   OBJ goat good
       'I saw a nice goat'

Unlike other modifying constructions, inherent adjectives do not allow the genitive marker between the head and the modifier:

(146) *gù-á   dágálá
       goat-GEN large
       for 'large goat'

All adjectives listed above may be used as predicates in verbless clauses and also as adverbs.

18. The comparative form of the modifying construction

There are only two degrees with respect to modifying constructions with adjectives: the unmarked and the comparative, the latter corresponding in its scope to the English comparative and superlative. A comparative modifying construction is formed by the use of the copula *yà* following the head noun and preceding the adjective:

(147) m̀ndú   yà   dágálá
       man   COP   important
       'the most important man'

Cf.:

(148) m̀ndú   dágálá
       man   important
       'an important man'

(149) m̀ndú   yà   kítìkw
       man   COP   small
       'the smallest man'

(150) m̀ndú   yà   ndáxídá
       man   COP   wisdom
       'the wisest man'

19. Modification through color terms

Color terms are not adjectives, because in a modifying function they must either be part of a genitive construction marked by *-á* or be preceded by the form *kà* 'like'. Terms for "black" and "white" are formed using the preposition *kà*, which Eguchi defines as 'like', and the word *ŋgrá* 'black' ('areole', in Eguchi 1971) or *ɲúhlín* 'white' ('tooth' in Eguchi 1971). In predicative constructions the color terms precede the subject (Chapter 15, section 5):

(151) *gù-á   ngrá*
       goat-GEN   black
       'a black goat'

       plìs-á   ngrá
       horse-GEN   black
       'a black horse'
Cf.:
(152) *kà   ǹghlíŋ yà   lgùt   yá*
       PREP   white   COP   cloth   DEM
       'that cloth is white'

Here are other examples of modifying constructions:

(153) *ndá   lgùt-á   ngrá   tà   pàdú-lù   tá   m̀ndú*
       ASSC   cloth-GEN   black   IMPF   cover-UH   OBJ   man
       'it is with black cloth that the man is covered'

(154) *nàsàr-á   ngrá*
       white-GEN   black
       'an African boss' (*nàsàr* 'white man')

(155) *ndá   ǹgh-íyù   tá   vdzí-á   dvá* [vdzá dvá]
       STAT   see-1SG   OBJ   monkey-GEN   red
       'I saw a red monkey'

Given the fact that with other modifiers the preposition *kà* codes a lesser degree of a given property or a lack of certainty with respect to a given property, it is possible that the preposition *kà* with color terms may also mean 'having a color like':

(156) ndá   ǹgh-íyù   tá   vdzí   kà   dvá
      ASSC   see-1SG   OBJ   monkey   like   red
      'I saw a red monkey'

(157) ndá   ǹgh-íyù   tá   gù   kà   ngrá
      ASSC   see-1SG   OBJ   goat   as   black
      'I saw a black goat'

Color terms may be used as arguments, which indicates that they are inherently nouns:

(158) ndá   ǹgh-íyù   tá   ngrá   mà   lgùt
      ASSC   see-1SG   OBJ   black   in   dress
      'I saw black [color] in a dress'

(159) ndá   ǹgh-íyù   tá   dvá   mà   lgùt
      ASSC   see-1SG   OBJ   red   in   dress
      'I saw red [color] in a dress'

(160) ndá   ǹgh-íyù   tá   ŋúhlín   mà   lgùt
      ASSC   see-1SG   OBJ   white   in   dress
      'I saw white [color] in a dress'

Some modifiers, including color terms, are derived from other lexical categories through reduplication:

(161) kùzún-kùzún   'green'   cf. kùzún 'fresh leaves'
      rɓìhl-rɓìhl   'gray, clay color'   cf. rɓìhl 'clay'

In a modifying construction the head must be followed by the genitive marker -á:

(162) tà   kúmà-yù   tá   lgùt-a   kùzún-kùzún
      IMPF   want-1SG   OBJ   cloth-GEN   green
      'I want a green cloth' (kùzún 'fresh leaves')

If a noun is modified by a possessor, by a color term, and a definite or a demonstrative form, the sequencing of these components is as follows: Definite Noun Possessor ká Color term Demonstrative.

(163) ṅghà-n-ṅgh-íyù   tá   tsá   hlà   mbítsá   kà   ngrá
       see-3-see-1SG   OBJ   DEM   cow   Mbitsa   like   black
       yá
       DEM
       'I saw Mbitsa's black cow'

We recorded no comparative forms in which the modifier was a color term.

20. Co-reference and disjoint reference in possessive constructions

The word sánì 'another' is exploited in a periphrastic construction to code disjoint reference between the possessor and the subject.

(164) lá-ghú-lá   dà   grá   sán-à   mìndú
       go-D:SO-go   PREP   friend   other-GEN   man
       'he₁ went to the house of his₂ friend' (lit. 'friend of another man')

(165) lá-ghú-lá   dà   grá   sán-à   màràkw
       go-D:SO-go   PREP   friend   other-GEN   woman
       'he went to the house of her friend'

Compare the coding of co-reference through the simple possessive pronoun. The possessive pronoun in such a construction unambiguously refers to the subject of the clause:

(166) lá-ghú-lá   dà   grá-ní
       go-D:SO-go   PREP   friend-3SG
       'he/she went to his/her friend's'

21. Modification through numerals

Modification through cardinal numerals has the order Noun Numeral:

(167) skwì   tùrtúkw
       thing   one
       'one thing'

Modification through ordinal numerals has the form *má* Numeral-Genitive Noun:

(168) *má   xìs-á   màrkwá-tán*
       PREP   second-GEN   wife-3PL
       'their second wife'

22. Noun modified by a quantifier

Quantifiers include the same lexical items that function as adjectives: *tùrtúkw* 'one, alone', *dágálá* 'many', *kítìkw* 'a little', *kĭ'yá* 'some, little', *dímdím* or *démdém* 'a lot', and possibly several others. Constructions with quantifiers have the form Noun Quantifier. Other material, such as a possessive pronoun, may intervene between the noun and the quantifier. Quantifiers do not occur with deictics.

(169) *skw-í-p-skwà   tá   ù'wà   kĭ'yá*
       buy-1SG-OUT-buy   OBJ   milk   little
       'she sold me some milk'

(170) *tághá   tá   skwì   dágálá*
       learn   OBJ   thing   many
       'learn many things'

(171) *s-ù-sà   tá   ghzú   démdém*
       drink-SO-drink   OBJ   beer   all
       'he drank all of the beer'

Quantifiers may follow a verb with its subject, but unlike nouns they are not preceded by the object-marking preposition *tá*:

(172) *tsà-n-ts-í   kítìkw*
       cut-3-cut-1SG   little
       'I tried to cut a little'

(173) *tsá-ts-í   démdém*
       cut-cut-1SG   all
       'I cut everything'

Quantifiers from this group cannot occur in clause-initial position, which provides an argument that they are not adverbs:

(174) *kítìkw   sná-ná-n-sní-í
       a little   hear-DEM-3-hear-1SG
       for 'I heard him a little'

(175) *démdém   sná-ná-sn-í
       all   hear-DEM-hear-1SG
       for 'I heard everything'

Some quantifiers precede the noun:

(176) índà   xìyá-ní   índà   fìtìk
       all   guinea corn-3SG   all   day
       'all his guinea corn'   'every day'

The quantifier *índà* 'all' may occur with the quantifier *démdém* 'all', which follows the noun:

(177) yàghá   tá   índà   xùzlà-xà-dá   démdém   ká-'á
       give me   OBJ   all   good-PL-1SG   all   COMP-3SG
       ' "give me back all my things," he said'

There is a set of quantifier-like expressions consisting of the form *kwá* or *kó* 'every' and a form *dər*. These forms are combined with forms that otherwise function as question words, *wà* 'who', *gà* 'where', and pronouns, resulting in *kwá dər w-à-ní* 'anything', *kwá dər-wá-tsí* 'anybody', *kwá dər-gà-tsí* 'anywhere'. Such forms function as independent arguments:

(178) kwá dər-wá-tsí   xgà-gá-xgà
       anybody   call-INN-call
       'call anybody!'

(179) kwá dər w-à-ní   lgùt   tsí   dzà'á   dìná
       anything   cloth   3SG   FUT   well
       'any cloth will be good'

The form *kwá* is a cognate of and possibly a borrowing from Hausa quantifier *ko*, which also functions as a marker in expressions meaning "everything" and "everybody".

23. Summary of modifying constructions

The potential structures of noun phrases with demonstratives, possessors, quantifiers, adjectival and nominal modifiers are as follows (the term head refers to the head noun):

DEF/DEM Head   GEN   Possessor *ká* Color term DEM

DEF/DEM Head   PREP   Modifier *ká* Color term DEM

The genitive marker is identical with the remote demonstrative. Nominal modifiers are marked by different prepositions.
Two quantifiers precede the head:

sánì-GEN   Head
another

kwá   Head
all

Quantifiers *démdém* all' and *kítìkw* 'little' follow the head.
Numerals as quantifiers follow the noun. Numerals as modifiers (ordinal numerals) form a genitive construction with a noun.

24. The associative phrase

The term *associative phrase* refers to structures Noun Phrase *ndá* Noun Phrase. These structures encompass the functions of associative and co-ordinated conjunctions corresponding to "Noun and Noun" and "Noun with Noun" in English.

24.1. Nouns in associative phrases

Nouns are conjoined in associative phrases by the associative preposition *ndá*. The conjoined structure may occur as either the subject or the object of the clause. If the components of an associative phrase are human, such a phrase must be preceded by the associative plural *ì*:

(180) kà   zà   ì   kɗérì   ndá   zwànànì   tá
       SEQ   live   ASSC:PL Kderi   ASSC   child:PL-GEN-3SG   COM
       m̀ghám
       chief
       'and Kderi and his children lived happily' (lit 'royally')

(181) áyà   tá   ì   gùlú   ndá   zírí   ndá . . .
       give birth   OBJ   ASSC:PL Gulu   ASSC   Ziri   ASSC
       'and he begot Gulu and Ziri and . . .'

If the structure consists of several noun phrases, the associative marker occurs before the last noun only:

(182) zívr-á   xdí   zàmàn-à   gà   xdí
       origin-GEN   Hdi   civilization-GEN   PREP   Hdi
       ndá   m̀ghám-á   wúyá   skwì   gà   xdí
       ASSC   chief-GEN   festival   thing   PREP   Hdi
       'origin of Hdi, civilization of Hdi, and the main festival of Hdi'

24.2. Pronouns in associative phrases

The use of pronouns in associative phrases, whether in the subject or object function, obeys the following rule: If the singular participant is the first member of the associative phrase, it is represented by a plural rather than a singular pronoun. Thus instead of the third-person singular pronoun, the third plural must be used, and instead of the first-person singular, the first plural must be used:

(183) mbàɗ   ká   máyá   kà   rwá-xàn   ndá
       then   COMP   hunger   SEQ   threaten-3PL   ASSC
       zwànà-ní
       child:PL:GEN-3SG
       'then hunger threatened him and his children'

(184) áŋní   ndá   zwàn-à-ɗá   tà   rwá-kú   dà
       1PL.INCL   ASSC   child:PL-GEN-1SG   IMPF   threat-ABS   PREP
       máyá
       hunger
       'I and my children are suffering from hunger'

25. Disjoined noun phrase

For nominal disjunction, contemporary Hdi uses the form *kó* 'or', which is present in two vehicular languages of the area, Hausa and Fula. This form could be a retention from Proto-Chadic or it could be a loan from either Fula or Hausa:

(185) *kl-í-g-ídá-ghà*   *ɗàfá*   *kó* *ghrdí*
       take-EP-INN-AWAY-1SG-D:PVG   mush or gruel
       'bring me mush or gruel'

26. Conclusions

If the modifier inherently refers to an entity, the head precedes the modifier. If the modifier is inherently a property concept, the modifier precedes the head. The type of modification is determined by the morphological marker occurring between the head and the modifier. The markers of the relationship between the head and modifier are the genitive marker *á*, derived from the remote demonstrative; the marker *nà*, derived from the proximate demonstrative; the marker *mà*, identical with the preposition "in"; the marker *ngá*, identical with the preposition "for"; the marker *tá*, identical with the comment marker.

The associative noun phrase marked by the form *ndá* includes the functions of associative and conjoined noun phrases.

Chapter 4

Deixis and anaphora

1. Introduction

The present chapter focuses on two issues: deixis and anaphora. The scope of anaphoric coding includes previous mention in discourse. Sentence-internal anaphoras, such as those in complex sentences or in topicalized or focused arguments, are discussed together with constructions where they may occur.

2. Independent pronouns

Syntactically, independent pronouns behave like nouns; they are not affixes or clitics. These pronouns are used as subjects and objects in pragmatically dependent clauses, as predicates of equational clauses, and as objects of prepositions.

There is no gender distinction in the pronominal system or anywhere else in the grammatical system. In the first-person plural there is a distinction between the inclusive and the exclusive categories. There is also a first-person dual inclusive category. There is no dual for any other person, nor is there a separate first-person dual exclusive. Such a notion is coded by the first person plural exclusive:

Table 9. Independent pronouns

Person	Singular	Dual	Plural
First	*íí*	*úú* (INCL)	*ámú* (INCL)
			áŋní (EXCL)
Second	*kághá*		*kághúní*
Third	*tsátsí*		*xáxən*

The third-person pronoun *tsátsí* is a compound consisting of the previous-mention marker *tsá* and the third-person singular pronoun *tsí*. Support for this hypothesis is provided by the fact that in focus constructions involving pronouns, every pronoun may be preceded by the form *tsá*. The third-person singular pronoun in focus constructions is, however, *tsátsí*

rather than **tsátsátsí*. The variant *tsítsí*, recorded in fast speech, is a result of progressive vowel assimilation.

There exist forms *íŋní* for the third-person singular and *ghúní* for the second-person plural which occur after certain prepositions.

The first-person dual codes "thee and me"; the first-person plural inclusive *ámú* codes "thee, me, and other people with us"; and the first-person plural exclusive *áŋní* codes "me and other people (excluding thee)". The same distinctions between first-person dual, first-person plural inclusive, and first-person plural exclusive are coded by pronominal affixes to the verb and nouns.

There is no independent pronoun for the unspecified human participant, a category coded in subject and possessive paradigms (cf. Chapter 3, section 8.1. and Chapter 6, section 4.3.).

Object pronouns, described in argument coding, serve also as objects of prepositions.

The first- and second-person pronouns are by definition deictic. But the third-person independent pronoun *tsátsí*, possibly composed of *tsá-tsí*, may be used only anaphorically:

(1)   wá   tsátsí   nà
       who   3SG   Q
       'who is that person?' (referring to a person mentioned in discourse)

This expression cannot be used deictically, viz. pointing to somebody. (The tone on *tsá* is high, but it is lower than the tone on *tsí*, which is extra-high by virtue of its being a penultimate tone in the interrogative clause. Cf. Chapter 16, section 2.1.)

3. Deixis

There is a three-way distinction within the deictic system, coding three degrees of distance with respect to the speaker: *á* 'remote', *yá* 'middle distance', and *ná* 'proximate'. The deictic forms can be reduplicated to be used in a clause like independent nouns:

(2)   bà-f-b-í   tá   yá-yá
       build-UP-build-1SG   OBJ   DEM-DEM
       'I built that'

(3)   *bà-f-b-í*   *tá*   *ná-ná*
       build-UP-build-1SG   OBJ   DEM-DEM
       'I built this'

(4)   *bà-f-b-í*   *tá*   *á-á*
       build-UP-build-1SG   OBJ   DEM-DEM
       'I built that thing over there'

Demonstratives do not code the number of the objects they point to or of the nouns they modify. The deictic modifying construction has the form (Demonstrative₁) (Demonstrative₁) Noun (Demonstrative₁) Demonstrative₁, i.e., the demonstrative may occur once after the noun, may be repeated twice before and twice after the noun, twice before and once after noun, once before and twice after the noun. The demonstratives immediately preceding and following the noun have high tone. The first demonstrative in the construction (Demonstrative₁) (Demonstrative₁) preceding the noun has low tone:

(5)   *tà*   *kúmá-í*   *tá*   *ná*   *skálú*   *ná*
       IMPF   like-1SG   OBJ   DEM   dance   DEM
       'I like this dance' (the one I am observing)

3.1. Proximate deictic *ná*

The construction with two demonstratives preceding the noun and one following it is restricted to deictic environments where there is the least distance between the speaker and the referent:

(6)   *nà*   *ná*   *mákwà*   *ná*
       DEM   DEM   girl   DEM
       'this girl here' (immediate proximity; within hand's reach)

With the demonstrative *ná*, there is no difference in meaning between Demonstrative₁ Demonstrative₁ Noun Demonstrative₁ and Demonstrative₁ Noun Demonstrative₁:

(7)   *ná*   *mákwà*   *ná*
       DEM   girl   DEM
       'this girl here' (same distance as in the preceding example)

Evidence for the proximate deictic function of the form *ná* is provided by those clauses in natural discourse where the speaker and the object modified by the deictic forms are at the same location, in proximity of each other:

(8)   *nə*   *tá*   *klà-gá-ghá-f-tà*   *tà*
        what   COM   bring-INN-2SG-UP-REF   PREP
        ná   *fú*   *ná*   *nà*   *ká*   *xəŋ*
        DEM   tree   DEM   DEM   COMP   3PL
        ' "What brought you here to this tree?" they said.' (The addressee and the speaker sit on the same tree.)

(9)   *xìyá-xìyá*   *skwì*   *txà-f-í*   *tà*   *ná*
        guinea corn-guinea corn   thing   expel-UP-1SG   PREP   DEM
        ɗéléwér   *ná*   *ná . . .*
        book (Ful.)   DEM   DEM
        'The kinds of things that I write in this notebook . . .'

(10)   *ká*   *xəŋ*   *mántsá*   *nà*   *ná*   *kɗíx*
        COMP   3PL   thus   DEM   DEM   donkey
        ná   *ná,*   *kɗíx-á*   *xìyá*   *yà*
        DEM   DEM   donkey-GEN   guinea corn   COP
        (Children of the God, having given a donkey to a man) 'Said, "this donkey here is the donkey of guinea corn" '

The demonstrative *ná* may also be used to narrow the meaning of a temporal expression, indicating that the time of the event is the same as the time of speech. In such expressions the demonstrative is not reduplicated. This usage constitutes an argument in support of the hypothesis that reduplication has a deictic function. Time in general or a period of time is not compatible with visual deixis:

(11)   *xvá-à-xən*   *tá*   *vàrà*   *bìt*   *ná*   *wà*
         plant-NEG-3PL OBJ   beans   year   DEM   NEG
         'they did not plant beans this year'

3.2. Middle distance deictic *yá*

The syntactic and tonal properties of the demonstrative *yá* are the same as those of the demonstrative *ná*. The demonstrative *yá* points to a referent in the environment of speech, but at a distance at which the referent cannot

be touched. The construction is felicitous only if accompanied by gestures. Otherwise, it is opaque and uninterpretable.

(12) yà   yá   mìndú   yá
      DEM   DEM   man   DEM
      'that man'

(13) yà   yá   mákwà   yá
      DEM   DEM   girl   DEM
      'this girl' (the girl must be visible)

If there is only one demonstrative before the noun, the distance is closer than if there are two demonstratives before the noun:

(14) yá   mákwà   yá
      DEM   girl   DEM
      'this girl' (closer distance; must be visible)

A noun that is present in the environment of reported speech may be followed by the deictic yá. In the following two sentences, the word sígà 'pot' is marked by the demonstrative yá:

(15) lá-ghà   pákáw ghúvì   kà   mná-n-tá   krì
      go-D:PVG   hyena   SEQ   tell-3-REF dog
      yàgh-ká   dá   ngh-ú   dà   sígà   yá
      should not-2SG   PURP   look-SO   PREP   pot   DEM
      ká-'á   mná-ná-tà
      COMP-3SG   tell-DEM-REF
      'and Hyena said to Dog, "Do not look inside this pot," he told him.'

3.3. Remote demonstrative á and its connection with third-person singular

The remote demonstrative marker á, which occurs rarely in our data in that function, marks objects far away from the speaker:

(16) nə   xg-à-n   'á (á is rearticulated, separate from n)
      what   name-GEN-3SG   DEM
      'what is the name of that thing over there?'

(17) à   á   mákwà   á
      DEM   DEM   girl   DEM
      'that girl' (She is visible but far away. The middle distance
      demonstrative *yá* is used for previous mention in discourse)

There is an interesting connection between the emote demonstrative *á*
and the third-person singular suffix *-á*, which occurs after complementiz-
ers and auxiliary verbs. Not only do both markers have the same phono-
logical form, but they also have identical phonological properties. When
either *á* is added to another form, usually it is word-final, and it does not
constitute a syllable with a preceding segment but is rearticulated. We
conclude that the remote demonstrative *á* and the third-person singular *á*
are the same morpheme.

3.4. Deixis and the presentative function

The form *wúyà* or *wíyà* (a result of vowel fronting) has a presentative
function. Its function is to introduce a new speech fragment:

(18)   wúyá   ká-ŋnì   ndá-xəŋ
       here   COM-1PL.EXCL   ASSC-3PL
       'here is what we told them'

(19)   wúyá   ká   ŋnì   zlrá-f-tà   ndá   fàlák   yà
       here   COMP   1SG.EXCL   start-UP-REF   ASSC   wind   COP
       'here is how we have started: . . .'

The form *wúyà* may well consist of the form *wú* 'which' followed by
the demonstrative *yá*.

4. Anaphora and definiteness

An *anaphor* is used as a reference to an element previously mentioned in
discourse. The term *anaphor* refers to a morpheme that is bound by an el-
ement previously mentioned in discourse. An anaphoric expression may
include a noun accompanied by markers indicating that the noun has been
previously mentioned in discourse. The term *definite* refers to a specific
coding means rather than to a specific function.

4.1. An anaphor as an argument

There are several types of anaphora. Most anaphora are built with the previous-mention marker *tsá*, glossed "DEF" for "definite". The form *tsá* alone, i.e. without any noun, may function as an anaphor for an argument:

(20)   *xàd-ká*   *kà*   *ńghá*   *tsá*   *wà*
        lack-2SG   SEQ   look   DEF   NEG
        'you should not look at it'

(21)   *zá*   *á*   *zwáŋ*   *tá*   *tsá*   *wà*   *ká-'á*
        eat NEG   child   OBJ   DEF   NEG   COMP-SG
        kà   *klá-úgh-tà*   *kà*   *f-ù-d-ú-tà*
        SEQ   take-D:PVG-REF   SEQ   put-SO-ALL-EP-REF
        ' "Children do not eat it," he [Hyena] said, [and he] took it and ate it up.'

The anaphor *tsá* can be used as a modifier of a noun. Its antecedent could be an event previously mentioned in discourse:

(22)   *tà*   *xúlá*   *tsá*   *ngá*   *xgà-f-tá*   *xgà*   *ghúní . . .*
        PREP   back   DEF   NORM   call-UP-REF   call   2PL
        'Afterwards, they would call you up . . .'

The marker *tsá* can also be modified by a demonstrative:

(23)   *bà-f-b-í*   *tá*   *tsá*   *yá*
        build-UP-build-1SG   OBJ   DEF   DEM
        'I built that [thing mentioned in discourse]'

4.2. An anaphor as a modifier

There are different means for the coding of for an argument of the verb, for a locative adjunct, for a proposition. Moreover, there are different means of coding anaphora, depending on the type of argument. The coding of previous mention for the subject is different from the coding of previous mention for other arguments. The general rule is the use of the definite frame *tsá . . . yá*, which surrounds a noun, or follows a noun. If the object has been previously mentioned in discourse, it is marked by the definite frame. The subject is marked by the definite frame if (1) it has been previously mentioned in discourse and (2) it is a new topic. The

frame *tsá* Noun Phrase *yá* is used only when the noun has been mentioned in discourse. If the noun has been mentioned in discourse and is the focus of a clause, the frame *tsá yá* follows the noun:

(24)   *dàgà*   *bàɗ*   *tsá*   *yá*   *dzà'á*   *ghlrá-f-tà*
       from   day   DEF   DEM   FUT   perform-UP-REF
       tsá   *m̀ndú*   *yá*   *tá*   *wúyá*
       DEF   man   DEM   OBJ   rites
       'From that day on the man will perform the rites'

Evidence for the proposed function of the definite marker with the subject is provided by the fact that a sentence with a nominal subject accompanied by the definite marker cannot be the first sentence of a discourse, narrative, and so on. Once a noun phrase has been introduced, its subsequent mention may be accompanied by the definite marker *tsá yá*:

(25)   *tà*   *xúl-á*   *vàkú*   *xìs*   *ngá*   *pgh-ày-ní*   *tá*
       PREP   back-GEN   year   two   NORM   pour-PO-3SG   OBJ
       pghù
       libation
       'After two years he should pour a libation' (i.e., proceed with the initiation)

(26)   *pghù*   *tsá*   *yá*   *dzà'á*   *màrà-n-tá*
       libation   DEF   DEM   FUT   show-3-REF
       snà-n-tà-ní   *tá*   *dàdá-xà-ní*   *ndá*   *mtá*
       know-3-REF-3SG   OBJ   father-PL-3SG   STAT   dead
       dàgà   *dá-ní*   *dá-ní*   *mà*   *dá-ní*   *dá-ní*
       PREP   father-3SG   father-3SG   PREP   father-3SG   father-3SG
       mà   *dá-ní*   *xá*   *gùlú*
       PREP   father-3SG   until   Gulu
       'It is the libation that will make him know his dead parents, back to Gulu.' (Gulu is a forefather whom the *xùtsá*, *kɗáy*, *lúwá*, and *Idə̀blə̀m* clans claim as their ancestor. There are several dozen clans in Hdi.)

In the following sentence from a narrative describing a festivity, the word *m̀ndú* 'man' is enclosed in the definite frame because it refers to somebody previously mentioned in discourse who is also the new topic:

(27)   *ngá*   *sá-bà*   *tsá*   *m̀ndú*   *yá*   *jíbìl*
      NORM   go-OUT   DEF   man   DEM   outdoors
      ndá   *lgùt-á*   *ngrá*   *tà*   *vghá-ní*
      ASSC   cloth-GEN   black   PREP   body-3SG
      'The man should come out wearing black clothes.'

Evidence that the frame *tsá . . . yá* codes previous mention in discourse is provided by the fact that it can be used with possessive pronouns:

(28)   *kà*   *dzà'á*   *gálá*   *tsá*   *zwàn-à-ghá*   *yá*
      SEQ   FUT   raise:PL   DEF   child:PL-GEN -2SG   DEM
      'and you will raise your children' (children have been previously mentioned in discourse)

(29)   *kà*   *lá-ghá-xə̀ŋ*   *ghálá-ghá*   *tá*   *tsá*   *klùgà*   *yá*
      SEQ   go-D:PVG-3PL   steal-D:PVG   OBJ   DEF   dish   DEM
      'and they went and stole the dish'

The following fragment illustrates the use of the definite frame after a focused element that has been mentioned previously in discourse:

(30)   *tà*   *xúl-á*   *skálá*   *tá*   *hlà*   *màmú*   *tàlá*
      PREP   back-GEN   dance-GEN   COM   bull   exist   exorcise
      zàŋwá
      demon
      'In addition to the festivity of the bull there is the exorcising of demons.'

(31)   *tàlá*   *zàŋwá*   *tsá*   *yá*   *tá*   *màrà-n-tá*
      exorcise   demon   DEF   DEM   COM   show-3-REF
      xlə̀-g-í-n-tá   *índà*   *ghwádàk-á*   *skwì*   *mà*
      gather-INN-AWAY-3-REF   all   bad-GEN   thing   PREP
      xgá   *yá*
      home   DEM
      'It is *tàlá zàŋwá* that shows that one has chased away all the bad things from the compound.'

To find evidence for the proposed hypothesis regarding the function of the frame *tsá . . . yá*, consider the use of this marker in the following fragment (tonal notation as in the text written by Roger Prafé). Background: enemies persuaded Kderi to spend the night on the road rather than to go home, saying that there was a lion in the neighborhood.

The fragment begins with a new topic, Kderi. The new topic is coded by a full noun. Although Kderi was mentioned before in discourse, and he is in fact the main protagonist of the story, there are several other characters mentioned in the preceding paragraphs:

(32) *kà   ghlə́ŋ-gá-f-tá   kd̂éri   tá   ghlə́ŋ, kà*
      SEQ   fear-INN-UP-REF   Kderi   OBJ   fear   SEQ
      xàn-tsí   xàdà
      sleep-3SG there
      'Kderi was afraid and spent the night there'

In the next sentence the subject is unspecified human. The object is a donkey, which was also mentioned in the previous discourse. The word *kd̂ìx* 'donkey' is surrounded by the definite frame.

The "previous mention" that qualifies a noun for definite marking does not have to consist of the same lexical item. It may refer to an object that changes its form and name over time. The man at whose house Kderi spent the night has not been mentioned in discourse, but the place was, having been mentioned as "there". Therefore, *m̀ndú* 'man', part of prepositional phrase, is surrounded by the definite marker:

(33) *kà   xə̀ba-ná-tú-lù   tá   tsá   kd̂ìx   yá*
      SEQ   tie-DEM-REF-UH   OBJ   DEF   donkey   DEM
      gà   tsá   m̀ndù   tà   xàn   tsí   gà   taŋ   yá.
      PREP   DEF   man   IMPF   sleep   3SG   PREP   3PL   DEM
      'And the donkey was tied up at [the house of] the man where he was to spend the night.'

In the next sentence the topic switches to enemies, which is marked by the frame *tsá . . . yá*. The object has also been mentioned before in the discourse. It is the same as in the previous sentence and is repeated again, surrounded by the frame *tsá . . . yá*:

(34) *kà   lá-ghá   tsá   tsə̀mə́k-xà-ní   yá*
      SEQ   go-D:PVG   DEF   enemy-PL-3SG   DEM
      mbd̂á-p-tá   tsá   kd̂ìx-á-nì   yá
      replace-OUT-REF   DEF   donkey-GEN-3M   DEM
      ndá   vúvù'úkwá   kd̂ìx
      ASSC   small   donkey
      'And his enemies replaced his donkey with a smaller one.'

In the next sentence the new topic is *Kderi*. It is referred to by the word *mìndú* 'man'. But since it is a new topic, it is surrounded by the frame *tsá . . . yá*:

(35) *hlì'íà-f-tà*   *tsá*   *mndù* *yá*   *tà*   *xánì,*
      wake-UP-REF   DEF   man   DEM   PREP   sleep
      kà'á   *ká-'á*   *ná*   *kdîx-á-ní*   *á*   *wà*
      COMP-3SG   COMP-3SG COMP   donkey-GEN-SG   NEG   NEG
      'When the man woke up, he realized that it was not his donkey.'

The following two sentences illustrate the fact that what determines the use of the definite marker with an object is not the mention of the object itself but rather of the referent. The word *vàrà* 'beans' serves as the antecedent for the phonologically unrelated *mbízà* 'bean dish', which is enclosed in the frame *tsá . . . yá*:

(36) *mbàd́* *ká*   *pákáwá ghúvì* *kà*   *klà-'á-tá*   *vàrà*
      then   COMP   hyena   SEQ   take-PART-REF   beans
      'and Hyena took some beans'

(37) *lá-ghà*   *pákáw ghúvì* *kày*
      go-D:PVG   hyena   INTERJ
      kà   *lá-b*   *díngà*   *tsá*   *mbízà*   *yá*
      SEQ   go-OUT   put on the fire   DEF   bean dish   DEM
      'Then, Hyena put the bean dish on the fire.'

The fact that a noun has been mentioned before does not automatically mean that its subsequent mention, even under the condition of co-reference, will be marked by a demonstrative or the definite frame. In the same folktale from which the preceding two examples were taken, the subsequent mention of *mbízà* 'bean dish' several sentences after its previous mention is not accompanied by any deictic or previous-mention marker. The noun does not play an important enough role in the clause; it is just the object of a preposition:

(38) *kà*   *l-íyù*   *ngás-í-n-tá*   *vú*   *mìstá*
      SEQ   go-1SG   push in-AWAY-3-REF   fire   under
      mbízà   *ká*   *pákáwá ghúvì*
      bean dish   COMP   hyena
      ' "I have to push in the fire under the bean dish," said Hyena.'

Similarly in the following fragment:

(39) *lá-bà   krì   yá   mbàď   ká-'á   kà*
     go-OUT   dog   DEM   then   COMP-3SG   SEQ
     gùnà-ná-f-tá   sígà
     open-DEM-UP-REF   pot
     'When Dog₁ went, he₁ opened the pot.'

(40) *kà   á   ká-'á   ǹghà-dá-tà   ná*
     SEQ 3SG   COMP-3SG   look-ALL-REF COMP
     zwàn-à-ní   mà   sígà
     child:PL-GEN-3SG   PREP   pot
     'And he saw that his children were in the pot.'

A noun followed by a possessive pronoun may be marked for previous mention in discourse:

(41) *tsá   kďíx-á-ní   yá*
     DEF   donkey-GEN-3SG   DEM
     'the donkey of his'

The definite marker *tsá* may be the only modifier of a noun, i.e. occurring without the demonstrative *yá*. When this is the case, the definite marker *tsá* follows rather than precedes the noun:

(42) *ɓxà-dá-gh-í   tví   tsá   wà*
     pass-ALL-D:GO-1SG   place   DEF   NEG
     'I did not pass by there' (referring to a place mentioned before in discourse)

5. Specific and non-specific "child"

One noun, *zwáŋ* 'child', in its singular and plural forms, serving as direct object or as possessum, distinguishes the specific, definite, known noun in the domain, as opposed to general, non-specific noun in the domain *de dicto*. The distinction is coded through tonal changes on the noun.

(43) *mbàď ká-'á   kà   xlá-f-tá   zwàn-à   krì*
     then   COMP-3SG SEQ   gather-UP-REF child:PL-GEN dog
     'And then he gathered the children of Dog'

Retaining the high tone on the noun gives a quite different meaning, where the possessor is general, in the domain *de dicto*:

(44)   *mbàɗ ká-'á*   *kà*   *xlá-f-tá*   *zwán-à*   *krì*
        then   COMP-3SG SEQ   gather-UP-REF   child:PL-GEN   dog
        'And then he gathered the puppies'

The use of low tone alone, without any other determiners, codes the specificity of the noun:

(45)   *ndá*   *bághá*   *zwàŋ*
        STAT   satisfied   child
        'the baby/child is satisfied'

No other nouns have been recorded marking this distinction:

(46)   *ndá*   *bághá*   *m̀ndú*
        STAT   satisfied   man
        'the man is satisfied'

(47)   **ndá*   *bághá*   *m̀ndù*
        STAT   satisfied   man
        for 'the man is satisfied'

5.1. The coding of locative anaphora

Locative anaphora can be coded by several means. One is through the use of the form *tví* 'place' followed, not preceded, by previous-reference marker *tsá*:

(48)   *ɓxà-dá-gh-íyù*   *tví*   *tsá*   *wà*
        arrive-ALL-D:PVG-1SG   place   DEF   NEG
        'I did not arrive there' (to a place mentioned earlier in discourse)

Compare the deictic:

(49)   *ɓxà-dá-gh-í*   *tví*   *á*   *wà*
        arrive-ALL-D:PVG-1SG   place   DEM   NEG
        'I did not arrive there' (deictic)

Another means is through the use of the previous-mention marker *tsá* preceded by locative preposition(s). Thus the preceding example (48) is followed in the conversation by a sentence where the locative anaphora is coded by the locative preposition *tà* preceding the anaphora-marking *tsá*:

(50) lá   à   ká   ndá   tà   tsá   wú
      go   NEG   2SG   toward PREP   DEF   NEG
      'You did not go there?'

An anaphor for time expression is also enclosed in the definite frame.

(51) wùyà   ká   xə̀ŋ   tà   mág-áy   mà   tsá   fitík
      here is COMP   3PL   IMPF   do-PO   PREP   DEF   time
      yá   tàmá
      DEM   now
      'that is how they made it during that time'

5.2. The propositional anaphor

The anaphor *tsá* also has the function of propositional anaphora, referring
to previous statements:

(52) tà   xúl-á   tsá   mántsá kà   lá-f-í   dá
      PREP   back-GEN   DEF   then   SEQ   go-UP-1SG   PREP
      mókólò
      Mokolo
      'Afterwards I went to Mokolo.'

The anaphor referring to a premise mentioned before in discourse,
corresponding to English "therefore", is the particle *kày*, often realized
as *kè*, which occurs at the end of the clause. The previous-reference
marker *tsà* has low tone when it follows the complementizer *ká*. The
previous-reference marker thus behaves in the same way as subject
pronouns, which also have low tone when following the complementizer
ká:

(53) ká   tsà   m̀ghám   yá   kày   ná . . .
      COMP   DEF   chief   DEM   therefore   COMP
      'The chief said that therefore . . .'

(54) bà-f-b-í   tá   tsá   xgá   yá   kày
      build-UP-build-1SG   OBJ   DEF   house   DEM   therefore
      'Therefore I built the house.'

6. Conclusions

A noun may be modified by one of the following deictic demonstratives: proximate *ná*, middle distance *yá*, or remote *á*. The demonstrative typically precedes and follows the noun. If a noun is modified by another noun and the phrase is marked by a demonstrative, the phrase has the structure Noun Modifier Demonstrative.

There is a construction specifically encoding previous mention in discourse. This construction consists of the frame *tsá . . . yá* surrounding the noun phrase or *tsá yá* following the noun phrase in focus. Although we gloss the construction as "definite", it is used only for previously mentioned nouns that are also sentence topics.

Chapter 5

Verbal root and stem

1. Introduction

There are three basic verbal categories in Hdi: root, simple stem, and reduplicated stem. There is a considerable distinction between the role of consonants on the one hand and the role of vowels and tone on the other. This distinction is only partially similar to the one encountered in Semitic languages. The root is the verbal form from which through regular morphological processes, mainly the addition of vowels and tonal changes, various verbal stems are derived. Complete or partial reduplication is a coding means for a variety of functions.

The present chapter describes the properties of roots and the mechanisms of inflectional and derivational morphology applying to verbal roots and stems. The function of each form is described in subsequent chapters.

2. The verbal root and thematic vowels

Unlike nouns, verbs cannot begin with a vowel. This constitutes a fundamental phonological difference between the two categories. The onset of the verb may consist of a single consonant or a cluster consisting of two consonants: *z̃* 'eat', *s̃* 'drink', *kl* 'take', *m̃* 'have sexual intercourse', *ndzv̂* 'attach, connect'. Whether a verb begins with a single consonant or with a cluster of consonants has implications for the formation of plural forms of verbs.

The individual, unpredictable components of the verb are the tone, the consonantal structure, and, in case of polysyllabic verbs, the first vowel. These elements constitute the underlying form of the verb, the root. The existence of the category *root* is provided by two arguments. The first is the existence of alternations of verbal forms whereby some forms end in vowels *a* or schwa:

(1)   mbàɗ ká-xǝn   kà   ɗg-á   xìyá
       then   COMP-3PL   SEQ   thresh   guinea corn
       'and they thresh guinea corn'

(2)   mbàɗ ká-xǝn   kà   ɗg-á-tá   xìyá
       then   COMP-3PL   SEQ   thresh-REF   guinea corn
       'and they threshed guinea corn' (finished threshing)

(3)   mbàɗ ká-xǝn kà   ɗgǝ
       then   COMP-3PL SEQ   thresh
       'and they started/got into threshing'

The second argument for the existence of the category *root* is that the vowels code specific syntactic or semantic functions of the subject, the point of view from which the event is presented, the type of clause, and the aspect.

Schwa in verbal forms is an epenthetic vowel, whose presence is motivated by syllable structure constraints and by the need to realize the tone of the verb, since the tone carries both lexical and grammatical functions:

(4)   kà   zá-tsí   tá   skwì
       SEQ   eat-3SG   OBJ   food
       'let him eat!'
Cf.:
(5)   kà   zǝ-tsí   tá   skwì
       SEQ   eat-3SG   OBJ   food
       'and he is/was eating'

(6)   kà   sǝ-tsí
       SEQ   drink-3SG
       'and he is/was drinking'

(7)   kà   sà-tsí
       SEQ   drink-3SG
       'he should drink'

(8a)   kà   lǝ-tsí
       SEQ   go-3SG
       'and he was going'

(8b)   *kà*   *lá-tsí*
　　 SEQ   go-3SG
　　 'and he should go'

3. The underlying tone of the verb

Monosyllabic verbs can have either high or low tone. Bisyllabic verbs display all possible combinations of high and low tones. The underlying tone of a verb can be discovered by examining different verbs in the same syntactic and morphological environments. One of such environments is the imperfective form of the verb in pragmatically dependent clauses. This form has no vowel other than the epenthetic schwa. Unlike the tone of other aspectual forms, the tone of such a form is not affected by the subject pronoun that follows it:

(9)   *ghzú*   *tà*   *sə̀-ká*　　　*xìyá*   *tà*   *zə̀-ká*
　　 beer   IMPF   drink-2SG　　 corn   IMPF   eat-2SG
　　 'it is beer that you drink'　 'it is corn that you eat'

　　 ghzú   *tà*   *sə̀-tsí*　　　*xìyá*   *tà*   *zə̀-tsí*
　　 beer   IMPF   drink-3SG　　 corn   IMPF   eat-3SG
　　 'it is beer that he drinks'　 'it is corn that he eats'

　　 ghzú   *tà*   *sì-í*　　　*xìyá*   *tà*   *zí-í*
　　 beer   IMPF   drink-1SG　　 corn   IMPF   eat-1SG
　　 'it is beer that I drink'　　 'it is corn that I eat'

In order to determine the underlying tone of the verb, we examine these forms when the verbs differ, e.g. before a vowel-initial suffix such as source-oriented marker *ú* or goal-oriented marker *a*, before the potential object marker *-ay*, and the verb in the independent imperfective aspect. The following examples illustrate the use in this environment of the verbs *zà* 'live' and *zá* 'eat':

(10)   *kà*   *zə̀*   *ì*   *kɗérí*   *ndá*   *zwàn-à-ní*   *tá*
　　 SEQ   live   ASSC:PL   Kderi   ASSC   child:PL-GEN-3SG   PREP
　　 m̀ghám
　　 chief
　　 'and Kderi and his children lived happily'

(11)   *kà   zɔ̀ ì   kɗérí   ndá   zwàn-à-ní   tá*
        SEQ   eat ASSC:PL   Kderi   ASSC   child:PL-GEN-3SG   PREP
        m̀ghám
        chief
        'and Kderi and his children ate royally' (elicited)

Verbs retain their underlying tone in the imperative form:

(12)   *zá*   'eat!'   *zà*   'forget!'
        pghà   'accompany him!'   *pghá*   'pour!'
        sà   'drink!'   *sá*   'come!'

Tonal differences between verbs can also be observed in the perfective form, which is coded by reduplication. The examples below are organized in pairs representing such contrasts:

(13)   *zà-p-zà*
        disappear-OUT-disappear
        'it has been forgotten'

(14)   *zá-p-zá*
        eat-OUT-eat
        'he ate up something'

(15)   *sà-p-sà*
        drink-OUT-drink
        'he drank up'

(16)   *sá-p-sá*
        arrive-OUT-arrive
        'he came out'

(17)   *sá-ghà-sá*
        arrive-D:PVG-arrive
        'he came'

(18)   *sà-ghá-sà*
        drink-D:PVG-drink
        'he drank and went away'

(19) *zá-ghá-zá*
eat-D:PVG-eat
'he ate and went away'

(20) *pghà-dá-p-pghà*
accompany-ALL-OUT-accompany
'he accompanied him going out'

(21) *pghə-dá-ná-p-pghá*
pour-ALL-DEM-OUT-pour
'he poured out something for him'

Another environment where the tonal difference between verbs manifests itself is in the citation form of the verbs readily given by the speaker. For many verbs the citation form includes the suffix -*ay*. The tone on this suffix for monosyllabic verbs varies, which can be explained by the fact that the suffix assumes the underlying tone of the verb:

(22)
z-áy	'eat'	*z-ày*	'be forgotten, disappear'
бl-áy	'break'	*s-ày*	'drink'
ts-áy	'cut'	*d-ày*	'cook'
pgh-áy	'pour'	*dz-ày*	'kill, hit'
kl-áy	'take'	*b-ày*	'build'
tsgh-áy	'send a thing'		

With bisyllabic verbs the suffix -*ay* also has different tones, which clearly indicates that both syllables of the verb have an inherent tone:

(23)
ɗáw-áy	'ask'	*ghùn-ày*	'send a person'
xwáy-áy	'run'	*tsúx-ày*	'cough'
ɗíf-áy	'hide'	*dál-ày*	'nail down'
ɗghàɗ-áy	'chew'		
ngàts-áy	'have'		

Thus the single tone of monosyllabic verbs and the two or more tones of polysyllabic verbs constitute part of the underlying structure of the verb. The underlying tone of the verb (as of many other morphemes) may change, because tone is a coding means and various functions are coded by different tones. In particular, the high tone of the verb is a coding means that indicates direction toward a goal, including the dative, rather than a direct function for pronominal objects.

4. Number coding in verbs

There are three means to code the plurality of the verb: suffix á, reduplication, and lexical suppletion. The coding of plurality through suppletion is in the domain of lexicon, and therefore its form is not predictable. The two other means, however, correlate with the segmental structure of the verb, more specifically with the number of consonants.

5. Plural marking through the infix -a-

The plural marker á is used only with polyconsonantal verbs. The marker á is inserted after the first consonant of the verb: Thus the plural form of the verb xná 'slaughter' is x-á-ná:

(24)   kà   x-á-ná-tá   gù-xà
       SEQ   slaughter-PL-REF   goat-PL
       'he slaughtered goats'

(25)   pákáw   tá   kásá-tá   xən
       leopard COM   catch-PL-REF   3PL
       'a leopard caught them'
Cf.:
(26)   ksá-f-ksá   tá   gù
       catch-UP-catch   OBJ   goat
       'he caught a goat'

The plural form of the verb, unlike other inflectional forms of the verb, is included in both parts of the reduplicated verb:

(27)   x-á-ná-x-á-ná   tá   hlá
       slaughter-PL-slaughter-PL OBJ   cow
       'he slaughtered cattle'
Cf.:
(28)   xná-xnà   tá   hlá
       slaughter-slaughter   OBJ   cow
       'he slaughtered a cow'

The formation of plural stems through á insertion allows us to determine whether the initial sound of a verb is a consonant cluster or a single segment. The prenasalized stop ng turns out to be a single segment:

(29)   *tà   ng-á-l-áy   tá   plìs-xà*
       IMPF   mount-PL-PO   OBJ   horse-PL
       'he mounts horses' (singular *nglá*)

(30)   *tà   ngl-áy   tá   plìs*
       IMPF   mount-PO   OBJ   horse
       'he mounts a horse'

The plural form of monoconsonantal verbs, such as *yà* 'to give birth', *dà* 'cook', *tsà* 'cut', is not derived through suffix *á*. These verbs form their plurals through reduplication instead.

6. Verbal plural through reduplication

Monoconsonantal verbs and several biconsonantal verbs form their plural through reduplication. There are different rules of reduplication for the non-consonantal verbs and for polyconsonantal verbs. For monoconsonantal verbs the formation of the plural through reduplication also involves the use of the plural infix *á*.

The process of plural formation involves the following steps: The first consonant of the verb is reduplicated leftward. For the verb *yà* 'to give birth', the reduplication yields the form **y-yà*. The next step is the insertion of the plural-forming vowel *á* (with high tone) after the first consonant, yielding the form *yáyà*. If such a form is used in the perfective of pragmatically independent clauses, the whole verb is reduplicated:

(31)   *yá-yà-yá-yà*   *tá*   *xàn*
       give birth:PL-give birth:PL   OBJ   3PL
       'she gave birth to them'

Compare the singular form of the verb:

(32)   *yà-yà*   *tá*   *zwáŋ*
       give birth-give birth   OBJ   child
       'she gave birth to a child'

Consider now the derivation of the plural form of the verb *sà* 'drink' with the source-oriented marker *u*. First the consonant (without the tone) of the verbal root is reduplicated in front, giving the form **s-sà*. Then the plural infix *á* is added after the first consonant, yielding the form *sásà*. Then the source-oriented marker *u* is added to the verbal root, yielding the

form *sásù*. The reduplication of the verb in the perfective aspect does not involve the reduplication of the source-oriented marker *u*, yielding the form:

(33)   ˙*s-á-s-ù-s-á-sá-lú*
        drink-PL-drink-SO-drink-PL-drink-UH
        'one drank them, one after another'

By a similar process the plural form of the verb *zá* 'eat' is derived:

(34)   *z-á-z-ú-z-á-zá*   *tá*   *xɘn*
        eat-PL-eat-SO-eat-PL-eat   OBJ   3PL
        'he ate them, one after another'

The source-oriented marker *u* may also be added to the first reduplicated part of the verb, after the plural marker *á* has been inserted, resulting in the pattern C-*á*-*ù*-C-CaCa. The fusion of *a* and *u* results in the vowel *o*. The tone on the resulting vowel *o* is high, representing the tone of the plural marker *á*.

(35)   *só-s-sá-sà*
        drink:PL:SO-drink-drink-drink
        'he drank them all, one after another'

(36)   *zó-z-zá-zá*
        eat:PL:SO-eat-eat-eat
        'he ate them all, one after another'

For bisyllabic verbs, the plural is formed by repeating leftward the first syllable. In the perfective aspect the reduplicate theme of the verb is repeated twice:

(37)   *ɗá-ɗáxá-ná-f-ɗá-ɗáxá*   *tá*   *lgùt-á*   *zwán-ì*
        PL-sew-DEM-UP-PL-sew   OBJ   dress-GEN   child-PL
        'he sewed the children's clothing'

That it is the first syllable that is reduplicated rather than the first consonant is shown by the fact that the vowel of the first syllable of the verb is also the vowel of the reduplicated syllable:

(38)   *dí-dífà-ná-dí-dífà*   *tá*   *sígà*
PL-hide-DEM-PL-hide   OBJ   pot
'he hid one pot after another'

(39)   *bú-búkwá-ná-ghá-bú-búkwá*   *tá*   *búkà*   *tá*   *zwán-ì*
PL-cover-DEM-D:PVG-PL-cover   OBJ   cover   OBJ   child-PL
'he covered one child after another'

7. Suppletive plural

Many plural verbs are not lexically or morphologically related to their singular counterparts. The verb *skwá* 'to buy' with extensions *p* 'OUT' or *í-n* 'AWAY-3' means 'to sell one thing'. The verb *dzáwá* means 'to trade a plural object'. Consequently, the object of *dzáwá* does not have to be marked for plural. The object of *skwá* has to be marked for plural if plural is the intended meaning:

(40)   *tà*   *dzáw-áy-dzáw-áy*   *tá*   *hlà-(xà)*
IMPF   buy.PL-PO-buy.PL-PO   OBJ   cow-PL
'he is buying/selling cows'

(41)   *skwá-p-skwá*   *tá*   *hlà*
buy-OUT-buy   OBJ   cow
'he sold a cow'

(42)   *tà*   *skw-áy-skw-áy*   *tá*   *hlà-xà*
IMPF   buy-PO-buy-PO   OBJ   cow-PL
'he buys cows'

Lexically plural verbs may not be used with objects overtly marked for singulative, but they may be used with singular objects, i.e. objects not marked for plurality:

(43)   **tà*   *dzáw-áy-dzáw-áy*   *tá*   *hlà*   *tùrtúkw*
IMPF   buy.PL-PO-buy.PL-PO   OBJ   cow   one
for 'he is buys/sells one cow'

Singular verbs that have lexical plural counterparts cannot be reduplicated to show plurality (*ksà* 'take one thing' vs. *mbà* 'take many things'):

(44)   *ksà-dá-f-ksá*   *mbítsá*   *tà*   *lúmá*
    take.SG-ALL-UP-take   Mbitsa   PREP   market
    'Mbitsa took it to the market' (market at higher elevation)

(45)   *mbà-dá-f-mbá*   *mbítsá*   *tà*   *lúmá*
    take.PL-ALL-UP-take   Mbitsa   PREP   market
    'Mbitsa took them to the market' (market at higher elevation)

(46)   **ksà-ksà-dá-f-ksá-ksá*   *mbítsá*   *tà*   *lúmá*
    take.PL-ALL-UP-take   Mbitsa   PREP   market
    for 'Mbitsa took them to the market'

Plural verbs cannot be reduplicated in the same manner as singular verbs that have no lexical plural counterparts:

(47)   **mbà-mbà-dá-f-mbá-mbá*   *mbítsá*   *tà*   *lúmá*
    take-PL-ALL-UP-take   Mbitsa   PREP   market
    for 'Mbitsa took them to the market'

8. Functions of verbal plurality

The plural form of the verb, regardless of how it is coded, indicates plurality either of the subject of an intransitive verb or of the object of a transitive verb. The plural coding of the verb therefore has ergative characteristics, a phenomenon attested in other Chadic and non-Chadic languages (Frajzyngier 1985c, 1997). Here is an example of plural coding with an intransitive verb:

(48)   *d-á-ɗà-gá-d-á-ɗà*
    fall-PL-INN-fall
    'they fell down'
Cf.:
(49)   *dɗà-gá-dɗà*
    fall-INN-fall
    'he fell down'

When the verb is transitive, the plural marker on it codes plurality of object or action. The object does not have to be marked for plural:

(50) *snà-n-sn-íyù*   *tá*   *x-á-n-áy-tán*   *tá*   *hlà*
hear-3-hear-1SG   OBJ   cut-PL-PO-3PL   OBJ   cow
'I heard them slaughtering cows'

Cf.:

(51) *snà-n-sn-íyù*   *tá*   *xn-áy-tán*   *tá*   *hlà*
hear-3-hear-1SG   OBJ   cut-PO-3PL   OBJ   cow
'I heard them slaughter a cow'

The plural verb has ergative characteristics in that it codes only the plural subject of the intransitive verb or the plural object of a transitive verb. Consider the verb *6lá* 'break'. When the subject of this verb is affected and there is no controller, the verb has the vowel *ú*:

(52) *6l-ú-6là*   *zlìgàmà*   *yá*   *fú*   *yá*
break-SO-break   branch   DEM   tree   DEM
'a branch of that tree has broken'

The plural form of the verb indicates that many branches broke:

(53) *6ál-ú-6álá*   *zlìgàmà-xà*   *yá*   *fú*   *yá*
break-PL-SO-break   branch-PL   DEM   tree   DEM
'branches of that tree have broken'

The plural reduplicated form cannot be used with an object explicitly marked as single:

(54) *tsá-tsá-tsá-tsà   *tá*   *fú*   *tùrtúk*
cut-cut-cut-cut   OBJ   tree   one
for 'he cut one tree' or *'they cut one tree'

Cf.:

(55) *tsá-tsà*   *tá*   *fú*   *tùrtúk*
cut-cut   OBJ   tree   one
'he cut one tree'

If the object is not marked as single, i.e., if the form of the noun unmarked for number is used, the plural form of the verb indicates plurality of the object:

(56) *tsá-tsá-tsá-tsá-tsà*   *tá*   *fú*
cut-cut-cut-cut-cut   OBJ   tree
'he cut many trees'

There is an interrelationship between nominal and verbal marking of plurality, whereby if number is marked on the verb, either lexically or grammatically, it does not have to be marked on the noun, and if it is marked on the noun, it does not have to be marked on the verb. The noun does not have to be marked for plurality when it is followed by a numeral larger than one.

9. Functions of thematic vowels

The vowels occuring within the verbal root are called thematic because they derive various stems of the verb. A given root may be lexicalized with a thematic vowel, and such a form may serve as a source for further inflectional and derivational changes.

9.1. The problem

In the reduplicated form of the verb, the second reduplicated part ends in the vowel *a* unless the following subject pronoun begins with a vowel. The non-reduplicated verb or the first part of the reduplicated verb may end in the vowels *a, u, i,* and schwa. The schwa represents an epenthetic vowel; hence, it should be treated as the absence of a vowel, still a fourth possibility with respect to vowel alternations in the verb. One needs to describe the functions of the three vowels and of the form with schwa. The functions of the vowels *u* and *i* are relatively transparent, but the function of the vowel *a* is not. Eguchi 1971 represents all verbs with the final vowel *a*. And indeed verbs end in this vowel in the great majority of syntactic constructions. Yet, assuming that *a* is an underlying part of every verb would be to accept a very strange view whereby the underlying segments do not carry the function of distinguishing one morpheme from another. One cannot postulate that *a* is a derivational morpheme deriving verbs, because one cannot derive a verb from any other lexical item through the addition of the vowel *a*, or indeed through any other means. Therefore, we describe the functions of vowels by delineating first those whose functions are relatively narrow, and the function of *a* will emerge as an "everything else" function, which can nevertheless be formulated in a more narrow sense.

In our presentation of vocalic functions we start with the marked cases of the vowel *u*, the vowel *i*, and the zero vowel, and we contrast them with the vowel *a* and with each other when appropriate.

9.2. A hypothesis concerning verb-final vowels

The two vowels *u* and *a* are involved in the coding of the distinctions that we shall call "source-oriented" and "goal-oriented". Speakers choose to represent the event from one or the other point of view in a way similar to the way they choose to represent participants, aspect, or any other grammatical category coded in the language. The terms *source* and *goal* designate clusters of functions. The *source* includes the subject of the clause and for verbs of movement the place from which the movement originates. The *goal* includes direct and objects and the place or spatial configuration toward which movement is directed. Here is a simple illustration. The verb *gún* 'open' with the source-oriented marker indicates that the subject is affected:

(57) gún-ú-gúná   sígà
      open-SO-open pot
      'the pot opened'

Inserting the goal-oriented marker rather than source-oriented marker into the verbal form results in the nonsensical (58):

(58) gúná-gúná   sígà
      open-open   pot
      'the pot opened something'

(59) bl-á-blà   tá   xàsú'ù
      break-PVG-break   OBJ   branch
      'he broke off a branch'

(60) bl-ú-blá   xàsú'ù
      break-SO-break   branch
      'the branch broke off'

Inherently transitive verbs can have the point of view markers added directly to the root. When the source-oriented marker *u* is added to these verbs, they assume the tone of the root. The verbs *z* 'eat' and *s* 'drink' are realized as [zú] and [sù], and these forms mean "to eat one's fill" and "to drink to one's satisfaction":

(61) z-ú-zà
      eat-SO-eat
      'he ate his fill'

(62)   *s-ù-sà*
       drink-SO-drink
       'he drank his measure'

These constructions have direct correspondence to the so-called reflexive glossed as "REFL" forms of many Indo European languages:

(63)   *El   se   comió...*
       3SG:M   REFL   eat
       'He had his fill of ...'

(64)   *El   se   tomó...*
       3SG:M   REFL   drink
       'He gorged himself with ...' (Spanish, cf. Maldonado 1999)

With other transitive verbs the source-oriented marker indicates that the event occurred for the benefit of the subject. Consider the verb *hlí* 'to forge'. The evidence that the marker *u* means that the forging is done for the benefit of subject is provided by the fact that one cannot add a benefactive phrase marked by *ngá* to a phrase whose verb has the vowel *u*:

(65)   *hlr-ú-hlrà*   *tá*   *pìtsákw*   **ngá-dà*
       forge-SO-forge   OBJ   hoe   FOR-1SG
       'he forged himself a hoe'
Cf.:
(66)   *hlrá-f-hlrà*   *tá*   *pìtsákw*   *ngá-dà*
       forge-UP-forge   OBJ   hoe   FOR-1SG
       'forge a hoe for me!'

(67)   *hlrí-dí-f-hlrà*   *tá*   *pìtsákw*
       forge-AWAY-1SG-UP-forge   OBJ   hoe
       'he forged a hoe for me'

The point of view markers may be added after the extension *gh* coding movement on a level. The tone on the marker is high if the movement does not involve arrival, and it is low if the movement does involve arrival. Since the source-oriented marker always codes departure and not arrival, it always has high tone. The goal-oriented marker *a* has high tone after the movement extension *gh* when arrival is not involved and low tone when arrival at the goal is involved:

(68)   *lá-là*   'he descended'
     lá-ghú-lá   'he left [the place where the speaker is]'
     lá-ghà là   'he arrived [at a place other than the one where the speaker is]'

The verb *sá* 'come' may occur with the goal-oriented marker, but it cannot occur with the source-oriented marker. This constraint is explained by the semantic contradiction such a combination would produce, something to the effect of '"*come away from here"*. Use of the goal-oriented marker with the movement extension does not result in a difference in meaning between the verb *sá* followed by the goal-oriented marker and the verb alone:

(69)   *sá-sà*   'he descended to find me' (he came)
     sá-ghà-sá   'he came'

A schwa occurs as the verb-final vowel in certain environments. There is a schwa before the allative extension *dá* when there is a pronominal object in the verb:

(70)   *zə́-dá-ná-ghá-zá*   *tá*   *ɗàfá*
     eat-ALL-DEM-PVG-eat   OBJ   food
     'in addition [to the food known or mentioned previously in discourse], he ate mush'

(71)   **zà-dá-ná-ghá-zà*   *tá*   *ɗàfá*
     eat-ALL-DEM-PVG-eat   OBJ   food
     for 'in addition, he ate mush'

When the object in the clause is the primary object, the verb must end in the vowel *a*:

(72)   *zà-dá-zà*   *tá*   *vàzák*
     eat-ALL-eat   OBJ   rooster
     'he ate too much rooster'

(73)   **zə̀-dá-zà*   *tá*   *vàzák*
     eat-ALL-eat   OBJ   rooster
     for 'he ate too much rooster'

The verb has the root form (with the schwa inserted) in the imperfective aspect in pragmatically dependent clauses, e.g. in the dependent apodosis clause *nghə* 'see':

(74) *kà   lá-ghá   vàzák   ndzɗà-vá-tà*
      SEQ   go-D:GO   rooster   spend time-APPL-REF:SUBJ
      vàzák   tà   xvá   tà   nghə-tsə   ná   kà
      rooster   PREP   work   PREP   see-3SG   COMP   SEQ
      sá-ghá   ùvá
      arrive-D:PVG   cat   ˏ
      'Rooster came. After having done some work, he sees Cat com
      ing.'

Sequential clauses:

(75) *kà   wùdə-xən   tá   wùdá*
      SEQ   fight-3PL   OBJ   fight
      'and they were fighting' (a lion and an elephant previously men
      ioned in discourse)

Imperfective in relative clauses:

(76) *xìyá   kùl   xvə-lú   gà   xdí*
      guinea corn   NEG   grow-UH   in   Hdi
      'guinea corn that is not grown in Hdi' (refers to corn grown in the
      dry season)

In the present work we cite verbs in their goal-oriented form, i.e. with the vowel *a*, for two reasons: (1) in comparison with other forms this form occurs in a larger number of slots in the verbal paradigm; and (2) choosing to represent a thematic vowel allows us to represent the underlying tone of the verb in a readable way.

The verbal root with a point of view marker constitutes a verbal stem. Such stems have lexicalized to the point that other markers, including point of view markers, are added to them. A lexicalized stem built on the goal-oriented marker may have the source-oriented marker added, and conversely, a lexicalized stem built on the source-oriented marker can have the goal-oriented marker added.

10. The structure of polysyllabic verbs

A polyconsonantal, polysyllabic verbal root contains a vowel. Given the fact that verb-final vowels carry specific semantic functions, one should examine whether the underlying vowels are also associated with semantic functions. Indeed, the nature of the vowels in polyconsonantal roots and the meanings associated with them indicate that they might have originated as roots followed by thematic vowels that have subsequently became part of the lexical form of the verb.

Polysyllabic verbs may have the same consonantal onsets as monosyllabic verbs, but their first vowel may only be *a, i, u*, or *ə*. We quote the form with the second vowel because it is a tone-bearing unit and the tone may be either high or low: *bádzà* 'spoil', *búkwà* 'to cover, intr.', *dífà* 'hide', *ghbàsá* 'laugh', *mbə́dà* 'count, change the crop on a field every year or every two years'.

The vowel *u* occurs in intransitive or transitive verbs. Some of these verbs code the event from the source orientation, as described above, i.e. the subject: *tsúxà* 'cough' (movement from body), *súdà* 'take clothes off', *ghwálà* 'dry' /ghúálá/, *zlə́mbà* 'fall' (about non-human objects) (ə is variant of *u* before a consonantal cluster), *gùyá* 'meet'. The syntactic evidence for the lexicalized meaning of these verbs as encoding source orientation is provided by the fact that their subjects are the affected arguments without any additional marking:

(77) *ghwálá-p-ghwálá*   *lgùt*
      dry-OUT-dry   cloth
      'the cloth dried'

(78) *ghwálá-p-ghwálá tá   lgùt*
      dry-OUT-dry   OBJ cloth
      'he dried the cloth'

Many verbs with the vowel *i* code movement away or separation: *dífà* 'hide', *tsíhlà* 'husk', *xídà* 'bite', *gìgdá* 'sift', *fìdá* 'plane [wood]'. Some verbs with the vowel *i* that do not share the semantic feature of separation are borrowed: e.g., *vìndá* 'write' is a borrowed from Fula *winda*. The verb *díngà* 'put on the fire' is probably also a borrowing from Fula *ju ingo*. There are, however, verbs with the vowel *i* that do not imply separation and are not borrowings from other languages, e.g. *xìdá* 'play'.

Even if the initial vowel of polysyllabic verbs might once have been a grammatical morpheme with a specific semantic function, in the contemporary language that does not affect the syntactic properties of these

verbs. For this reason we consider the first vowel of polysyllabic verbs to be underlying.

11. Verbal nouns

The categoriality of a form as nominal or verbal is determined on the basis of a syntactic test, specifically, the ability of the form to function as an argument of a clause, and on the basis of a morphological test, whether the form can take possessive suffixes.

There are two types of verbal nouns. One type ends in vowel *u* or *i*. The conditions determining whether the high vowel is front rather than back are not phonological, because some verbs can have both types of nouns, one with a front and the other with a back vowel. For most verbal nouns, substituting the front vowel for the back, or the back vowel for the front, results in nonsense words. The tonal pattern of the verbal noun is the same as that of the verb.

(79)	Verb		Verbal noun	
	kátá	'to help'	*kátú*	'help'
	và	'light a fire'	*vú*	'fire'
	skálá	'dance'	*skálú*	'dance'
	ghálá	'steal'	*ghálú*	'thief', 'theft'
	vàghá	'spend time'	*vàghú*	'time spent'
	pghá	'spread'	*pghú*	'libation'
	wàxá	'cry'	*wàxú*	'cry'
	ďgá	'thresh'	*ďgú*	'threshing'

Polyconsonantal verbs that have initial vowel *i* have the nominal form ending in *i*:

(80)	*vníxá*	'vomit'	*vníxí*	'vomit'
	xíʔídá	'bite'	*xíʔídí*	'bite'
	fiďá	'plane [wood]'	*fiďí*	'planing'

But the verb *xàná* 'sleep' has the verbal noun *xàní*.

Verbal nouns take possessive pronouns with the genitive marker -*á*, which replaces the last vowel of the noun and assumes its tone. The possessors in such constructions are the controlling rather than the affected arguments of the verb:

(81)   *xíʔídí-á-ní*   → [xíʔíd-á-ní]

bite-GEN-3SG
'his biting'

(82) *xíídí-á*   *krì*   → [xíd-á krì]
      bite-GEN   dog
      'a dog's bite'

(83) *fidí-á-ní*   → [fidání]
      plan-GEN-3SG
      'his planing (wood)'

(84) *wàxú-á-d'á*   → [wàx-á-d'á]
      scream-GEN-1SG
      'my scream'

(85) *wàxú-á*   *krì*   → [wàx-á krì]
      scream-GEN dog
      yelp of the dog'

(86) *skálú-á-ní*   → [skálání]
      dance-GEN-3SG
      'his/her dance'

In a verbal noun if the consonant preceding the final vowel *u* is labial, the vowel *u* is labialized when followed by the suffix *-a*:

(87) *vú-á-ní*   → [vwání]
      fire-GEN-3SG
      'his fire'

Some derived nouns have suffix *-à*. This type has quite different syntactic properties from nominal actions. Intransitive verbal nouns may have possessive pronouns added directly to the verb:

(88) *xwáyá*   'to run'   *xwáyá-d'á* 'my run, my race'

Transitive verbs in this class cannot have possessive pronouns added directly to the verb. Instead, nominalization is possible only if the object is included:

With a possessive pronoun:

(89)   bà   *bá   dá
        'to build'   build 1SG

With an object and a pronoun:

(90)   bá   xgá   dá
        build   house   1SG
        'my building of a house'

The object of a transitive verb must be followed by the genitive marker, as shown by the form of objects. Thus, the noun *vlì* 'place' has the final vowel *a* in nominalized form. The explanation is that it is the genitive marker that replaced the final vowel of the noun:

(91)   ǹghá   vlà   dá
        look   place   1SG
        'my looking at'

The possessive pronoun cannot be added to a transitive verb:

(92)   *ǹghá   dá
        look   1SG
        for 'my looking'

12. Conclusions

The verbal root of monosyllabic verbs in Hdi consists of all the consonants and the tone. The verbal stem is formed through the addition of vowel *a*, *u*, or *i*. These vowels carry specific semantic functions. The first vowel in polysyllabic verbs is underlying, although historically it may well have been a grammatical morpheme.

The verbal stem may be simple or reduplicated. The second part of the reduplicated verb has the vowel *a*, unless it is replaced by the onset of the following morpheme beginning with a vowel.

Chapter 6

Argument coding

1. Introduction

The bulk of this chapter deals with the formal means of coding the first and the second arguments of various verbs. We refer to them as the *subject* and the *object* with the understanding that these terms do not imply specific semantic relationships. We also describe how other noun phrases representing adjuncts are added. Only marginally do we touch on the issue of the coding of the semantic roles of arguments. That issue is discussed in Chapter 8.

In Hdi there are three means of differentiation of arguments in a clause: (1) position with respect to the verb; (2) prepositions; and (3) verbal inflection, which includes extensions added to the verb. The latter two means also code semantic relations between arguments and verbs. The actual means employed for coding a specific argument depend on the pragmatic function of the argument (such as topic or focus), the type of clause it occurs in (the basic distinction here is between pragmatically independent and pragmatically dependent, and between matrix and complement clauses). In addition, the coding means employed depend on whether the argument is nominal or pronominal and on the deictic relationship between the place of speech and the place of the event. The interplay of these factors produces a rather complex morphosyntactic system.

In pragmatically neutral clauses, i.e. non-topicalized, non-focus, non-specific interrogative clauses, Hdi is a predicate-initial and verb-initial language. Consequently, only one argument may be marked by position, viz. the one right after the predicate. The remaining arguments must be marked by other means available, viz. prepositions and verbal extensions. If several arguments are present in the clause, there is a hierarchy with respect to which argument may occupy the position after the verb. The unmarked order in a clause is Predicate Subject. The unmarked order of constituents in a simple sentence with a verbal predicate is Verb Subject (*tá* Object) (*tá* Object) (Adjunct).

Although direct and indirect objects as well as adjuncts are marked by prepositions, there is a difference between the two types of categories in

that if the verb is transitive, in the imperfective aspect it must have the object marked by a nominal, pronominal, or potential object marker. The adjuncts are defined as non-obligatory components of a clause. The categorial status of the receiver of an object depends very much on the type of verb. With some verbs it is an obligatory constituent, an argument, and with others it is an adjunct.

2. Types of arguments

Arguments of verbal or non-verbal predicates may be nominal or pronominal. Contrary to some theoretical claims (cf. DuBois 1985), clauses with two nominal arguments do occur in natural discourse in Hdi, as in the following examples:

(1)   kà   ks-ú-tá   ùvá   tá   vàzák
       SEQ   touch-SO-REF   cat   OBJ   rooster
       'And Cat devoured Rooster.' (from "Work for Squirrel's In-laws")

(2)   kà   zl-í-n-tá   tsá   mghám   yá
       SEQ   chase-AWAY-3-REF   DEF   chief   DEM
       [tá zón á-ní]   tá   tsá   màrkw-á-tàn   yá
       OBJ son-GEN 3SG [error] OBJ   DEF   wife-GEN-3PL   DEM
       'The chief chased away his wife.'

Even when an intransitive verb serves to introduce a nominal argument, the next clause may contain the same argument represented by the same noun. The following example, from a running text, contains several clauses. The first clause uses an intransitive verb to introduce the nominal argument, its subject. The second clause contains the same nominal argument, also as subject, in addition to another argument, which is locative. Only in the third clause is the nominal argument vàzák 'rooster' replaced by a pronominal marker:

(3)   kà   lá-ghá   vàzák   ndzɗà-vá-tà   vàzák
       SEQ   go-D:GO   rooster remain-APPL-REF:SUBJ   rooster
       tà   xvá   tà   nghə́-tsí   ná   kà   sá-ghá
       PREP   work   IMPF see-3SG   COMP   SEQ   arrive-D:GO
       ùvá
       cat
       'Rooster came. Having done some work, he sees Cat coming.'

Oral texts, a sample of which is given in Chapter 27, amply illustrate the occurrence in narratives of two full nouns in a single clause. More specifically, see sentences 7, 10, 11, 17, 27, 29, and 33 in the "Story of Dog and Hyena", sentences 3, 7, and 14 in the "Beer of Adulthood", and sentences 1, 23, 30, 36, 44, 51, 67, and 70 in the text "Work for Squirrel's In-laws".

3. Defining the terms

We define "subject" as the unmarked argument of the verb. This argument directly follows the verb. The existence of the category *subject*, as opposed to some other category, is argued on the basis of the following characteristics: Subjects are never marked by the preposition *tá*. There exists a separate morphological category of subject pronouns that do not code any other function. Subjects in the perfective aspect are relativized in a manner different from the relativization of all other arguments. Only subjects may and must occur after the complementizer *ká* and after some verbs. Subjects may occur in clause-final position, after other arguments, without any preposition. No other argument has this property.

"Object" is the second argument of the verb. If there is a subject between the verb and the object, the object is marked by the preposition *tá*.

4. Coding of the subject

The unmarked argument of a transitive verb has the same formal properties as the single argument of an intransitive verb. The subject occurs after the verb, unless it is fronted for the coding of various information-related functions, such as topic or focus. In pragmatically independent clauses, the word preceding the subject has high tone, regardless of the category of the word and regardless of its inherent tone. The subject can be coded by three types of morphemes: a full noun phrase, an independent pronoun, and a pronominal clitic.

4.1. A full noun phrase as subject

The nominal subject follows the verb in all tenses and aspects except in the imperfective in pragmatically marked clauses. The nominal subject is part of the same syntactic phrase as the verb, as evidenced by the high tone on the last syllable of the verb, regardless of the inherent tone of the

verb. The verbs *sá* 'come' and *zá* 'eat' are inherently high and keep the high tone before the subject:

(4)   *sá-sá*   *mbítsá*
       arrive-arrive   Mbitsa
       'Mbitsa came down'

(5)   *z-ú-zá*   *mbítsá*
       eat-SO-eat   Mbitsa
       'Mbitsa ate up'

The verb *sà* 'drink' is inherently low, but it also has high tone before the subject:

(6)   *s-ù-sá*   *mbítsá*
       drink-SO-drink   Mbitsa
       'Mbitsa drank up'

Consider the verb *xàn-* 'sleep' with the suffix -*ay*. When the verb precedes the subject, it has high tone:

(7)   *tà*   *xàn-áy*   *tsá*   *mìndú*   *yá*   *tá*   *xàní*   *dágálá*
       IMPF   sleep-PO   DEF   man   DEM   OBJ   sleep   large
       'that man sleeps a lot'

When the verb is followed by an adjunct belonging to a different phrase, the suffix has low tone:

(8)   *tsá*   *mìndú*   *yá*   *tá*   *xàn-ày*   *xàd*   *ná*
       DEF   man   DEM   COM   sleep-PO   here   DEM
       'it is that man that spent the night here'

If the verb ends in a referential marker, the referential marker has high tone before the subject:

(9)   *kà*   *ksá-f-tá*   *dángwà*   *t-î*
       SEQ   catch-UP-REF   illness   OBJ-1SG
       'and an illness caught me'

The referential marker *ta* has low tone in phrase-final position. Compare the following sentences: In the first the verb is followed by the subject and consequently the referential marker ends in high tone. In the sec-

ond, the verb is followed by a prepositional phrase, with which it does not form a phrase, and consequently the referential marker has low tone:

(10)   *kà*   *nzà-tá*   *ì*   *pákáwá ghúvì*   *ndá*   *krì*
       SEQ   stay-REF   ASSC.PL   hyena   ASSC   dog
       '[At one time] Hyena and Dog lived together.'
Cf.:
(11)   *. . . ì*   *pákáwá ghúvì*   *kà*   *nzà-tà*   *ndá*   *krì*
       . . . ASSC.PL   hyena   SEQ   stay-REF   ASSC   dog
       '. . . Hyena and Dog lived together.'

4.2. Independent subject pronouns

The independent pronouns listed in Table 9 (Chapter 4) can serve as the argument of a clause or as the object of a preposition. Independent subject pronouns are used in pragmatically dependent clauses, i.e. clauses that require some other clause for proper interpretation, e.g. negative clauses. Independent pronouns as subjects have the same syntactic properties as nominal subjects, viz., they follow the predicate, and the verb ends in a high tone before the subject pronoun:

(12)   *vàghà-vàghá*   *kághá*   *rà*
       pass well day-pass well day   2SG   Q
       'did you have a nice day?' (an afternoon or evening greeting)

(13)   *. . . xwáyá-ghú*   *xáxòŋ*   *tà*   *ghùrúm*   *má*
       . . . run-D:SO   3PL   PREP   hole   COND
       . . . nglá-ghú   *xáxòŋ*   *t-ùbú*   *má,*
       . . . climb-D:SO   3PL   PREP-granary   COND
       '. . if they ran into a hole, . . . if they climbed into a granary'

4.3. Pronominal subject clitics

The pronominal subject system distinguishes four persons: first, second, third, and the unspecified human subject *lú*, glossed as "UH". Within the first person there is a distinction between the first-person dual inclusive (you and I), first-person plural inclusive (you, I, and other people with us), and first-person plural exclusive (I and other people, excluding you). In the second and third persons there is a distinction only between singular and plural. There are different subject markers for the third-

person singular depending on the pragmatic type of clause and aspect. Table 10 presents subject markers in both pragmatically dependent and pragmatically independent clauses. It does not include, however, subjects coded by possessive pronouns.

Table 10. Subject pronoun clitics

Person	Singular	Dual	Plural
First	*í, íyù,*	*úí* (INCL)	*mú* (INCL)
			ŋní (EXCL)
Second	*ká*		*kúní*
Third	*Ø, a, tsí*		*xǝn*
Unspecified human			*lú*

The clitics can follow the verb stem, the verbal extensions, or the reduplicated form of the verb. They can also follow verbal complements or even adjuncts. Phonologically the clitic is connected with the preceding word in the following way: The vocalic clitics, such as first-person singular and first-person dual, replace the vowel *a* of the verb and form syllables with the last segment of the verb. Consonant-initial pronouns follow the verb without any pause, but the verb ends in a high tone preceding the pronoun. The high tone on the verb is the indicator that the element that follows it belongs to the same phrase. Because of these factors, subject clitics are represented as suffixes when they occur after verbs; however, they belong to the syntactic category of clitics rather than the morphological category of verbal suffixes.

The evidence for pronominal subjects being clitics is provided by the fact that they follow any predicate, be it a verb, a noun, or a locative noun phrase:

(14) sí   tà   lúm-íyù
      PAST   PREP   market-1SG
      'I was at the market recently'

(15) sí   tà   lúmá-ká   rà
      PAST   PREP   market-2SG   Q
      'were you at the market recently?'

The third-person singular subject is unmarked in pragmatically independent clauses:

(16) sí   tà   lúmá
      PAST   PREP   market
      'he was at the market'

(17) sí   tà   kdíx
PAST PREP donkey
'he was on a donkey'

Cf. the third person plural subject:

(18) sí   tà   kdíx-xən
PAST PREP donkey-3PL
'they were on a donkey'

Any grammatical morpheme that precedes the subject clitic must end in a high tone. Consider the locative adverb *mìdà* 'inside', whose tonal structure is shown in its use with the third-person singular subject in a pragmatically independent clause, i.e. with an unmarked subject:

(19) sí   mìdà
PAST inside
'he was inside'

The last tone of the noun becomes high before a subject pronoun:

(20) sí   mìdá-ká
PAST inside-2SG
'you were inside'

If the subject pronoun is vocalic, as is the case with the first-person singular marker *i*, the vowel of the subject assumes the last tone of the noun, which has become high:

(21) sí   mìd-í
PAST inside-1SG
'I was inside'

(22) sí   mìdú-ú
PAST inside-1DU
'the two of us were inside'

When subject pronouns are added directly to the verb in the perfective aspect, the verb ends in the vowel *a* and a high tone regardless of the underlying tone of the verb. Compare the tonal pattern of pronouns following the verbs *sà* 'drink' and *zá* 'eat'. The tone of the first singular pronoun

is identical with the tone of the preceding syllable because *i* replaces the preceding vowel and assumes its tone:

(23) 1SG   *sù-s-í*   *zú-z-í*
      2SG   *sùsá-ká*   *zú-zá-ká*
      3SG   *sùsà*   *zúzà*
      1DU.INCL   *sùsú-ú*   *zú-zú-ú*
      1PL.INCL   *sùsá-mú*   *zú-zá-mú*
      1PL.EXCL   *sù-sáŋní*   *zá-zá-ŋní*
      2PL   *sùsá-kúní*   *zú-zá-kúní*
      3PL   *sùsá-xən*   *zú-zá-xən*

The subject clitic may be added to the object of the clause, as is optionally the case in the imperfective future:

(24) *dzà'á   mná   púrkútú ndzúm-í*
      FUT   tell   story-1SG
      'I am going to tell a story . . .'

(25) *dzà'á   mná   púrkútú ndzúm-ká*
      FUT   tell   story-2SG
      'you are going to tell a story . . .'

The subject clitic, however, does not behave like a morphological suffix, as shown by the fact that it is added, not to the underlying form of the lexical item, but rather to its phonetic realization. Thus when the first-person singular pronoun *í* follows a word ending in a nasal consonant, it does not form a syllable with the nasal consonant but is a separate syllable instead:

(26) *dzà'á   d'áwá   ntfáŋ   í*   →   [dzà.á.d'á.wá ntfáŋ.í]
      FUT   ask   glue   1SG
      'I am going to ask for glue'

4.3.1. The first-person singular subject pronoun

The two forms of the first-person singular subject pronoun *í* and *íyù* are dialectal variants. The form *íyù* is used in the area called Ndrùk, and the form *í* is used in other areas. Speakers from the two areas are very consistent with respect to this usage. In the present work we represent the first-person singular subject as it was recorded from various speakers.

(27)   *vrà-k-vr-í*   *dzághà*   *kà*   *mbàz-í*
     return-INN-return-1SG home   SEQ   wash-1SG
     tá   *mbàzá*
     OBJ   wash
     'I returned home and washed'

(28)   *vrà-k-vr-íyù*   *dzághà*   *kà*   *mbàz-íyù* *tá*   *mbàzá*
     return-INN-return-1SG home   SEQ   wash-1SG OBJ wash
     'I returned home and washed' (home is the place of speech)

4.3.2. The third-person singular subject pronoun

The third-person singular marker *á* occurs only following the complementizer *ká*:

(29)   *gá*   *kdîx-á-dá*   *nà ká-'á*   *ndá*   *tsá*
     where donkey-GEN-1SG Q COMP-3SG ASSC DEF
     mndù-xà *yá*
     man-PL   DEM
     ' "Where is my donkey?" he asked those people.'

The third-person subject pronoun is unmarked in all aspects in pragmatically independent clauses:

(30)   *ndàná-p-xà*   *gúlí*   *tà*   *ghə̀ŋgà*   *ghə́ŋg-à*
     think-OUT-DOWN also PREP about   head-GEN
     xàdîk *kùl*   *xàdú*   *kdà-và-k-tà-ní*
     world without lack   finish-APPL-INN-REF-3SG
     'He also thought about the infinite world' (written source)

(31)   *kà*   *vrá-ghù*   *tà*   *dà*   *tsá*   *mták*   *yá*
     SEQ   return-D:SO PREP PREP DEF bush   DEM
     'and he returned to the bush' (written source)

The pronoun *tsí*, realized with an alveolar or a palatal affricate [*cì*], occurs in several types of pragmatically dependent clauses. Here is an example from a conditional protasis clause:

(32)   *kà*   *má*   *tà*   *vrá-kù-tsí*   *ká-'á*   *wà,*
     SEQ COND IMPF return-ABS-3SG COMP-SG NEG
     ' "if it were to be able to return," he said' (written source)

Here is an example from a sequential clause:

(33)   kà   zl-í-n-tá-tsí   kà   xwáyá-úgh-tà
        SEQ   leave-AWAY-3-REF-3SG   SEQ   run-SO-REF
        'he left it and escaped'

4.3.3. The unspecified human subject pronoun

The unspecified human subject pronoun is lú. Since l is transparent with respect to vowel assimilation, the preceding vowels are most often replaced by u:

(34)   z-ú-zá/ú-lú   skwá-skú-lú
        eat-SO-eat-UH   buy-buy-UH
        'one ate already'   'one bought'

The function of lú is to code an unknown human plural subject. The evidence for this function is provided by the fact that verbs denoting animal but not human activities are ungrammatical with the subject lú::

(35)   *tà   xùfá-lú   tá   xàsú'ù rà
        IMPF   eat through-UH   OBJ   wood   Q
        for 'can one eat through the wood?'

(36)   *ghwághwà-ghwághwá-lú
        bark-bark-UH
        for 'they/one barked'
Cf.:
(37)   ghwághwà-ghwághwá   krì
        bark-bark   dog
        'a dog barked'

With verbs that can have human and non-human subjects, the form with lú codes only human subjects:

(38)   xúxr-áp-xúxrá   mbgà
        gnaw-OUT-gnaw   mouse
        'a mouse gnawed a hole in the wood'

(39)   xúxrá-p-xúxr-ú-lú
        gnaw-OUT-gnaw-EP-UH
        'people drilled a hole in the wood'

(40)   xúmdz-áp-xúmdzá-lú
        scrape from inside-OUT-scrape from inside-UH
        'they scraped the [soft] inside of something'

Elicited data built on sentences actually recorded in discourse show that
the unspecified human subject may include the speaker:

(41)   kà   xlyá-f-tú-lú   kà   lá-ghú-lú
        SEQ   leave-UP-REF-UH   SEQ   go-SO-UH
        'and then one got up and went' (natural discourse fragment)

        kà   bùgà   tsá   yá   klí-í   kà   sá-ghà
        SEQ   reason DEF   DEM   take-1SG   SEQ   arrive-D:PVG
        'and that is why I came here' (elicited follow-up on the previous
        example)

But natural texts do not support inclusion of the first person within the
group represented by lú. Every use of lú in natural texts involves unspec-
ified humans, with the speaker not being part of the group. We translate
such subjects by the the third person plural 'they' rather than by the form
'one' which in English may include the speaker:

(42)   tà   skálú-lú   tá   skálú   gírvídìk
        IMPF   dance-UH   OBJ   dance   night
        'they danced all night'

The unspecified human form differs from the third-person plural sub-
ject in that the latter is used when the identity of the referents is known:

(43)   kà   wùdə́-xə̀n   tá   wùdá
        SEQ   fight-3PL   OBJ   fight
        'and they were fighting' (a lion and an elephant previously men
        tioned)

One cannot replace xə̀n with lú in the above clause.

5. Coding of the object

The term *object* in the present work refers to the second argument of the verb. This term does not designate any specific semantic relationship with the verb. The semantic relationship between the verb and arguments is marked by inflectional changes on the verb.

There are several types of objects that differ in their syntactic coding: full noun phrases; independent and affixed pronominal objects; reflexive objects; and cognate objects. The pragmatic status of the clause, the aspect , the inherent properties of verbs, and the person and number of the object are the determining factors with respect to whether and how an object is marked. With some verbs the addition of an object requires inflectional changes in the verb. In what follows we describe formal means for the coding of objects, how those means are used with different types of verbs and in different aspects, and the coding of the semantic functions of objects.

5.1. The absence of an overt object

The coding of the third-person singular object depends on the following factors: the information status of the object; the aspect of the clause; whether the clause is pragmatically dependent or independent; and the inherent characteristics of the verb.

The third-person singular object pronoun is unmarked in the perfective aspect, whether coded by reduplication or by the referential marker *ta* (cf. Chapter 12, sections 2 and 3):

(44)   *ngá*   *lá-bà*   *m̀ndú-xà*   *ksà-gá-ghà-tà*
         NORM   go-OUT   man-PL   touch-INN-D:PVG-REF:SUBJ
         'People should go out, catch him, and bring him back'.

(45)   *kà*   *ghùnà-dá-m-tá-tsí*
         SEQ   send-ALL-IN-REF-3SG
         'and he sent him inside'

(46) *lá-mà zíngá dà   tùghwázàk   kà*
go-IN Zinga PREP hibiscus   SEQ
hlà-ná-ghá-tá-tsí   *tá*   *pákáwá ghúvì kà*
find-DEM-D:PVG-REF-3SG OBJ   hyena   SEQ
ks-ú-tá-tsí
touch-SO-REF-3SG
'When Zinga entered the hibiscus, he found Hyena and devoured him.'

The third person pronominal object does not have to be marked in the stative aspect:

(47) *ndá   sná   fàlák*
STAT know Falak
'Falak knows'

5.2. Object coding through the preposition tá

The independent object, whether nominal or pronominal, may be coded by one of several means, depending on whether there is a subject following the verb. If there is subject after the verb, the object is coded by the preposition *tá* glossed as "OBJ":

(48) *ngàtsá-f-ngàts-í*   *tá*   *lfíd-á*   *lgùt*
have-UP-have-1SG   OBJ   new-GEN   cloth
'I have new clothes'

(49) *tsghà-dá-f   xáxən tá   sánì*
put up-ALL-UP 3PL   OBJ   one
'They sent up one [bag]'

If the object consists of a conjoined noun phrase, there is only one object marker, and it precedes the first component of the noun phrase:

(50) *skwá-skw-í   tá   plìs   ndá   má   nà   hlà*
buy-buy-1SG OBJ   horse ASSC   female DEM   cow
'I bought a horse and a cow'

(51) *dzáwá-dzáwá   tá   plìs-xà   ndá   hlà-xà*
buy.PL-buy.PL   OBJ   horse-PL   ASSC   cow-PL
'he bought horses and cattle'

The object-marking preposition *tá* differs from the locative preposition *tà* in tone:

(52)   ndá   ṅgh-í   tá   ptà
        STAT   see-1SG   OBJ   mat
        'I saw the mat'
Cf.:
(53)   ndá   ṅgh-í   tà   ptà
        STAT   see-1SG   PREP   mat
        'I saw it on the mat'

The similarity and difference between the locative preposition *tà* and the object-marking prepositon *tá* appear not to be accidental. The low-high tone distinction is exploited in several other morphemes, e.g. the locative preposition *dá* occurring before inherently locative nouns and the locative preposition *dà* occurring before all other nouns; the sequential marker *kà* and the complementizer *ká*; the referential marker *tá* and the subjunctive-referential marker *tà*. High tone on verbs indicates directionality toward the following argument or extension, including the coding of the benefactive/dative function. High tone is also a marker of phrase-internal position. It is possible that the object marker *tá* is a composite structure consisting of *ta* plus high tone.

5.3. Object coding in clauses with the referential marker

Recall that the object marker is *tá*. When there is a subject between the verb with the referential marker and the object, both the referential marker and the object are marked by the morpheme *tá*:

(54)   kà   xlà-f-t-íí   tá   zwàn-à
        SEQ   gather-UP-REF-1SG   OBJ   child:PL-GEN
        pákáwá ghúvì
        hyena
        'and I gathered the children of Hyena'

If the object were to follow the verb directly, the two markers *tá* would be in sequence. Such sequences, however, do not occur, and the referential suffix and the object marker are reduced to one form, i.e., only one *tá* occurs instead of the expected sequence *-tá tá*:

(55)   *mbàɗ   ká   pákáwá ghúvì kà   xvá-tá   xvá*
         then   COMP hyena   SEQ   farm-REF farm
         'Hyena had already farmed.'

(56)   *tántán mbàɗ ká   kà   xgà-n-tá   vàzák*
         first   then   COMP-3SG SEQ   call-3-REF   rooster
         'First he invited Rooster.'

(57)   *mbàɗ ká-'á   kà   xlá-f-tá   zwàn-à*
         then   COMP-3SG   SEQ   gather-UP-REF   child:PL-GEN
         pákáwá ghúvì
         hyena
         'Then he gathered the children of Hyena'
Cf.:
(58)   **mbàɗ*   ká-'á   kà   xlá-f-tá   tá*
         then   COMP-3SG   SEQ   gather-UP-REF   OBJ
         zwàn-à   pákáwá ghúvì
         child:PL-GEN   hyena
         for 'Then he gathered the children of Hyena'

Since the referential and object markers are identical in all respects, one could claim that *tá* is just an object marker and that there is no referential marker *tá*. An argument against this interpretation is that the marker *tá* occurs as the referential marker with intransitive verbs with and without extensions:

(59)   *kà   dɗá-tá   xìyá*
         SEQ   fall-REF   Corn
         'and then corn fell down'

(60)   *kà   dɗà-gá-tá-tsí*
         SEQ   fall-INN-REF-3SG
         'and then he fell down'

It is very likely that the origin of the constraint on two occurrences of *tá* in a sequence lies in their being perceived as representing the same grammatical morpheme or at least that the two markers belong to the same grammaticalization chain. The absence of any pause between the verb and the marker *tá* indicates that the marker is attached to the preceding verb. We represent the marker as "REF" (referential) rather than "OBJ" (object) because the suffix *tá* also occurs with intransitive verbs. It is, nevertheless, very possible that the referential marker derives from the object

marker. Such a hypothesis would also account for why the prototypically intransitive verbs *sá* 'come' and *lá* 'go' do not have the perfective marked by *tá*. When an intransitive verb like *xwáyá* 'run' occurs with the referential marker *tá*, it means that a very specific distance has been run:

(61)   *kà*   *xwáyà-tà*
        SEQ   run-REF
        'and he ran it' (*tà* has low tone because it is in phrase-final position)

Without the marker *tá* the verb in a sequential clause means inception but not completion of an action:

(62)   *kà*   *xwáyà*
        SEQ   run
        'and he started to run'

5.4. Object coding through position after the verb

In the dependent imperfective aspect, the object directly follows the verb. The verb must end in the vowel *-a*, and the tone must be high, regardless of the inherent tone of the verb. In the same aspect, when the subject follows the verb, the verb ends in schwa rather than *a* (as described in the Chapter 12, section 5). Consider the verbs *sà* 'drink' and *snà* 'listen'. When these verbs are followed by the object in pragmatically dependent clauses, they have high tone, as they would if they were followed by the subject:

(63)   *tà*   *s-á*   *imí*   →   [símí]
        IMPF   drink-GEN   water
        'while he was drinking water' (The penultimate tone is actually higher than the last tone, possibly the effect of the low tone on the first syllable of *imí*.)

(64)   *tà*   *sná*   *gwàdá*
        IMPF   listen-GEN   word
        'while he listened' or 'while he obeyed'

High-tone verbs keep their tone high:

(65)   tà   z-á   ɗàfá
       IMPF   eat-GEN   food
       'while he was eating'

6. Pronominal object affixes

6.1. The coding means

Pronominal objects are suffixed to the simple form of the verb and infixed into the reduplicated form. There is a distinction between direct and indirect object pronouns. Direct object affixes are represented in Table 11. No more than one object pronoun can be added to the verb, which means that one cannot have a sequence of direct and dative pronominal affixes in the verb. The verb before the object pronouns ends in the stem vowel, either *a* or *i*. The stem cannot have the vowel *u*, which codes source orientation.

Table 11. Direct object affixes

Person	Singular	Dual	Plural
First	í, ɗ, í-xà	úí (INCL)	mù (INCL)
			ŋní (EXCL)
Second	ghá		ghúní
Third	Ø, n		xǝ̀n

For the first- and second-person singular and plural, there is only one set of pronouns that serves either as direct object or as dative/benefactive. For the third person the direct object is unmarked unless it is referential. The third-person indirect object is overtly marked. The major coding means to distinguish between the two functions of object pronouns is through tonal structure. Pronominal direct objects for all verbs have high tone. The verb before a pronominal direct object has low tone regardless of the underlying tone of the verb. The low tone is a means of coding the natural, inherent, unmarked object for a given verb. For most verbs, this is the direct object. For some verbs, however, the direct object is dative. Consider the verb *ɓlá* 'break'. The evidence that it has inherently high tone is provided by its quotation form *ɓl-áy*, and by the perfective form without any object, *ɓlá-ɓlà* 'he broke it'. Before pronominal direct objects it has low tone:

(66)   *ɓlà-ghá-p-ɓlà*
       break-2SG-OUT-break
       'he broke you'

(67)   *ɓl-ì-dí-p-ɓlà*
       break-AWAY-1SG-OUT-break
       'he broke me'

(68)   *ɓlà-ná-p-ɓlà*
       break-DEM-OUT-break
       'he broke him'

(69)   *ɓlà-ŋná-p-ɓlà*
       break-1PL.EXCL-OUT-break
       'he broke us'

(70)   *ɓlà-ghúná-p-ɓlà*
       break-2PL-OUT-break
       'he broke you (PL)'

The third-person plural pronominal object is coded through the form *ná* affixed to the verb and the third-person plural pronoun *xən* preceded by the object-marking preposition *tá*:

(71)   *ɓlà-ná-p-ɓlà*   *tá*   *xən*
       break-DEM-OUT-break   OBJ   3PL
       'he broke them'

If the verb inherently occurs with semantically dative object pronouns, such pronouns always have high tone. The verb also has high tone before such pronouns:

(72)   *skw-íxà-skwá tá*   *skw-à*   *z-áy*
       buy-1SG-buy OBJ   thing-GEN   eat-PO
       'she bought me something to eat'

(73)   *skwá-ghá-skwá*   *tá*   *skw-à*   *z-áy*
       buy-2SG-buy   OBJ   thing-GEN   eat-PO
       'she bought you something to eat'

(74)   *skwá-ná-skwá*   *tá*   *skw-à*   *z-áy*
       buy-DEM-buy   OBJ   thing-GEN   eat-PO
       'she bought him something to eat'

In order to code the pronoun as a direct object with such verbs, it is necessary to use the construction with the preposition *tá* followed by the independent pronoun:

(75) *skwá-skwà* *tá* *kághá*
     buy-buy OBJ 2SG
     'she bought you'

(76) *skwá-skwà* *t-íí*
     buy-buy OBJ-1SG
     'she bought me'

The third-person singular object is unmarked:

(77) *skwá-skwà*
     buy-buy
     'she bought it/him'

The problem that needs to be resolved is the functional distinction between various pronominal affixes for the same person and the function of the independent object pronouns.

6.2. First-person singular object affixes

The first-person singular object affixes are *i*, *i-xà*, and *ɗa*. The form *ɗa* is a cognate of the first-person possessive marker *ɗá*.

The pronoun *i* replaces the vowel of the preceding verb and assumes its grammatical tone, i.e. the tone that the verb has before the direct object:

(78) *ks-ì-ksà*
     touch-1SG-touch
     'he touched me' or 'he wounded me' (*ksá* 'catch him/it!' has underlying high tone)

(79) *kzl-ì-kzlà*
     wait-1SG-wait
     'he waited for me' (*kzlà* has underlying low tone)

The form *ixà* is equivalent to the form *i*. The form *ixa* occurs optionally when there are no other extensions in the verb:

(80)   *kzl-ìxà-kzlà*
        wait-1SG-wait
        'he waited for me'

(81)   *ks-ìxà-ksà*
        touch-1SG-touch
        'he wounded me', 'he touched me'

The form *ɗ* is used if the verb has the stem-formative movement-away marker *í* or the source-oriented marker *ú*:

(82)   *hl-ì-ɗ-á-ghá-hlà*   [hl-ì-ɗáa-hlà]
        fall-AWAY-1SG-PVG-D:PVG-fall
        'he found me' (The *hlà* 'fall' is intransitive, and the marker *i* has a transitivizing function here.)

Without extensions the form *ɗá* cannot be used:

(83)   **ksà-ɗá-ksà*
        touch-touch
        for 'he wounded me', 'he touched me'

(84)   **kzlà-ɗá-kzlà*
        wait-1SG-DOWN-wait
        for 'he waited for me'

(85)   *mántsá*   *yá*   *ká-xən*   *mb-ì-ɗí-f-tà*
        like that   DEM   COMP-3PL   cure-AWAY-1SG-UP-REF
        'That is how they cured me'.

The form *iɗ-* when followed by the distal extension *gh* must have the vowel *a*:

(86)   *kl-í-gí-ɗá-ghà-klá*   *tá*   *sígà*   *tə̀ntə̀ngá*
        take-EP-INN-AWAY-1SG-D:PVG-take   OBJ   pot   hard
        'bring me a hard pot'

(87)   *ks-ú-ɗ-tà*   *á*   *mbítsá*   *wà*
        touch-SO-1SG-REF   NEG   Mbitsa   NEG
        'Mbitsa will not hit me'

(88) ks-í-ɗ-tà   á   mbítsá   wà
      touch-AWAY-1SG-REF NEG   Mbitsa   NEG
      'Mbitsa will not catch me and throw me out'

To avoid a disallowed consonant cluster or syllabic structure, the pronoun *iɗ* will be followed by an epenthetic vowel. The epenthetic vowel is identical with the vowel preceding *ɗ*. The tone on the epenthetic vowel is determined by the syntactic environement. If the epenthetic vowel precedes the inward-movement extension *g* [k] or third-person definite object *n* the tone on the vowel is low. For example, four-consonant clusters such as *ɗkks* or *ɗnks* are not allowed, and syllabification rules require an epenthetic vowel to be inserted after the first consonant, creating two syllables: *ɗVC* and CCV:

(89) ks-í-ɗî-k-ksá
      touch-AWAY-1SG-INN-touch
      'he caught and brought something for me'

(90) ks-í-ɗî-n-ksá
      touch-AWAY-1SG-3-touch
      'he touched it for me'

Evidence that form *iɗ* is combined with the movement-away extension *í* is provided by syntactic and semantic facts: Syntactically, pronouns other than the first person can be combined with *í*. Semantically, the presence of *í* adds meaning that is not present in the inherent meaning of the verb and is not linked with the first-person singular pronoun:

(91) ks-í-gh-tà   á   mbítsá   wà
      hit-AWAY-2SG-REF   NEG   Mbitsa   NEG
      'Mbitsa will not catch you and throw you out'

(92) ks-í-n-tà   á   mbítsá   wà
      hit-AWAY-3-REF   NEG   Mbitsa   NEG
      'Mbitsa will not catch him and throw him out'

Evidence that the use of extensions requires the use of the form *ɗa* is provided by the distribution of these forms. If there is an extension, the form *ixa* cannot be used, and the form *ɗá* must be used for the first singular. If there is no extension, the form *ɗá* cannot be used, and instead the form *i* or *ixa* must be used:

(93) *pákáw*   *tá*   *ks-í-d'á-ghá-tà*
      leopard   COM   touch-AWAY-1SG-D:PVG-REF
      'a leopard surprised me'

(94) *pákáw*   *tá*   *ks-ìxà-tà*
      leopard   COM   touch-1SG-REF
      'a leopard wounded me'

The movement-away extension codes the momentary presence of an object in a certain place:

(95) *ngh-í-d'-nghá*   *tà*   *lúumá*
      see-AWAY-1SG-see   PREP   go
      'he saw me pass by at the market'

(96) *ngh-ìxà-nghà*   *tà*   *lúmá*
      see-1SG-see   PREP   go
      'he saw me at the market'

(97) *kd'-í-d'-kd'à*
      finish-AWAY-1SG-finish
      'he finished me' (he made me tired)

(98) *kd'-ìxà-kd'à*
      finish-1SG-finish
      'he finished me completely' (he made me tired)

(99) *hl-ì-d'á-ghá-hlà*
      fell-AWAY-1SG-D:PVG-fell
      'he found me'

When the verb *hlà* takes the object marker *íxà*, it means "make fall":

(100) *hl-ìxà-hlà*
       fall-1SG-fall
       'he made me fall'

The form *xà* is identical with the extension *xà* glossed as "DOWN", with the extension coding repetition of the action, and with the nominal plural marker *xà*:

(101) *lá-xà-ɗá   dá xdí   sàwárà   tà*
go-DOWN-1SG to Hdi   jaundice (Ful.)   IMPF
kùzl-íxà-tà   k-í   ndá   gólgì-ŋní
ache-1SG-REF COMP-1SG ASSC   family -1PL
'after I went to Hdi, I told my family that I was suffering from jaundice' (lit. 'jaundice aches me')

(102) *sìd-á-ní   tà   dz-ìxà-tà*
meanness-GEN-3SG   IMPF   kill-1SG-REF
'his meanness kills me'

(103) *bàl-ìxà-bàlà*
wound-1SG-wound
'he wounded me' (neither *ì* alone nor *ɗí* alone can be used)

(104) **bàl-ɗá-bàlà*
wound-1SG-wound
for 'he wounded me'

(105) *kɗá   mántsá   kà   ksá-tá-ŋní   tá   hlə́ná*
last year   then   SEQ   work-REF-1PL.EXCL OBJ   work
xàdə̀   ná   kát-ìxà-kátà   ndá   kóbò   déydéy
place   DEM   help-1SG-help ASSC   money   sufficiently
'Last year, we worked here, and that helped me with money suf ficiently' (*ìxà* cannot be replaced by *ɗ*, but can be replaced by *ì*)

6.3. Pronouns and the order of extensions

The object marker *i* always occurs after the verb and before verbal extensions:

(106) *tsá   mìndú   tá   kl-ì-g-tà   yá*
DEM   man   COM   take-1SG-INN-REF DEM
'the man who brought me'

(107) *pgh-ì-dí-p-pghà*
accompany-1SG-ALL-OUT-accompany
'he accompanied me there'

If the pronoun *iɗ* occurs with one extension only. This extension follows the pronoun:

(108) tsá   mìndú   tá   kl-í-dî-g-tà   yá
       DEM   man   COM   take-AWAY-1SG-INN-REF   DEM
       'the man who brought me'

(109) tágh-í-dî-f-tághá   tá   xídá-kú   ngá   mbàdá
       learn-AWAY-1SG-UP-learn   OBJ   advice-ABS   FOR   walk
       'he advised me to walk'

(110) dg-ì-dî-p-dəgà
       pound-AWAY-1SG-OUT-pound
       'divide [it] for me'

If the pronoun *id* occurs with two extensions, then one extension, either
allative *dá* or inner space *g*, occurs before the pronoun *d*, and other ex-
tension(s) follow it:

(111) tsá   mìndú   tá   kl-ì-gí-dá-ghà-tà   yá
       DEM   man   COM   take-EP-INN-AWAY-1SG-D:PVG-REF   DEM
       'the man who brought me'

(112) pgh-ì-d-í-dî-p-pghà
       accompany-EP-ALL-AWAY-1SG-OUT-accompany
       'he accompanied me there'

6.4. The third-person plural object

The third-person plural object is coded by the pronoun *xən*. In perfective
aspect the pronoun is preceded by the object-marking preposition *tá*. The
inherently intransitive verb must have the suffix *ná*:

(113) kà   gàvà-dá-ná-p-tá-tsí   tá   xən
       SEQ   move-ALL-DEM-OUT-REF-3SG   OBJ   3PL
       'and he pushed them'

       hlà-ná-ghá-hl-íyù   tá   xən
       find-DEM-D:PVG-find-1SG   OBJ   3PL
       'I found them'

       dgà-ná-dgà   tá   xən
       divide-DEM-divide   OBJ   3PL
       'he divided them'

If the verb is transitive, it does not have the third person singular suffix *ná*:

(114) *yá-yà-yá-yà*   *tá*   *xən*
       give birth:PL-give birth:PL   OBJ   3PL
       'she gave birth to them'

In the dependent imperfective aspect, the plural object marker is suffixed to verb:

(115) *nə*   *tà*   *zá-xən*   *(nà)*
       what   IMPF   eat-3PL   Q
       'what eats them?' (What is their predator?)

In the comment-on-focus clause with the third-person plural object pronoun, the verb does not have the form *ná* affixed:

(116) *pákáw*   *tá*   *kásá-tá*   *xən*
       leopard   COM   touch:PL-REF   3PL
       'a leopard caught them'

6.5. Unspecified human object

The unspecified human subject *lú* does not have pronominal counterparts in the object (and possessive) set. The unspecified human subject is coded by the word *mìndú* 'man'. The scope of such an object is people in general, but it may also include the speaker:

(117) *dzà'á*   *phlá-phlá-xən*   *tá*   *mndú*   *kàbgà*
       FUT   kill.PL-kill.PL-3PL   OBJ   man   because

       xáxəŋ   *tá*   *dzà-tá*   *dá-dà*   *ká*   *gáwá.*
       3PL   COM   kill-REF   father-1SG   COMP   Gawa
       ' "They will kill us, because it is they who killed my father," said Gawa.'

7. The specific object in the perfective aspect

The transitive verb may also have the third-person object marker *-n-* glossed as "3" for "third person". That marker *-n-* is a pronoun is evidenced by several distributional characteristics.

The verb, regardless of its underlying tone, has a low tone before -*n*-, a characteristic common to all pronominal direct objects:

(118)   *zà-n-zà*
        eat-3-eat
        'he ate it'

(119)   *sà-n-sà*
        drink-3-drink
        'he drank it'

The function of the marker -*n* - is to indicate that the object is specific, whether mentioned before in discourse, known to the hearer, or otherwise identifiable.

(120)   *xgà-n-xgá mbítsá*
        call-3-call Mbitsa
        'Mbitsa invited him/her'

If the object is not specific, the marker -*n* - is not used:

(121)   *xgà-xgá*   *mbítsá*   *tá*   *kwá*   *drwá*
        call-call   Mbitsa   OBJ   even   all
        'Mbitsa invited anybody, but nobody in particular' (cf. French
        n'importe qui)

Addition of the marker -*n*- in the above clause makes it referential, "invite everybody individually", i.e., the invited people are specific:

(122)   *xgà-n-xgá*   *mbítsá*   *tá*   *kwá*   *drwá*
        call-3-call   Mbitsa   obj   even   all
        'Mbitsa invited everybody individually'

Whenever the object is referential, it must be marked by the suffix -*n*. In the following example the speaker deploys the marker -*n* because in the previous discourse, the speaker had explicitly requested that Lion not be invited:

(123) sá-ghà   rvér   ná   á   kàbgà-wú kəl-ká
       arrive-D:PVG lion   COMP   INTERJ why   Q   take-2SG
       kà   xgà-n-tá   rvér [. . .]
       SEQ   call-3-REF   lion
       'While Lion was coming, "Why did you invite Lion . . . ?"'

The form -*n* can be the only marker of referentiality of the object, i.e., the object itself does not have to be marked by any definite markers or demonstratives. Thus, when the object is one of the anthropomorphized protagonists of the story, it is not modified by the definite marker, but the verb has the marker -*n*-. In addition to the preceding example compare the following:

(124) mbàdˀ ká   krì   kà   lá-ghà   zlghà-n-tá
       then COMP dog   SEQ   go-D:PVG   help-3-REF
       pákáwá ghúvì
       hyena
       'Then Dog came and helped Hyena'

If the verb does not have the marker -*n* -and it is followed by an ordinary noun, the noun is interpreted as an indefinite nominal object:

(125) sá-ghà   rvér   ná   á   kàbgà-w   kəl-ká
       arrive-D:PVG lion   COMP   INTERJ why   take-2SG
       kà   xgà   tá   rvérí
       SEQ   invite OBJ   lion
       'When a lion came, "Why did you invite a lion?" '

(126) mbàdˀ ká   krì   kà   lá-ghà   zlghá pákáwá ghúvì
       then COMP dog   SEQ   go-D:PVG   help   hyena
       'Then Dog came and helped a hyena'

If the nominal object following the verb is marked for definiteness, the verb must have the marker -*n*:-

(127) mbàdˀ ká   krì   kà   lá-ghà   zlghà-n-tá   tsá
       then COMP dog   SEQ   go-D:PVG   help-3-REF   DEF
       pákáwá ghúvì yá
       hyena   DEM
       'Then Dog came and helped the hyena'

The marker -*n*- cannot be used if the object is not marked as definite or specific. The omission of the marker -*n*- when the object is definite results in an ungrammatical sentence:

(128) **mbàd*   *ká*   *krì*   *kà*   *lá-ghà*   *zlghà*   *tá*
        then   COMP dog   SEQ   go-D:PVG help   OBJ
        tsá   *pákáwá ghúvì*   *yá*
        DEF   hyena   DEM
        for 'Then Dog came and helped the hyena'

The form -*n*- can be used without a nominal object overtly present in the clause, provided that the object has been previously mentioned in discourse:

(129) *mbàd*   *ká*   *krì*   *kà*   *lá-ghà*   *zlghà-n-tà*
        then   COMP dog   SEQ   go-D:PVG   help-3-REF
        'Then Dog came and helped him [hyena].'

The following two clauses follow each other in a conversation:

(130) *gá*   *tsí*   *nà*   *ká-'á*
        where 3SG   Q   COMP-3SG
        ' "Where is she?" he said'

(131) *ghzl-í-n-ghzlá-lú* . . .
        chase-AWAY-3-chase-UH
        ' "She has been chased away . . ." '

It is in complementary distribution with object pronouns for other persons:

(132) *mb-ì-dí-f-mbá-kúní*
        recover-AWAY-1SG-UP-recover-2PL
        'did you (PL) cure me?'

(133) *mbù-'ú-f-mbá-xən*
        recover-1DU-recover-3PL
        'they cured the two of us'

8. Inherent properties of verbs and object coding

The present section provides a typology of verbs with respect to the number and type of arguments they take, and the manner in which these arguments are coded.

There is a class of intransitive verbs that cannot have an object of any kind added. These verbs include *sá* 'come' and *lá* 'go'.

There is a class of intransitive verbs that in certain aspects must have an object. This object, however, must be cognate, i.e. formed from the same segmental structure as the verb, or semantically restricted to only one verb. Some of these verbs are *xwáy* 'run', *xán* 'sleep', and *lóm* 'fight'. The presence of an object with such verbs is a means of coding aspect. The verbs *sá* 'come' and *lá* 'depart' cannot have cognate objects.

There is a class of transitive verbs whose nominal object is marked by the preposition *tá* or by a suffix in the case of pronominal objects. Even when these verbs occur without a second argument, their subjects are controlling.

There is a class of labile verbs, where the same form can be used with one or two arguments. When these verbs occur with one argument only, i.e. with the subject, the subject represents the affected noun phrase, i.e. the noun phrase that undergoes change.

There is a class of verbs, mainly verbs of perception, that must have an object-coding affix added if followed by a nominal object.

There is a class of intransitive verbs whose only argument, the subject, is affected. These verbs must also have an object-coding affix added if they occur with a nominal object.

In what follows we describe the properties of each class of verbs and, on the basis of these properties, draw conclusions about the inherent lexical meaning of the verbs.

8.1. Intransitive verbs that do not allow an object

Some intransitive verbs, including *sá* 'come' and *lá* 'go', cannot have an object added:

(134)   *lá-là*

      go-go

      'he went' (speaker at the place higher than the potential destination)

One cannot add a nominal object to this class of verbs:

(135) *lá-là   tá   Mbitsa
       go-go   OBJ   Mbitsa
       for 'he made Mbitsa go' (or any other meaning)

       sá-sà
       'he came'

(136) *sá-sà   tá   mbítsá
       arrive-arrive   OBJ   Mbitsa
       for 'he made Mbitsa come' (or any other meaning)

One can, however, add a pronominal dative object to such verbs. Such an object codes the beneficiary. The coding of the pronominal object as dative is accomplished through the high tone on the verb in both reduplicated parts:

(137) l-íxà-lá
       go-1SG-go
       'go for me!' (but not 'he made me go')

Some intransitive verbs may have a pronominal object added. In such constructions the subject of the clause is the causer but not a participant in the event described by the verb, and the object is the participant in the event coded by the verb (cf. 6.2. above for the forms of the first person singular object pronoun):

(138) ddî-g-íxà-ddà
       fall-INN-1SG-fall
       'he made me fall' (by pushing me, or shaking the tree, etc..
Cf.:
(139) ddà-gá-ddà
       fall-INN-fall
       'he fell'

(140) ddà-gá-dd-í
       fall-INN-fall-1SG
       'I fell'

8.2. Object coding with verbs of perception

Verbs of perception without objects of any kind simply indicate the perception on the part of the subject. They do not code external stimuli of perception, things seen or heard. Thus if one asks:

(141) snà-n-sná-ká   tá   gwàdá   tà   ghóŋ-à   xìyá   rà
      hear-3-hear-2SG   OBJ   word   PREP   head-GEN   corn   Q
      'have you heard about the corn?'[5]

The answer is:

(142) sná-sn-ì
      hear-hear-1SG
      'I heard'

Addition of the marker -*n*- codes the specific piece of information asked about:

(143) sná-n-sn-ì
      hear-3-hear-1SG
      'I heard it'

If there is a nominal or pronominal object marked by *tá*, verbs of perception must have the marker -*n* - added

(144) snà-n-snà   tá   plìs-á   dá
      hear-3-hear   OBJ   horse-GEN   1SG
      'he heard my horse'

The difference between the use of the marker -*n*- with verbs of perception and its use with other verbs is that with verbs of perception it is used whenever there is a nominal object, regardless of whether the object is referential:

(145) snà-n-snà   tá   skwì
      hear-3-hear   OBJ   thing
      'he heard something'

(146) snà-n-snà   tá   yá   skwì   yá
      hear-3-hear   OBJ   DEM   thing   DEM
      'he heard that thing'

(147) *ǹghà-n-ǹghà*   *tá*   *mghám*
 see-3-see   OBJ   chief
 'he saw a chief'

(148) *ǹghà-n-ǹghà*   *tá*   *lúmá*
 see-3-see   OBJ   market
 'she saw the market'

The marker *-n-* occurs even in a negative clause:

(149) *xàdʼ*   *skwì*   *snà-n-tsí*   *wà*
 NEG   thing   hear-3-3SG   NEG
 'he heard nothing'

The marker *-n-* occurs with verbs of perception when there is a clausal complement:

(150) *zìʼyà-n-zìʼy-í*   *tá*   *drá-kú-á-ní*
 smell-3-smell-1SG   OBJ   burn-ABS-GEN-3SG
 'I smelled it burn'

9. Object coding in the independent imperfective aspect

Transitive verbs in the imperfective aspect must have the object marker *-áy*, (glossed as "PO" for "potential object"). The tone on the marker *-áy* becomes low if it is added to a low-tone verb ending in a vowel. The evidence that *-áy* is an object marker is provided by the fact that it cannot be used with intransitive verbs:

(151) *dzàʼá*   *xwáyá*
 FUT   run
 'he will run'

(152) *dzàʼá*   *xàní*
 FUT   sleep
 'he will sleep'

(153) *dzàʼá*   *ndrú*
 FUT   fly
 'it will fly'

The marker -*áy* occurs even if there is a nominal object in the clause. The marker is used regardless of whether the object is referential or definite:

(154) dzà'á hlə̀v-áy tá índà m̀ndú-xà
      FUT hit-PO OBJ all man-PL
      'he is going to hit everybody'

(155) dzà'á hlə̀v-áy tá m̀ndú
      FUT hit-PO OBJ man
      'he is going to hit somebody'

Here are examples with definite and indefinite objects:

(156) dzà'á hlə̀v-áy tá tsá kdîx yá
      FUT hit-PO OBJ DEF donkey DEM
      'he is going to hit this donkey'

(157) dzà'á b-ày tá tsá xgá yá
      FUT build-PO OBJ DEF house DEM
      'he is going to build the house'

(158) dzà'á b-ày tá xgá
      FUT build-PO OBJ house
      'he is going to build a house'

The potential object marker -*áy* cannot be replaced by the referential object marker -*n*:

(159) *dzà'á hlə̀vá-n tá tsá kdíx yá
      FUT hit-3 OBJ DEF donkey DEM
      for 'he is going to hit this donkey'

(160) *dzà'á hlə̀vá-n tá kdíx
      FUT hit-3 OBJ donkey
      for 'he is going to hit this donkey'

The potential object marker -*áy* is not used in the imperfective aspect in a pragmatically dependent clause, such as a comment on the focused element, even if the object has been previously mentioned in discourse: (Ø shows the place that *áy* would have occupied):

(161) índà   dimanche   ná   màmú   mariage   ndánà
       every Sunday (Fr.) COMP exist   marriage (Fr.) now
       'Every Sunday there is a marriage now'

(162) índà   dimanche   tà   màgá-Ø-xən
       every Sunday (Fr.) IMPF do-3PL
       'every Sunday they do it?'

Compare a pragmatically independent clause with the unspecified object marked:

(163) tà   màg-áy-xən   índà   dimanche
       IMPF   do-PO-3PL   every   Sunday (Fr.)
       'They do it every Sunday?'

Compare also the following sentence where both clauses are in the imperfective aspect and have the same verb *mág* 'do'. The first clause is pragmatically independent, and the verb has potential object marker *-áy*. The second clause is a comment on the focused locative, and the verb does not have the object marker *-áy*:

(164) tà   mág-áy-xən   àmá   ndá   mà   nìžéryà   tà
       IMPF   do-PO-3PL   but   ASSC   PREP Nigeria   IMPF
       mágú-lù   bàdʼ   tsá
       do-UH   day   DEF
       'They do it, but it is in Nigeria that they do it on those specific days.'

The omission of the potential object marker in the first clause and its insertion in the second clause, or either of those operations alone, results in an ungrammatical sentence:

(165) *tà   mág-xən   àmá   ndá   mà   nìžéryà   tà
       IMPF   do-3PL   but   ASSC   PREP Nigeria   IMPF
       máag-áy-lú   bàdʼ   tsá
       do-PO-UH   day   DEF
       for 'They do it, but it is in Nigeria that they do it on those specific days.'

10. Coding the addressee of verbs of saying

The addressee of verbs of saying is coded in a way similar to the coding of the object of verbs of perception. If the addressee is a noun or independent pronoun, the verb must have the third-person definite object suffix *-n*:

(166)   *lá-ghà*   *pákáw ghúvì*   *kà*   *mná-n-tá*   *krì*
         go-D:PVG hyena   SEQ   tell-3-REF dog
         'Hyena said to Dog . . .'

(167)   *kà*   *mná-n-tá*   *krì*   *tá*   *gwàdá*
         SEQ   tell-3-REF dog   OBJ word
         'and Dog told him the word'

If the clause does not have an addressee, the verb does not have the object pronoun:

(168)   *kà*   *mná-tá*   *krì*   *tá*   *gwàdá*
         SEQ   tell-REF   dog   OBJ word
         'and Dog said the word'

11. Additional argument coding

The marker *ná*, which we gloss as "DEM" because of its identity with the proximate demonstrative, can be added to verbs to code the existence of an additional argument in the proposition, whether such an argument is actually present in the clause or not. The marker *ná* has the distributional properties of the pronominal object marker in that it occupies the same position as other pronominal object markers, and it is mutually exclusive with affixed object markers. For similar phenomena in other Chadic languages see Frajzyngier 1985a. The use of the marker *ná* is motivated by several factors. One of these factors is the inherent lexical properties of verbs, with which we begin our discussion.

One class of verbs takes pronominal objects through suffixation without any additional changes, but it must have the marker *ná* when occurring with nominal objects. The verb *dífá* 'hide' has such properties. First its use with object pronouns:

(169)   *dífà-ghá-dífà*
hide-2SG-hide
'he hid you'

(170)   *kà   dífà-ghá-tá-tsí*
SEQ   hide-2SG-REF-3SG
'and consequently he hid you'

If the subject exercises control over the event and is at the same time the affected subject, the verb must have the goal-oriented marker *a* followed by the source-oriented marker *u*:

(171)   *kà   dífà-úgh-tá-tsí*
SEQ   hide:PVG-SO-REF-3SG
'and consequently he hid himself'

(172)   *dífà-úgh-dífá   vàzák*
hide:PVG-SO-hide   rooster
'rooster hid himself'

There are two conditions for the occurrence of these verbs: Either they have an object, or if they occur with the subject alone, the verb must have the source-oriented marker *u* added:

(173)   **dífá-dífá   vàzák*
hide:PVG-hide   rooster
for 'rooster hid himself' or 'rooster hid something'

One can add another nominal argument to the verb *dífá* only if the marker *ná* is suffixed to the verb. The verb preceding the marker *ná* must end in the goal-oriented marker *-a*. The last tone on the verb is low, which demonstrates that *ná* functions as the direct object:

(174)   *dífà-ná-dífà   tá   vàzák*
hide-DEM-hide   OBJ   rooster
'he hid the rooster'

(175)   *kà   dífà-ná-tá-tsí   tá   vàzák*
SEQ   hide-DEM-REF-3SG   OBJ   rooster
'and consequently he hid the rooster'

An object cannot be added without the form *ná* regardless of whether the verb has the goal-oriented marker *a* and/or the source-oriented marker *u*:

(176) **dífá-dífà tá vàzák*
hide-hide OBJ rooster
for 'he hid the rooster'

(177) **dífà-úgh-dífà tá vàzák*
hide-SO-hide OBJ rooster
for 'he hid the rooster'

If the object of the clause is an independent pronoun marked by the preposition *tá*, the verb must still be marked by the third-person pronoun *ná*, regardless of the person of the independent object:

(178) *kà dífà-ná-tá-tsí tí-í*
SEQ hide-DEM-REF-3SG OBJ-1SG
'and consequently he hid me'

The class of verbs that must take an additional argument marker takes as its subject the argument that is affected, that undergoes a change, or that does not have control over the event. The subject of the verb *pdà* 'remain' is the person or thing that remains:

(179) *pdà-pdá dàfá kí'yá ngá zwàn-à-ní*
remain-remain food small FOR child.PL-GEN-3SG
'some food remained for his children'

(180) *pdà-pdá mbítsá*
remain-remain Mbitsa
'Mbitsa remained'

The verb *pdà* can take a pronominal object only in the dative function as marked by the high tone on the verb and low tone on the pronoun:

(181) *pdá-ghà-pdá mbítsá*
remain-2SG-remain Mbitsa
'Mbitsa left something for you'

If a direct object, whether nominal or pronominal, is to be added to the verb *pdá* 'remain', through the preposition *tá*, the verb must have the marker *ná*:

(182) *pɗà-ná-pɗà*   *tá*   *ɗàfá*   *kíʼyá*   *ngá*
       remain-DEM-remain   OBJ   food   small   FOR
       zwàn-á-ní
       child.PL-GEN-3SG
       'she set aside some food for her children'

(183) *pɗà-ná-pɗà*   *tí-í*
       remain-DEM-remain   OBJ-1SG
       'he spared me' (e.g. in a battle)
   The verb *hlà* 'fall' is intransitive:

(184) *hlà-hlà*   *tà*   *xáɗìk*
       fall-fall   OBJ   ground
       'he fell down'

One can add an object pronoun to this verb and the meaning is "to find",
an extension of "fall upon":

(185) *hlà-ghá-ghá-hlà*
       fall-2SG-D:PVG-fall
       'he found you'

The addition of the marker *ná* alone results in a causative construction:

(186) *hlà-ná-hlà*   *tá*   *zɔ̀m*
       fall-DEM-fall   OBJ   snake
       'he made the snake fall'

(187) *hlà-ná-ghá-hlà*   *tá*   *zɔ̀m*
       fall-DEM-D:PVG-fall   OBJ   snake
       'he found a snake'

(188) *lá-mà zíngá dà   tùghwázàk   kà*
       go-IN Zinga PREP hibiscus   SEQ
       hlà-ná-ghá-tá-tsí   *tá*   *pákáwá ghúvì kà*
       find-DEM-D:PVG-REF-3SG OBJ   hyena   SEQ
       ks-ú-tá-tsí
       touch-SO-REF-3SG
       'When Zinga entered the hibiscus, he found Hyena and devoured
       him.'

One cannot add an object to the verb *hlà* 'fall' without the marker *ná* :

(189)   **lá-mà*   *zíngá*   *dà*   *tùghwázàk*   *kà*
      go-IN   Zinga   PREP   hibiscus   SEQ
      hlà-ghá-tá-tsí   *tá*   *pákáwùghúvì*   *kà*
      find-D:PVG-REF-3SG   OBJ   hyena   SEQ
      ks-ú-tá-tsí
      touch-SO-REF-3SG
      for 'When Zinga entered the hibiscus, he found Hyena and de
      voured him.'

The examples given so far may make one believe that the marker *ná* is simply an object marker. But that is not the case; as with some other verbs, the additional argument could be a new subject, albeit in a different semantic role. Consider the verb *zà* 'disappear, be forgotten'. Its subject in the unmarked form is the person or thing that disappeared, that is forgotten:

(190)   *zà-p-z-í*
      be forgotten-OUT-be forgotten-1SG
      'I was forgotten'

(191)   *zà-p-z-á*   *kdíx*
      be forgotten-OUT-be forgotten   donkey
      'a donkey was forgotten'

(192)   *zà-p-z-á*   *pìtsákw*
      be forgotten-OUT-be forgotten   hoe
      'a hoe was forgotten'

(193)   *zà-ghá-zà*
      disappear -D:PVG-disappear
      'he went far'

If one adds to the verb *zà* a subject that forgets, rather than one that is forgotten, the verb requires the marker *ná*:

(194)   *zà-ná-p-z-í*
      forget-DEM-OUT-forget-1SG
      'I forgot something'

(195)   *zà-ná-p-z-í*   *tá*   *pìtsákw-á-ghá*
      forget-DEM-OUT-forget-1SG   OBJ   hoe-GEN-2SG
      'I forgot your hoe'

(196)   *zà-p-z-ì   tá   pìtsákw-á-ghá
        forget-OUT-forget-1SG OBJ   hoe-GEN-2SG
        for 'I forgot your hoe'

The verb mbà 'recover' is inherently intransitive, its subject being the person or animal that recovers (from illness):

(197)   mbá-f-mbá   hlà
        recover-UP-recover   cow
        'the cow recovered'

(198)   mbá-mb-áf-mbá-mbá   hlà-xà
        recover-recover-UP-recover-recover cow-PL
        'the cows recovered'

(199)   mbá-f-mb-í
        recover-UP-recover-1SG
        'I recovered'

Pronominal object infixes can be added without any change to the verb:

(200)   mbì-dí-f-mbà
        cure-1-UP-cure
        'he cured me'

If one wants to add a nominal object, however, the verb must have the demonstrative ná affixed:

(201)   mbà-ná-f-mb-í   tá   hlà-dá
        cure-DEM-UP-cure-1SG   OBJ   cow-1SG
        'I cured my cow'

11.1. The additional argument marker and verbs of perception

The additional argument marker ná with verbs of perception adds the meaning of control on the part of the subject. The verb ngha 'to see' must have a high tone before the form ná; then it means "visit", "espy". Recall that with the pronoun n it has low tone and it means "to see":

(202) *ṅghá-ná-ṅghá*   *tá*   *plìs-á-ɗá*
       see-DEM-see   OBJ   horse-GEN-1SG
       'he espied my horse'

(203) *ṅghá-ná-ṅghá*   *tá*   *mghám*
       see-DEM-see   OBJ   chief
       'he visited a chief'
Cf.:
(204) *ṅghà-n-ṅghà*   *tá*   *mghám*
       see-3-see   OBJ   chief
       'he saw a chief'

(205) *ṅghá-ná-ṅghá*   *tá*   *lúmá*
       see-DEM-see   OBJ   market
       'she visited the market'

(206) *ṅghà-n-ṅghà*   *tá*   *lúmá*
       see-3-see   OBJ   market
       'she saw the market'

The verb *snà* 'hear, know' with the object marker *n* means "know". With high tone and the object marker *ná* it means "obey, follow", i.e., the verb involves control of the event:

(207) *sná-sn-í*
       hear-hear-1SG
       'I obeyed'

(208) *sná-ná-snà*   *tá*   *mghám*
       hear-DEM-hear   OBJ   chief
       'he obeyed the chief'
Cf.:
(209) *snà-n-snà*   *tá*   *mghám*
       hear-3-hear   OBJ   chief
       'he knew a chief'

An explanation for the marking of control through the additional argument marker must be sought in the very notion of additional argument. If there is more than one argument in a clause, the default function for the subject is control. Doing something for somebody obligatorily involves control over the event. In Hdi the dative function is coded by high tone on the verb. If the object of a visit is first rather than third person, the first-

person pronoun chosen is also the same as the one used for the dative function:

(210)   ngh-í-ɗá-ghá-nghá   tà   lúmá
        see-AWAY-1SG-D:PVG-see   PREP   market
        'he visited me at the market'

11.2. The addition of an argument to a transitive verb

The marker *ná* may be added to a transitive verb that takes an object in its unmarked form. When the form *ná* is added to an inherently transitive verb, it does not mean 'do for X' but rather 'in addition to doing something, do X':

(211)   zá-ná-zà
        eat-DEM-eat
        'eat again!'

When the marker *ná* follows another extension, it codes the presence of an additional object in the proposition, whether mentioned in the clause or not:

(212)   zɔ́-ɗá-ná-zá   tá   ɗàfá   tà   ghɔ́ŋ-á   ghzú
        eat-ALL-DEM-eat   OBJ   food   PREP   head-GEN   beer
        'he ate mush in addition to drinking beer'

If the sentence has only one object and the verb has the extension *ná*, the nominal object in the clause is interpreted as the "additional" object, added to some other known but not overtly coded object:

(213)   zɔ́-ɗá-ná-zá   tá   ɗàfá
        eat-ALL-DEM-eat   OBJ   food
        'in addition, he ate mush'
Cf.:
(214)   zà-ɗá-zà   tá   vàzák
        eat-ALL-eat   OBJ   rooster
        'he ate too much rooster'

With stative transitive verbs the marker *ná* gives a dynamic, non-stative meaning. The addition of *ná* to the verb *ngà* 'hold' results in the meaning 'grab', a dynamic event:

(215) *ngà-ná-ngá*   *rí* *ngà-ná*   *à*   *wà*   *á*   *ná*
      hold-DEM-hold Q hold-DEM NEG NEG 3SG DEM
      pákáwá ghúvì   nà   ká-'á
      hyena   Q   COMP-3SG
      ' "Did hyena grab it or didn't he?" he thought.'

Additional evidence that the marker *ná* codes goal orientation is provided by the fact that it cannot occur with the source-oriented marker *u*:

(216) *z-ú-zá*   *tá*   *vàzák*
      eat-SO-eat OBJ   rooster
      'he ate up a rooster'

Cf.:
(217) **z-ú-ná-zá*   *tá*   *vàzák*
      eat-SO-DEM-eat OBJ   rooster
      for 'he ate up a rooster'

12. Cognate objects

The term *cognate object* designates objects derived from the same root as the verb. Cognate objects can be derived from transitive or intransitive verbs that do not involve movement of the subject, such as *xàná* 'sleep, PL', *mbàzá* 'wash', *vàlá* 'jump'. Cognate objects are ending in the vowel *a*, *i*, or *u*. Like other objects, cognate objects are marked by the if they are separated from the verb by the subject:

(218) *mángá*   *hlg-ày-ní*   *tá*   *hlgù*
      instead   plant-PO-3SG   OBJ   plant
      'instead of him planting'

(219) *mángá*   *dzángáy-ďá*   *tá*   *dzángá*
      instead   study-1SG   OBJ   study
      'instead of me studying'

Cognate-object constructions have several functions. One of them is focus on the event or on the predicate, rather than on the participants:

(220) hlgà-f-hlgá-xən   tá   hlgù   àmá   dîyá-f   á
       plant-UP-plant-3PL   OBJ   plant   but   germinate-UP   NEG
       xìyá   wù
       corn   NEG
       'They planted, but the corn did not germinate.'

(221) dg-áy-tán   tá   dgú   yá
       thresh-PO-3PL OBJ   threshing   DEM
       'While they were threshing'

(222) kà   wùdə-xən tá   wdá,   kà   wdə-xən   tá   wdá,
       SEQ   fight-3PL OBJ   fight   SEQ   fight-PL   OBJ   fight
       kà   wdə-xən   tá   wdá,   mù   vwàx-á
       SEQ   fight-3PL OBJ   fight   PREP   field-GEN
       mídz-á   yàghí
       mother-in-law-GEN   squirrel
       'They fight, they fight, they fight, in the field of Squirrel's mother-in-law.'[6]

(223) kà   vníx-í   tá   vníxí
       SEQ   vomit-1SG   OBJ   vomit
       'after [. . .], I vomited'

A cognate object is obligatory if the verb is transitive, the aspect is perfective, and no object has been mentioned before in discourse. Thus, one cannot omit the cognate object from the following sentence:

(224) mbàdʼ ká   pákáwá ghúvì kà   xvá-tá   xvá
       then   COMP   hyena   SEQ   farm-REF   farming
       'Hyena had already farmed.'

Cognate objects may also be used in the normative and prohibitive moods:

(225) tà   xúl-á   vàkú   xìs   ngá   pgh-ày-ní   tá
       PREP   back-GEN   year   two   NORM   pour-PO-3SG   OBJ
       pghù
       libation
       'After two years he should pour a libation'

Cognate-object constructions can be used in questions about the truth of the proposition if the focus is on the predicate:

(226) àmá hləgà-f-hləgá-xən tá hləgə ré
but plant-UP-plant-3PL OBJ plant Q
àrí hləgà-f á wà xən
or plant-UP NEG NEG 3PL
'But did they plant or did they not plant?'

With some verbs, instead of the phonologically cognate object, an unspecified object *skwì* 'thing' can be used:

(227) tá tà d-ày-lú tá skwì xàdà kàì rá
COM IMPF cook-PO-UH OBJ thing there still Q
'Do they still cook over there?'

Intransitive verbs of motion *lá* 'go', *sá* 'come, and *vrá* 'return' cannot have cognate objects.

Cognate objects may be fronted for topicalization or focusing (all examples elicited):

(228) mbàzá mbàzá-ùgh-mbàzá Pghinta
wash wash-D:SO-wash Phinta
'washing, Phinta washed'

(229) mbàzá yá/ná mbàzá-ùgh-mbàzá Pghìntà
wash DEM/DEM wash-D:SO-wash Phinta
'washing, Phinta washed'
Cf.:
(230) mbàzá-ùgh-mbàzá Pghìntà tá mbàzá
wash-D:SO-wash Phinta OBJ wash
'Phinta washed'

13. Arguments of verbs *nzà* and *tsá* 'become'

Objects of the verbs *nzà* and *tsá* 'become' are coded in ways different from the coding of objects of other verbs. The second arguments of these verbs are marked by prepositions *kà* 'like' or *mándá* 'like'. The preposition *kà* 'like' is used for the strong assertion, whose semantic structure is "X became Y". The construction with *mándá* 'like' is used to code a lesser degree of certainty, corresponding to "X became almost Y".

The marker *kà* is a preposition and together with the noun that follows it constitutes a separate phrase, as shown by the fact that the referential

marker preceding it has low tone, the characteristic of the phrase-final position:

(231) kà   nzà-tà   kà   xáláwáy
       SEQ   become-REF   like   mad
       'and she became mad'

(232) kà   nzà-tà   mándá   xáláwáy
       SEQ   become-REF   like   mad
       'and she became almost mad'

(233) ts-ù-tsà   kà   xáláwáy
       become-SO-become   like   mad
       'he became mad'

(234) ts-ù-tsà   mándá xáláwáy
       become-SO-become   like mad
       'he became almost mad'

14. Independent object pronouns

Independent pronouns are marked by the preposition *tá*. Table 12 represents the set of independent object pronouns:

Table 12. Independent object pronouns

	Singular	Dual	Plural
First	íi	úu	ámú (INCL)
			ánní (EXCL)
Second	kághá		kàghúnì
Third	tsá		xə̀n

The vowel *a* of the object marker *tá* is replaced by the first vowel of vowel-initial object pronouns, hence *tíí* and *túú* for the first-person singular and the first-person dual.

Pronominal objects are coded by the independent form in three syntactic environments: the stative aspect, in pragmatically dependent clauses, and in object topicalization. The third-person plural may be coded only by the independent pronoun.

14.1. Pragmatically dependent clauses

The independent form of the pronoun preceded by the preposition *tá* codes the object in several types of pragmatically dependent clauses. Here is an illustration of the use of the independent object pronoun in various types of such clauses.

Focus on object:

(235)   *mágá-tà-dá*   *tá*   *lèkól*   *kày*   *mántsá*   *mángá*
      do-REF-1SG   OBJ   school   then   then   instead
      dzáng-áy-dá   *tá*   *dzángá* *kà*   *ksá-f-tá*   *dángwà*
      study-PO-1SG   OBJ   study   SEQ   touch-UP-REF   illness
      t-î
      OBJ-1SG
      'Instead of me studying, an illness caught me.'

Compare a non-focused clause:

(236)   *kà*   *ks-ì-f-tá*   *dángwà*
      SEQ   touch-1SG-UP-REF   illness
      'an illness caught me'

(237)   *ksá-f-tà*   *dángwà*   *t-î*   *kày*   *mántsá*
      touch-UP-REF:SUBJ   illness   OBJ-1SG   then   then
      lá-xà-dá   *tà*   *lòpitál*   *má*   *xàdú*   *kwóbù*
      go-DOWN-1SG   PREP   hospital (Fr.)   even   lack   money
      wù
      NEG
      'When the illness caught me, I went to a hospital, [but] there was no money then anymore.'

Non-focused variant:

(238)   *ks-í-f-tà*   *dángwà*
      touch-1SG-UP-REF   illness
      'when illness caught me'

Comment on the focus clause:
If one of the arguments of the clause is fronted for focus, the remaining material is a comment on the focused element. In such clauses the

pronominal object is coded by the independent form preceded by the preposition *tá*:

(239) *mándá xìyá   tà   ngh-íyù   tá   kághá*
  like   guinea corn IMPF see-1SG   OBJ   2SG
  'you are very beautiful' (lit. 'I see you like guinea corn')

(240) *fitík   d'vá-fà-á-ká   tí-íí   wù*
  since like-UP-NEG-2SG   OBJ-1SG   NEG
  'since you do not like me . . . '

Focus on subject:

(241) *íí   dzà'á   ghùnà-ghá   tá   kághá*
  1SG   FUT   send-D:PVG   OBJ   2SG
  'it is I who will send you'

14.2. Independent object pronouns in the stative

The verb in the stative aspect cannot have pronominal objects affixed, and therefore object pronouns, if any, must be marked by the preposition *tá*:

(242) *ndá   nghá   tí-í*
  STAT   see   OBJ-1SG
  'he saw me'

(243) **ndá   nghá-ì   [gh-íí]*
  STAT   see-1SG
  for 'he saw me'

Another motivation for the use of independent object pronouns is a constraint on what arguments the verb may take in the affixal form. If the verb takes a dative argument as an affix, the direct object is coded by the independent pronoun:

(244) *ghùnà-gá-ghà-ghùná   màlá-d'á   tí-ì*
  send-INN-D:PVG-send   older brother-1SG   OBJ-1SG
  'my older brother sent me to you'

15. Conclusions

The language has two grammatical relations, the first argument and the second argument, which for the sake of reference are called "subject" and "object". The two arguments have different syntactic properties, but they do not have specific semantic roles associated with them. The "subject" is coded through the position immediately following the verb. The "object" is coded by the preposition *tá* preceding the nominal object, including independent pronouns or by object suffixes to the verb. The first-person pronominal object may be coded by three forms, each coding a different type of affectedness of the speaker. The third-person singular pronominal object is unmarked. The language does, however, have a means of coding the referentiality of the third-person pronominal object.

There are several classes of verbs that differ in the way an object can be added to them. Verbs of perception, if occurring with a nominal object, must have the referential object marker *n* added. The addition of a pronominal object to an intransitive verb results in a causative construction.

Chapter 7

Coding the semantic roles of arguments

1. Introduction

There is no one semantic role/function associated with the category *subject* in Hdi. The semantic function of subject is coded by the stem-forming markers *a*, *u*, and *i*, and by verbal extensions. Similarly, there is no one semantic function associated with the argument marked by the preposition *tá*, which we refer to as object. Although objects are in most instances affected, they vary in degree of affectedness. The semantic role of object is coded by stem-forming markers and by verbal extensions. Verbal stems formed with the markers *a* and *u* may be further changed by the addition of another marker from the same set (but not the same marker) and by the addition of various extensions. All these markers are affixed to verbs. The categories *subject* and *object* simply represent the first and second arguments of the verb.

The semantic relations coded through the system of inflectional marking on the verb include: goal orientation, source orientation, which often implies affectedness of the subject or the event done for the benefit of the subject; partial affectedness of the object; indirect affectedness of the subject; and total affectedness of the object, or the object's disappearance.

2. Point of view of source

Source orientation is marked by the vowel *u* added to the verbal root. The source-oriented marker assumes the tone of the verb:

(1)   *z-ú-zà*
        eat-SO-eat
        'he ate everything' (Spanish: *él se comió* Russian: *on najelsja*)

(2)   *s-ù-sà*
        drink-SO-drink
        'he drank everything' (Spanish: *él se tomó*)

With some intransitive verbs, the marker *u* codes affectedness of the subject:

(3)   *kà   mt-ú-tá   dá-nì*
       SEQ   die-SO-REF   father-3SG
       'and his father died'

With transitive verbs, the source-oriented marker indicates that the subject is affected, as in the two examples given above. With verbs that can take either a controlling or an affected subject, the marker *u* indicates that the subject is affected:

(4)   *dr-ú-drá   xàsúù*
       burn-SO-burn   wood
       'the wood burned'

(5)   *bádz-ú-bádzá   lgùt*
       spoil-SO-spoil   cloth
       'the cloth spoiled'

Such verbs cannot be used with the goal-oriented marker *a* and with an inanimate subject:

(6)   **bádzá-bádzá   lgùt*
       spoil-spoil   cloth
       for 'the cloth spoiled'

If a controlling subject occurs with such a verb, a marker entailing the existence of a controlling subject must be added to the verb. Such extensions are all goal-oriented markers, such as *-í-ŋ* "AWAY-3" or *-ná* 'additional argument' marker.

(7)   *bádz-í-n-bádz-í*   *tá*   *lgùt* → [*báj-í-n-báj-í tá lgùt*]
       spoil-AWAY-3-spoil-1SG   OBJ   cloth
       'I spoiled the cloth'

(8)   *kà   bádz-ì-ŋ-bàdzà   kúni*
       SEQ   spoil-AWAY-3-spoil   2PL
       'if you spoil it' (taken from written narrative)

The source-oriented marker may imply action for the benefit of the subject. When the source-oriented marker *u* is added after the vowel *a*, it is realized [ugh]:

(9)   *kà   klá-úgh-tà   kà   f-ù-d-ú-tà*
      SEQ   take-D:SO-REF   SEQ   put-SO-ALL-EP-REF
      'he took it out [of the pot] and ate it up' (lit. 'put it in himself')

The source-oriented marker *u* may occur after the goal-oriented marker *a*. The verb *d'ífà* 'hide' can take *u* only after the vowel *a*, viz. *d'ífà-úgh-tà* and not **d'ífú-tà*, because hiding involves the subject's control:

(10) *kà   lá-m-tsí   d'ífà-úgh-tà*
      SEQ   go-IN-3SG   hide-SO-REF
      'And he entered and hid himself.'

(11) *kà   lá-ghú   vàzák   d'ífà-úgh-tà*
      SEQ   go-D:SO   rooster   hide-SO-REF
      'And the rooster went and hid himself.'

The verb *d'v´* 'like' provides excellent evidence for the hypothesis that the vowel *a* codes control on the part of the subject, and that the vowel *u* codes the affectedness of the subject. If the vowel *u* is added to the stem ending in *á*, the meaning of the verb involves control on the part of the subject "choose, select, prefer":

(12) *kà   d'vá-úgh-tá   mákwà   tá   zvàxw*
      SEQ   like-SO-REF   girl   OBJ   bat
      'the girl chose the bat [for herself]'

If the vowel *u* is added directly to the verbal root, the verbal stem means 'to love', a process that does not involve control:

(13) *kà   d'v-ú-tá   mákwà   tá   zvàxw*
      SEQ   like-SO-REF   girl   OBJ   bat
      'the girl liked the bat'

There is a class of verbs whose basic theme codes the affectedness of the subject. These verbs have the vowel *u* as part of their stem. Subjects of those verbs, i.e. the unmarked arguments, are affected rather than controlling:

(14) *fú-fá   ìmí*
      heat-heat   water
      'the water boiled'

(15) *rwú-rwá   xìyá*
      rot-rot   guinea corn
      'the guinea corn dried'

When a proposition containing a stem that inherently codes the affect-edness of the subject contains a goal, the stem must be followed by the goal-oriented marker *a*. Here is an example with the verb *nù* 'be fat, become fat':

(16) *tsá   mìndú   nu'wà-ná-f-lú*   *tá*   *hlà*   *yá*
      DEF   man   fatten-PVG-DEM-UP-UH   OBJ   cow   DEM
      'the man for whom the cow was fattened'

3. Point of view of source in the imperfective

3.1. The form of the absolutive marker

The point of view of the source in the imperfective aspect is marked by the suffix *-kú*, glossed as "ABS" for "absolutive", added to the verbal stem ending in the vowel *a*. Subjects following the verb with extension *-kú* are either affected arguments of transitive verbs or subjects of intransitive verbs; they are never controlling arguments of transitive verbs.

(17) *tsá   xìyá   tà   ghwálà-kú   yá*
      DEF   corn   IMPF   dry-ABS   DEM
      'corn that dries'
Cf.:
(18) *tsá   xìyá   tà   ghwál-tsí   yá*
      DEF   corn   IMPF   dry-3SG   DEM
      'corn that he dries'

(19) *tà   ghwálá-kú   é*
      IMPF   dry-ABS   Q (*est* [Fr.])
      'So it dries up?'

(20)   *tà*   *sà-kú*   *ìmí*
        IMPF   drink-ABS   water
        'the water is drinkable'

3.2. The functions of the absolutive marker

The marker *kú* represents the point of view of the object of the transitive verb or the subject of an intransitive verb. The evidence for this hypothesis is that it cannot occur with the potential object marker *-áy*, nor can it occur with the referential marker *-ta*. The marker *kú* is the imperfective counterpart of the source-oriented marker *u*, which is used only in the perfective aspect:

(21)   *tà*   *drá-kú*   *xàsú'ù*
        IMPF   burn-ABS   wood
        'the wood is burning, is burnable'

(22)   *tà*   *drú-tá*   *xàsú'ù*
        IMPF   burn:SO-REF   wood
        'the wood has burned'

For inherently transitive verbs, the subject of the verb with *kú* is not controlling:

(23)   *díyá-f-díyá-tsí*   *yá*   *ná*   *àmá*   *tà*
        germinate-UP-germinate-3SG   DEM   COMP   but   IMPF
        ghwálá-kú
        dry-ABS
        'It has germinated, but it dries up'
Cf.:
(24)   *ghùb-í-n-ghùbá*   *àmá*   *ndá*   *ná-ná*   *tà*
        wash-AWAY-3-wash   but   ASSC   DEM-DEM   IMPF
        ghwál-áy-ghwál-áy
        dry-PO-dry-PO
        'he washed [it] and now he is drying [it] up'

The form with the marker *kú*, like other verbal forms, can be followed by possessive subject pronouns in certain types of clauses. The form with *ku* represents the non-controlling subject:

(25)   *kɗà-kú-á-n*   *tsá*   *xàdà*
        finish-ABS-GEN-3SG   DEF   here
        'It ends here.'
Cf.:
(26)   *kɗ-í-n-tà-n*   *tsá*   *xàdà*
        finish-AWAY-3-REF-3SG DEF   here
        'he finished it here'

(27)   *tà*   *wáwà-kw-á-ní*   *krì*
        PREP   walk around-ABS-GEN-3SG   dog
        'Dog is taking a walk'
Cf.:
(28)   *tà*   *wáw-ày*   *krì*
        PREP   walk around-PO   dog
        'Dog is walking somebody'

The absolutive extension can be used even if the verb has an object, but
the extension indicates the state of the subject:

(29)   *kɗà-kú-á-tán*   *tà*   *víxá-p-tá*   *vàrà*   *mbàɗ*
        finish-ABS-GEN-3PL   PREP   sift-OUT-REF   beans   then
        ká-xən   *kà*   *wà-dá-p-tá*   *tsá*   *vàrà*   *yá*
        COMP-3PL   SEQ   take.PL-ALL-OUT-REF   DEF   beans   DEM
        dzághà
        home
        'When they were done sifting the beans, they brought them home'

Compare the goal-oriented:

(30)   *kɗ-ú-kɗà-xən*   *mà*   *víxá*   *vàrà*
        finish-SO-finish-3PL   PREP   sift   beans
        'they finished sifting the beans'

With the verb *yà* 'beget, give birth' the extension *kú* indicates the event
from the point of view of the person born:

(31)   *ó*   *ghàlà-ká*   *ká*   *vàrà*   *dú'ú*   *ghàlyá*
        INTERJ   like this   COMP   beans   father-1DU   earlier
        tà   *yà-kú*   *ndá*   *slá*   *ndá*   *slá*   *[tsá]*
        IMPF   yield-ABS   ASSC   leg   ASSC   leg   like that
        ' "Oh, it is like this: The beans of our forefathers earlier were born
        with feet." '

Cf.:
(32) *yà-f-yà*   *dágálá*
      give birth-UP-give birth   a lot
      'it has produced a lot'

The extension is used when there is only one argument of a transitive verb and that argument is affected rather than controlling:

(33) *ndá*   *sn-íyù*   *ká*   *tsá*   *mariage-xà*   *yá*   *tà*
      STAT   hear-1SG   COMP   DEF   marriage (Fr.)-PL   DEM   IMPF
      mággá-kú gà   *xdí*   *ká-xàn*   *mándì*
      make-ABS PREP   Hdi   COMP-3PL   like
      ɓángàl-xà   *yá*
      marriage (Ful.)-PL   DEM
      'I have heard that marriages are being made in Hdi.'

(34) *tà*   *mággá-kú*   *á*   *tsà*   *wà*
      IMPF   do-ABS   NEG   DEF   NEG
      'It is being done, isn't it?'
Cf.:
(35) *tà*   *mág-áy-lú*   *tá*   *mariage*   *gà*   *xdí*
      IMPF   do-PO-UH   OBJ   marriage (Fr.)   PREP   Hdi
      'they are arranging marriages in Hdi'

(36) *tà*   *tsírá-kú*   *tà*   *vghá*
      IMPF   defecate-ABS PREP   body
      'he defecated on himself'

The following example contains four verbs with the controlling subject and one with the affected subject:

(37) *kà*   *sá-ghà*   *ghùb-í-n-tà*   *kà*   *ɗgá-tà*
      SEQ   arrive-D:PVG   wash-AWAY-3-REF   SEQ   pound-REF
      kà   *pghám-tà*   *m-ìmí*   *ngá*   *lɓá-kw-á-ní*
      SEQ   pour-REF   IN-water   FOR   wet-ABS-GEN-3SG
      'she came, washed it, pounded it, poured it into water, for it to become wet'

The absolutive extension can be added to the intransitive verb *ndzà* 'happen'. The affected argument is represented by possessive pronouns:

(38) *nà-ná   gwàɗá   dzà'á   gwàɗ-í   náná   tà   ghə́ng-à*
      DEM-DEM word   FUT   tell-1SG DEM   PREP head-GEN
      ndzà-kw-á-ɗá   kɗá
      happen-ABS-1SG last year
      'The story that I am going to tell is about what happened to me last
      year.'

4. Point of view of goal

Goal orientation is marked by the suffix -*a*, which can be added either di-
rectly to the verbal root or to the source-oriented marker *u*. The goal-ori-
ented marker codes the event as directed toward a goal and thereby implies
that the subject is controlling.

Evidence that the marker *a* is a separate morpheme rather than an un-
predictable underlying component of the verb is provided by the fact that it
can occur after the source-oriented marker *u*. In the sequence /C[labial or
velar] u a/, the vowel *u* is reduced to the feature [round], realized as labial-
ization of the preceding consonant:

(39) *fw-á-fwà   tá   ìmí*
      heat-PVG-heat OBJ   water
      'he heated water'

Cf.:

(40) *fú-fwà   ìmí*
      heat up-heat up water
      'water heated up'

(41) *rw-á-rwà   tá   zíndíŋ*
      rot-PVG-rot   OBJ   germinated corn
      'he made the germinated corn rot'

(42) *rw-í-n-rwà   tá   xìyá*
      rot-AWAY-3-rot OBJ   corn
      'he made the corn spoil' (by damaging the stems)

Compare the verb with a non-controlling subject:

(43) *rwú-rwá   xìyá*
      rot-rot   guinea corn
      'the guinea corn dried'

The verb with the goal-oriented marker cannot be used with subjects that physically cannot have control over the event:

(44)   *fw-á-fwà   ìmí
       boil-PVG-boil   water
       for 'the water boiled'

There is a class of verbs that can be used with a controlling subject and an affected object. These are prototypically transitive verbs, in that their inherent properties and underlying form indicate the presence of the controlling subject and affected object. If the affected object is the subject of these verbs, they require the source-oriented marker *ú*:

(45)   lɓá-lɓ-í   tá   lgùt
       wet-wet-1SG   OBJ   cloth
       'I wet the cloth'

(46)   lɓ-ú-lɓá   lgùt
       wet-SO-wet   cloth
       'the cloth became wet'

A non-controlling subject cannot occur with the goal-oriented marker *a*:

(47)   *lɓá-lɓà   lgùt
       wet-wet   cloth
       for 'the cloth became wet'

The verb *ghùál* 'dry' displays the same properties:

(48)   ghwálá-ghùál-í   tá   lgùt
       dry-dry-1SG   OBJ   cloth
       'I dried the cloth'

(49)   ghùál-ú-ghwálá   lgùt
       dry-SO-dry   cloth
       'the cloth dried'

5. Movement-away extension í

5.1. The form of the movement-away extension

The movement-away extension *í*, glossed as "AWAY", is suffixed directly to the root and acquires the underlying tone of the last syllable of the verb. The tone on the verb may vary, depending on the role of the following object, as described earlier. If there are object suffixes, the movement-away extension, as well as point-of-view-of-source extension immediately precede the object suffix. If there is no other grammatical marker between the verb and the object suffix, it makes no difference whether the movement-away marker is analyzed as preceding the object suffix or following the verb. The third-person object suffix *n* must be used if the object is third person:

(50)   *pgh-ì-n-pghà*   *tá*   *hlú'wí*
         put-AWAY-3-put   OBJ   meat
         'she threw away meat'

(51)   *pgh-í-n-pghá*   *tá*   *hlú'wí*   *dìstà*   *d'àlí*
         put-AWAY-3-put   OBJ   meat   into   sauce
         'she put meat into a sauce'

The movement-away extension occurs only in the perfective forms of the verb coded either through reduplication or through the marker *kà* in sequential clauses. The extension must be followed by one of the pronominal suffixes, *d'* for the first-person singular, *gh* for the second-person singular, or *n* for the third-person singular and third-person plural:

(52)   *mbd'-ì-d'-mbd'à*
         replace-AWAY-1SG-replace
         'he replaced me' (he came and I went away)

(53)   *mbd'-ì-gh-mbd'à*
         replace-AWAY-2SG-replace
         'he replaced you'

(54)   *mbd'-ì-n-mbd'à*
         replace-AWAY-3-replace
         'he replaced him'

5.2. The functions of the movement-away extension

The movement-away extension can be added only to transitive verbs. It indicates either that the object is no longer at the scene at which the event occurred or that the object does not have its previous integrity:

(55)   kà   zl-í-n-tá   tsá   mghám   yá
       SEQ   chase-AWAY-3-REF   DEF   chief   DEM
       [tá zón á-nî]   tá   tsá   màrkw-á-tàn   yá
       OBJ son-GEN 3SG [error] OBJ   DEF   wife-GEN-3PL   DEM
       'The chief chased away his wife.'

(56)   ngh-í-n-nghá   tí-'í   tà   lúumá
       see-AWAY-3-see   OBJ-1SG   PREP   market
       'he saw me pass by at the market'

(57)   kà   zl-í-n-tá-tsí   kà   xwáyá-uhg-tà
       SEQ   leave-AWAY-3-REF-3SG   SEQ   run-SO-REF
       'he left [a bag] and escaped'

(58)   mbàd ká-'á   kà   w-í-g-í-n-tà   kà
       then   COMP-3SG SEQ   take.PL-AWAY-INN-3-REF   SEQ
       lá-ghw-í   dífà-ná-tá   zwàn-à-ní
       go-D:SO-REF   hide-3-REF   child.PL-GEN-3SG
       'He took his children and hid them.'

Even with verbs that do not affect the object in any way, the movement-away extension indicates that the object is not in the place referred to in the clause. With verbs of perception, the extension indicates that the object is no longer present at the place where it was perceived:

(59)   ngh-í-n-nghá   á   kwá   tà   ptà
       see-AWAY-3-see   OBJ   calabash   PREP   mat
       'he saw a calabash on the mat' (the calabash is no longer there)
Cf.:
(60)   nghà-n-nghà   tá   kwá   tà   ptà
       see-3-see   OBJ   calabash   PREP   mat
       'he saw a calabash on the mat' (the calabash may still be there)

(61)   ngh-í-n-ngh-í   tá   krì
       see-AWAY-3-see-1SG   OBJ   dog
       'I saw a dog' (running, no longer there)

Cf.:

(62)   *ṅghà-n-ṅgh-í   tá*   *kri*
      see-3-see-1SG OBJ   dog
      'I saw a dog' (it may still be there)

Adding the movement-away extension to transitive verbs that do not imply movement has the meaning of "verb + take away". This is especially evident with verbs whose inherent meaning implies acquisition, such as "catch", "take", "gather", "give birth":

(63)   *tàlá   zàŋwá   tsá   yá   tá   màrà-n-tá*
      exorcise   demon   DEF   DEM   COM   show-3-REF
      xlə́-g-í-n-tá   *índà   ghwádàk-á   skwì   mà*
      gather-INN-AWAY-3-REF   all   bad-GEN   thing   PREP
      xgá   yá
      home   DEM
      'It is *tàlá zàŋwá* that shows that one has chased away all the bad things from the compound.'

(64)   *kl-í-n-klà*
      take-AWAY-3-take
      'he took it away'

(65)   *ks-í-gh-ksà*
      touch-AWAY-2SG-touch
      'he caught you and threw you away'

The following examples illustrate the function of indicating the effect on the integrity of the object:

(66)   *ɓl-í-n-ɓlà*   *tá*   *xàsú'ù*
      break-AWAY-3-break   OBJ   branch
      'he broke the branch' (into two parts)

(67)   *dr-í-n-drà*   *tá*   *xàsú'ù*
      burn-AWAY-3-burn   OBJ   wood
      'he burned the wood away' (implies he will not have use for the product)

(68) kɗà-kw-á   fìtík-á   zl-í-n-tá   zwán-ì
      finish-ABS-GEN   time-GEN   free-AWAY-3-REF   child-PL
      'at the end of vacation' (lit. 'at the end of the time of the release of
      children')

The extension is used when the movement involves placing one thing
under another:

(69) mbàɗ   ká   kà   v-ì-n-tá   vú
      then   COMP   SEQ   light-AWAY-3-REF   fire
      kì'yá   ndá   mìstá-ní
      small   PREP   under-3SG
      'Then he lit a small fire under it.'

Cf.:

(70) mbàɗ   ká   kà   v-àf-tá   vú   tà   kzún
      then   COMP   SEQ   light-UP-REF   fire   PREP   grass
      'Then he lit the fire in the grass.'

(71) kà   l-íyù   ngás-í-n-tá   vú   mìstá   mbízà
      SEQ   go-1SG   push in-AWAY-3-REF   fire   under   bean dish
      ká   pákáw ghúvì
      COMP   hyena
      ' "I have to push in the fire under the bean dish," said Hyena.'

5.3. Transitivizing functions of the movement-away extension

The movement-away extension combined with the third-person definite
object marker n has a secondary function of transitivizing verbs. Thus the
intransitive verb vrá 'return' becomes transitive through the addition of i-n:

(72) vr-í-n-vrà   tà   pìtsákw
      return-AWAY-3-return   OBJ   hoe
      'he returned the hoe'

Cf.:

(73) vrà-k-vrà
      return-INN-return
      'he returned'

Certain transitive verbs cannot be used with the movement-away ex-
tension because the verb inherently involves separation (vlá 'give'). These

verbs thus provide additional evidence for the function of the extension as implying movement away:

(74) *vl-í-n-vl-íyù   tá   pìtsákw-á-ɗá
      give-AWAY-3-give-1SG   OBJ   hoe-GEN-1SG
      for 'I gave him my hoe'

Cf.:

(75) vlá-n-vl-íyù   tá   pìtsákw-á-ɗá
      give-3-give-1SG   OBJ   hoe-GEN-1SG
      'I gave him my hoe'

6. Dative and benefactive argument coding

The term *dative* is used in the present work for the recipient of an object, and the term *benefactive* for the beneficiary of an event. Hence, these are terms describing semantic relations between arguments and the verb. Both of these functions may be coded by the same formal means. The coding of dative/benefactive function of the object, whether nominal or pronominal, is an interaction between the inherent properties of the verb and the coding means available.

If the dative argument is nominal, it is coded by the preposition *tá*, the same preposition that codes the direct object. The function of the argument as dative rather than direct object is coded by the high tone on the verb. The nominal dative argument, including third-person plural, can precede or follow the direct object, i.e., the word order with a dative and direct object can be either Verb Dative Object or Verb Object Dative:

(76) vlá-n-vl-í   tá   xàn   tá   kóɓù
      give-3-give-1SG   OBJ   3PL   OBJ   money
      'I gave them money'
      vlá-n-vl-í   tá   kóɓù   tá   xàn
      give-3-give-1SG   OBJ   money OBJ   3PL
      'I gave them money'

(77) vlá-n-vlá   mbítsá   tá   kóɓù   tá   mbáká
      give-3-give   Mbitsa   OBJ   money   OBJ   Mbaka
      'Mbitsa gave money to Baka'

If there is a possibility of ambiguity, the dative phrase follows the direct object:

(78) vlá-n-vl-íyù   tá   kùzún   tá   gù-xà
      give-3-give-1SG   OBJ   fresh leaves   OBJ   goat-PL
      'I gave him leaves for the goats'

6.1. Coding the dative on the verb

If the verb can occur with either direct or dative object pronouns, the distinction between the dative and direct object function is carried by the verb and by the form of the pronouns. In both cases the coding is through tonal changes. The two means are, however, independent of each other.

The verb codes the presence of a dative argument through a high tone on the last syllable. In the case of reduplicated verb, both parts of the verb end in a high tone. The evidence that tone alone codes the difference between dative and direct object is provided by examples that are identical except for the tone on the verb. In the following example the first-person vowel *i* assumes the tone of the verb. For the benefactive function the tone is high; for the direct object function the tone is low:

(79) pď-íxà-pďá
      leave-1SG-leave
      'he left it for me'

(80) pď-ìxà-pďà
      leave-1SG-leave
      'I was abandoned', 'he left me'

The distinction between dative and direct object function in the situation when the pronoun is separated from the verb by the allative extension *dá* or the inner-space extension *gá* is marked on the verb. The pronoun is coded as dative by the verbal root and a high tone. An epenthetic vowel is inserted after the verb to carry the high tone of the dative marker and to allow proper syllabification. The epenthetic vowel is schwa if the vowel in the next syllable is *a*:

(81) klə́-dá-ghá-klà   tá   pìtsákw   dzághà
      take-ALL-2SG-take   OBJ   hoe   home
      'he brought a hoe for you to your house'

(82) kəl -g-á-ná-ghà   ìmí
      take-INN-PVG-3SG-D:PVG   water
      'bring him some water!'

Similarly with the allative extension *d*:

(83)   *kəl-d-á-ná-ghà*   *ìmí*
        take-ALL-PVG-3SG-D:PVG   water
        'take some water for him!'

If the next syllable has a high vowel *i* or *u*, the epenthetic vowel is *i* or *u*:

(84)   *kl-í-g-í-dá-ghà*   *wá*   *kdîx-á-dá,*
        take-EP-INN-AWAY-1SG-D:PVG   NEG   donkey-GEN-1SG
        ká-'á   *kà*   *wàxú*
        COMP-3SG like   cry
        ' "bring me back my donkey," he said crying'

In the following example the epenthetic vowel has been inserted twice: first after the verb *b* 'build' and second after the allative extension *d*:

(85)   *b-í-dí-dî-f-bà*   *tá*   *mùxúl*
        build-EP-ALL-AWAY-1SG-UP-build   OBJ   wall
        'he built me a wall'

The coding of the pronominal object as direct is done through the goal-oriented marker *à* and the low tone following the verbal root:

(86)   *klà-dá-ghá-ghà-klà*   *dzághà*
        take-ALL-2SG-D:PVG-take-3SG   home
        'he brought you home'

If the root has no vowel or has schwa and it is followed by the allative or inner-space extension, the pronominal object cannot be interpreted as direct:

(87)   **klə-dá-ghá-ghà-klà*   *dzághà*
        take-ALL-2SG-D:PVG-take-3SG   home
        for 'he brought you home'

Under the conditions of vowel assimilation, the vocalic distinction in the verb disappears and the role of the object pronoun is coded solely by the tone on the verb:

(88)   *kl-ì-gí-ɗá-ghà-klà*   *dì*   *íŋní*
       take-EP-INN-AWAY-1SG-D:PVG-take   PREP   1PL.EXCL
       'he brought me home'

(89)   *kl-í-gí-ɗá-ghà-klá*   *tá*   *krì*   *dì*
       take-EP-INN-AWAY-1SG-D:PVG-take   OBJ   dog   PREP
       íŋní
       1PL.EXCL
       'he brought a dog for me to my home'

Consider the verb *ɗáwà* 'ask'. With the high tone the verb means "ask for a thing, order". If the dative pronoun is present, then the pronoun represents the beneficiary of the event:

(90)   *ɗáwá-ná-ɗáwá*   *tá*   *dàfá*
       ask-DEM-ask   OBJ   food
       'he asked for food for him'

The source-oriented marker *u* indicates that the beneficiary is the subject:

(91)   *ɗáw-ú-ɗáwá*   *tá*   *dàfá*
       ask-SO-ask   OBJ   food
       'he asked for food for himself'

The high tone of the verb alone codes the presence of the dative argument, even if the argument itself is not overtly coded in the clause. The high tone occurs on the verb-final syllable even if there is no subject following the verb:

(92)   *ɗáwá-ɗáwá*   *tá*   *dàfá*
       ask-ask   OBJ   food
       'he ordered food'

(93)   *ɗáwá-ɗáwá*   *músà*   *tá*   *dàfá*
       ask-ask   Musa   OBJ   food
       'Musa ordered food'

With low tone on the verb, the meaning does not imply the presence of an addressee in the event:

(94)   *ɗáwà-n-ɗáwà*   *tá*   *dàfá*
    ask-3-ask   OBJ   food
    'he asked about food'

The high tone on the verb may indicate the presence of a purpose for which the event has occurred:

(95)   *dr-á-drá*   *tá*   *xàsúù*
    burn-PVG-burn   OBJ   wood
    'he burned wood [for charcoal]'

(96)   *dr-á-drà*   *tá*   *xàsúù*
    burn-PVG-burn   OBJ   wood
    'he burned wood'

Inherently transitive verbs, i.e. verbs that do not require a pronominal object when occurring with a nominal object, code the dative argument without any tonal changes on the verb. The first part of the reduplicated verb keeps the underlying tone, and the last tone is low before the object phrase. Here are examples of low-tone verbs *dà* 'cook' and *bà* 'build':

(97)   *dà-ná-dà*   *tá*   *dàfá*
    cook-DEM-cook   OBJ   food
    'he cooked for him'

(98)   *bà-ná-f-bà*   *tá*   *xgà*
    build-DEM-UP-build   OBJ   house
    'he built him a house'

Here is an example of a high-tone verb:

(99)   *skwá-ná-skwà*
    buy-DEM-buy
    'he bought [it] for him'

(100)   *skwá-skwà*
    buy-buy
    'he bought [it]'

6.2. Pronominal dative arguments

The set of dative pronouns is identical with the set of direct object pronouns except that the third-person singular has to be overtly marked by the form *n* or *na*. The same phonological rules apply to dative pronouns as to direct object pronouns, viz., if the pronoun begins with a vowel, that vowel replaces the last vowel of the verb.

Table 13. Dative pronouns

Person	Singular	Dual	plural
First	*í, í-xà, ɗa,*	*ʉ́ú* (INCL)	*má* (INCL)
			ŋná (EXCL)
Second	*ghà*		*ghúnà*
Third	*n, na*		*xə̀n*

6.3. Verbs whose direct object is recipient

The pronominal objects of the verbs *vlá* 'give' and *mná* 'tell' behave as if they were direct object pronouns in that they have high tone. The pronouns are infixed in the reduplicated form and suffixed in the simple form:

(101)   *mná-mnà*
    tell-tell
    'he said'

    mná-ná-mnà
    tell-DEM-tell
    'he told him'

    mná-ghá-mnà
    tell-2-tell
    'he told you'

    mn-ʉ́'ʉ́-mnà
    tell-1DU-tell
    'he told us'

    mná-má-mnà
    tell-1PL.INCL-tell
    'he told us'

    mná-ŋná-mnà
    tell-1PL.EXCL-tell
    'he told us'

6.4. The two forms of the third-person singular dative pronoun

The third-person singular pronoun *ná* codes the definite, known addressee; the pronoun *n* codes the unspecified addressee:

(102) yàgh-ká   dá   ńgh-ú   dà   sígà   yá
       should not-2SG   PURP   look-SO   PREP   pot   DEM
       ká-'á   mná-ná-tà
       COMP-3SG   tell-DEM-REF
       '"do not look inside the pot," he told him.'

Replacing the form ná to n in the last verb would produce a different meaning:

(103) mná-n-tà
       tell-3-REF
       'he told someone'

When one speaks about a hypothetical dative in a narrative, then the pronoun n rather than ná is used:

(104) pghù   tsá   yá   dzà'á   màrà-n-tá
       libation   DEF   DEM   FUT   show-3-REF
       snà-n-tà-ní   tá   dàdá-xà-ní   ndá   mtá
       know-3-REF-SUBJ-3SG   OBJ   father-PL-3SG   STAT   dead
       dàgà   dá-ní   dá-ní   mà   dá-ní   dá-ní
       PREP   father-3SG   father-3SG   PREP   father-3SG   father-3SG
       mà   dá-ní   xá   gùlú
       PREP   father-3SG   until   Gulu
       'It is the libation that will make him know his dead parents, back to Gulu.'

Similarly with the verb vlá 'give':

(105) vlá-n-vl-í   tá   kóбù
       give-3-give-1SG   OBJ   money
       'I gave money'

(106) vlá-ná-vl-í   tá   kóбù
       give-DEM-give-1SG   OBJ   money
       'I gave him (specific person) money'

The third-person plural dative is coded by the third-person dative singular object marker ná with the verb mná 'say' or n affixed to the verb vlá 'give' and by the third-person plural pronoun xàn preceded by the preposition tá:

(107)   mná-ná-mnà   tá   xə̀n
        tell-DEM-tell   OBJ   3PL
        'he told them'

(108)   vlá-n-vl-íyù   tá   xə̀n   tá   kóɓù
        give-3-give-1SG   OBJ   3PL   OBJ   money
        'I gave them money'

6.5. The functions of the first-person singular dative pronouns

As in the case of the first-person singular direct object pronouns, there are also two forms of first-person singular dative pronouns. The form *ixà* is used if there are no extensions added to the verb, and the form *ɗ* is used if the stem has the marker *i* or *u* or if there are extensions, whether preceding or following the first-person object pronoun:

(109)   mn-íxà-mná   *mn-íɗá-mnà
        say-1SG-say   say-1SG-say
        'he told me'   for 'he told me'

The verb *mbá* 'chase away' may take the first-person pronoun *iɗ* either as a direct object or as dative object. In the first case the tone on the verb is low, and in the second it is high. Since the vowel *i* assumes the tone of the verb, it has high or low tone:

(110)   ɓl-í-ɗí-ɓlá   tá   pìtsákw
        break-AWAY-1SG-break   OBJ   hoe
        'he broke my hoe'

(111)   mb-í-ɗì-f-mbá-xə̀n
        chase-AWAY-1SG-UP-chase-3PL
        'they cured him for me' (*mbá* 'chase away' includes chasing away an illness)

(112)   mb-ì-ɗí-f-mbá-xə̀n
        chase-AWAY-1SG-UP-chase away-3PL
        'they cured me'

The evidence that vowel *i* is a part of the first-person pronoun is provided by the fact that the vowel *i* does not occur with other object pronouns:

(113)   *mbá-ghà-f-mbá-xən*
chase away-2SG-UP-chase away-3PL
'they cured [your wound] for you'

(114)   *mbà-ghá-f-mbá-xən*
chase away-2SG-UP-chase away-3PL
'they cured you'

(115)   zl-í-ɗ-ì-ŋ-wá-zlá   tá   tví
leave-AWAY-1SG-EP-3-PL.IMP-leave   OBJ   road
'allow me . . .' (written sources)

Before the distal goal-oriented extension *ghá*, the first-person pronoun *ɗ*
is followed by the vowel *a* rather than by an epenthetic vowel. This is in
accordance with the general rule regarding all locative extensions:

(116)   *tf-í-ɗ-á-ghá-tfá-lú*   tá   wì
spit-AWAY-1SG-PVG-D:PVG-spit-UH   OBJ   mouth
for 'I was blessed'

(117)   **tf-í-ɗí-ghá-tfá-lú*   tá   wì
spit-AWAY-1SG-D:PVG-spit-UH   OBJ   mouth
'I was blessed'

Compare the verb *zlá* 'release'. Without any extension the first-person
singular is *ixa*; with an extension, e.g. inverse *s*, the first-person singular
pronoun is *id*:

(118)   *zl-íxà-zlá*
release-1SG-release
'he released me' (for my benefit)

(119)   *zl-í-ɗí-s-zlà*
release-AWAY-1SG-INV-release
'he released me' (to my detriment)

The vowels of the verbal forms are *u* or *i* for all persons. The
vowels depend on the point of view coding on the stem:

(120)   *kà*   *dz-ù-gù-dú-ɗú-s-dzá*   *kághá*   *ná . . .*
SEQ   go-SO-INN-ALL-1SG-INV-go   2SG   COMP
'If you come there for me, then . . .'

(121) *kà*   *dz-ù-gù-dú-nú-s-dzá*   *kághá*
       SEQ   go-SO-INN-ALL-DEM-INV-go   2SG
       'if you come for him'

(122) *kà*   *dz-ù-gù-dú-ghú-s-dzá*   *tsátsí*
       SEQ   go-SO-INN-ALL-2SG-INV-go   3SG
       'if he comes for you'

The imperative function corresponding to "give me!" has been lexicalized through the form *yàghá*, which incorporates both the order and the first-person dative:

(123) *yàghá*   *tá*   *índà*   *xùzlà-xà-ɗá*   *démdém*   *ká-'á*
       give me   OBJ   all   good-PL-1SG   all   COMP-3SG
       ' "return all my things," he said'

6.6. Dative pronouns with simple transitive verbs

If the verb can take both direct and dative objects, the dative function of the object is coded by high tone on the verb and low tone on the pronoun. The verbs that have inherently high tone keep the high tone in constructions with dative arguments. Here is a paradigm with all the dative object pronouns. The verb *ɓlá* 'break' occurs with the extension *p* 'OUT' in all persons except first singular, a fact for which we have no explanation:

(124) *ɓlá-ghà-p-ɓlá*
       break-2SG-OUT-break
       'he broke it for you'

(125) *ɓlí-xà-ɓlá*
       break-1SG-break
       'he broke it for me'

(126) *ɓlá-nà-p-ɓlá*
       break-DEM-OUT-break
       'he broke it for him'

(127) *ɓlá-ŋnà-p-ɓlá*
       break-1PL.EXCL-OUT-break
       'he broke it for us'

(128)   *ɓlá-ghùnà-p-ɓlá*
        break-2PL-OUT-break
        'he broke it for you'

Compare the direct object form:

(129)   *ɓlà-ná-p-ɓlà*
        break-DEM-OUT-break
        'he broke him'

To a verb with a dative object pronoun a nominal direct object is added in the usual way, i.e. with the preposition *tá*. The dative function may imply benefactive as well as malefactive effect on the argument:

(130)   *lá-wá-lá*   *dà*   *ghàn-á*   *xàɗík*   *dá*   *kás-ìɗí-k*
        go-PL.IMP-go PREP   head-GEN   world   PURP   take:PL-1SG-INN
        tá   *mndú-xà*
        OBJ   man-PL
        'go into the world and bring me people . . .'

(131)   *dzà'á*   *y-í-gì-ɗí-p-yá-kúnì*
        FUT   give birth-EP-INN-AWAY-1SG-OUT-give birth-2PL
        tá   *xùzlà-xà-ɗá*
        OBJ   good-PL-1SG
        'you are going to take away my goods'

Verbs that have inherently low tone change the last tone to high to mark the dative argument, e.g. *zlə̀mbà* 'stone':

(132)   *zlə̀mbá-nà-zlə̀mbá*
        stone-DEM-stone
        'he stoned it for him'

        zlə̀mbá-ghà-zlə̀mbá
        stone-2SG-stone
        'he stoned it for you'

(133)   *kà*   *gúná-nà-f-tá*   *sígà*
        SEQ   open-DEM-UP-REF   pot
        'and he opened the pot for him'

6.7. Dative coding indirect affectedness

The dative form of the verb codes the indirect affectedness of an argument, i.e. a situation in which A acts on B and affects C. Argument B may be a body part or any other noun:

(134) *ɓl-í-dî-p-ɓlá*   *tá*   *dzvú*
break-AWAY-1SG-OUT-break   OBJ   hand
'he broke my hand'

(135) *ɓlá-ghà-p-ɓlá*   *tá*   *dzvú*
break-2SG-OUT-break   OBJ   hand
'he broke your hand'

(136) *ɓlá-ghà-p-ɓlá*   *tá*   *ùdzú*
break-2SG-OUT-break   OBJ   stick
'he broke your stick'

Compare direct affectedness coded by the direct object form of the verb:

(137) *ɓlà-ghá-p-ɓlà*
break-2SG-OUT-break
'he broke you'

6.8. Dative pronoun and extensions

If the verb has only one extension, dative pronouns, just like direct object pronouns, precede this extension:

(138) *sá-ghà*   *ùvá*   *xvá-nà-ŋ-tà*   *ùvá*   *tá*   *xvá*
arrive-D:PVG   cat   work-DEM-TENT-REF   cat   OBJ   work
kítìkw
little
'After Cat came and worked a little for him'

(139) *tfá-ná-ghá-tfá-lú*   *tá*   *wì*
spit-DEM-D:PVG-spit-UH   OBJ   mouth
'he was blessed'

(140) *ndá   sná-ká   rí   sárák,   hlƏv-í-dí-p-hlƏvá*
STAT   know-2SG   Q   club   hit.PL-AWAY-1SG-OUT-hit.PL
tá   índà   m̀ndú-xà
OBJ   all   man-PL
'Do you understand, stick? Hit everybody for me!'

If the verb has more than one extension, the dative pronoun follows all extensions except for the last one (on the order of extensions see the Chapter 10, section 4):

(141) *xgà-n-tì-í   tá   rvér   wà   kà*
call-3-REF:SUBJ-1SG   OBJ   lion   NEG   SEQ
dz-ù-gù-dú-ɗú-s-dzá   kághá   ná
go-SO-INN-ALL-1SG-INV-go   2SG   DEM
xgà-n-tì-í   tá   rvér   wà   ká'-á
call-3-REF-1SG   OBJ   lion   NEG   COMP-3SG
' "I will not invite Lion. If you come there for me, I will not invite Lion," he said.'

6.9. Other functions of the dative form of the verb

The dative form of the verb, i.e. the high tone on the last syllable, does not necessarily imply the presence of a dative or benefactive argument. With the verb *ǹgh* 'see', the high tone changes the meaning to "visit"; hence it adds the feature [control] to the function of the subject:

(142) *ǹghá-ghá-ǹgh-í   tà   lúmà*
see-2SG-see-1SG   PREP   market
'I visited you at the market'

ǹghà-ghá-ǹgh-í
see-2SG-see-1SG
'I saw you at the market'

6.10. Coding of dative and benefactive through prepositions

If the dative argument is nominal, it is coded by the object-marking preposition *tá*, as illustrated by the example quoted earlier:

(143) vlá-n-vl-íyù   tá   kùzún   tá   gù-xà
      give-3-give-1SG OBJ   fresh leaves OBJ   goat-PL
      'I gave him leaves for the goats'

The benefactive argument may be coded by the preposition ngá 'for'. The verb does not code the presence of the prepositional phrase with ngá:

(144) skwá-skw-í   tá   kwà   tá   ghən   ngá   múk
      buy-buy-1SG OBJ   calabash PREP head   FOR   girl
      má-ghá
      mother-2SG
      'I bought a head calabash for your sister' (mákwà 'girl', múk does not occur alone)

The pronominal dative may also be coded through the preposition ngá. Pronouns following the preposition ngá are selected from the possessive set:

(145) klá-gá-ghà   ngá-ghá
      take-INN-D:PVG   FOR-2SG
      'he brought for you'

(146) klà-gá-ghà-klà   ngá-ghá
      take-INN-D:PVG-take FOR-2SG
      'he brought it for you'

(147) tà   dá   skw-à   z-áy   ngá-dá
      IMPF cook thing-GEN eat-PO   FOR-1SG
      'she is cooking something for me to eat'

7. Co-referentiality of arguments

7.1. Co-referentiality of the subject and the direct object

The co-referentiality of the subject and the direct object is coded by use of the word vghá 'body' as the object. Such a construction codes the subject's having control over the event and also being affected by the event. The notion of subject control is a crucial function of the object coded by vghá. The evidence that both of these semantic properties are coded by the construction with vghá is provided by the fact that when the same verb occurs without vghá, the clause does not imply control:

(148) *súɗà-súɗ-í*   *tá*   *vghá*
       undress-undress-1SG   OBJ   body
       'I undressed'

(149) *dzà'á*   *mbá-mb-áf-mbá-mú*   *tá*   *vghá-*mù*
       FUT   cure-cure-UP-cure-1PL   OBJ   body-1PL
       'we will recover'

(150) *mb-áf-mbà*   *tá*   *vghá-ní*
       recover-UP-recover   OBJ   body-3SG
       'he cured himself'

(151) *mbá-f-mbà*
       recover-UP-recover
       'he recovered' (no implication of his control over the event)

(152) *mb-áf-mbá-mú*
       recover-UP-recover-1PL
       'we recovered'

7.2. Co-referentiality of the subject and the dative

The co-referentiality of the subject and the is coded by the preposition *ngá* 'FOR' followed by pronouns coding the features person and number of the subject:

(153) *drá-drà*   *ngá*   *ní*
       burn-burn   FOR   3SG
       'he burned it for himself'

The disjoint reference between the third-person singular subject and the dative argument is coded through the addition of the dative pronoun *ná* to the verb. The prepositional phrase with the third-person dative in such cases is optional, but if it occurs, its pronoun is co-referential with the dative pronoun affixed to the verb and not with the subject pronoun:

(154) *drá-ná-drà*   (*ngá-ní*)
       burn-DEM-burn   FOR-3SG
       'he burned it for him'

7.3. Co-referentiality of the subject and the locative

The co-referentiality of the subject and the locative is coded by the form *vghá* 'body' preceded by a locative preposition:

(155) tà   tsírá-kú   tà   vghá   kà   bgà   tá
       IMPF   defecate-ABS PREP   body   SEQ   because   COM
       xàɗú   ntfáŋ   ngá   nú'wá-f-tá   m̀ndàrá-ní wà
       lack   glue   FOR   close-UP-REF   anus-3SG   NEG
       'he defecated on himself because there was no glue to close his
       anus'

(156) ngá   sá-bà   tsá   m̀ndú yá   jíbìl   ndá
       NORM   go-OUT   DEM   man   DEM   outdoors   ASSC
       lgùt-á   ngrá   tà   vghá-ní
       cloth-GEN   black   PREP   body-3SG
       'The man should come out wearing black clothes.'

8. Coding of the reciprocal function

The reciprocal function, viz. A acting on B and B acting on A, is marked by the verb followed by the plural subject and the noun *vghá* 'body' preceded by the object marker *tá*. The form *vghá* is not followed by a possessive pronoun:

(157) dzà'á   gùy-éy-mú   tá   vghá   màxtsím
       FUT   meet-PO-1PL   OBJ   body   tomorrow
       'will we meet tomorrow?'

(158) dzà'á   gùy-éy-kúní   tá   vghá   màxtsím
       FUT   meet-PO-2PL   OBJ   body   tomorrow
       'will you meet [each other] tomorrow?'

(159) *dzà'á gùy-éy-mú   tá   vghá-mú   màxtsím
       FUT   meet-PO-1PL   OBJ   body-1PL   tomorrow
       for 'will we meet [each other] tomorrow?'

The reciprocal function coding by *vghá* came about through the grammaticalization of the exclusiveness of the event, i.e. its restriction to a group of plural participants. In the following example there is not what is generally assumed to be a reciprocal function, viz. A acting on B and B

acting on A, and yet the marker *vghá* is used, because it confines the activity to just the subject mentioned in the clause:

(160) *tá*   *tà*   *tsk-áy-lú*   *tá*   *vghá*   *tà*
     COM   IMPF gather-PO-UH   OBJ   body   PREP
     hldày   *mántsá*   *ghàlyá*   *rà*
     often   like   once   Q
     'Do people gather as they used to?'

Once exclusiveness has been established, in subsequent sentences the marker *vghá* does not have to be repeated with the same verb. Thus the preceding example is followed in the conversation by the following sentences:

(161) *tà*   *tsk-áy-xən*   *dé* ← *dái* (Hau.)
     IMPF   gather-PO-3PL   indeed
     'They gather indeed.'

(162) *tà*   *tsk-áy-xən*   *wà*
     IMPF   gather-PO-3PL   NEG
     'They gather, don't they?'

In purpose clauses the reciprocal marker *vghá* is not preceded by the object marker *tá*. It is followed by possessive pronouns:

(163) *sá-ghà-sá-xən*   *dá*   *kátá*   *vghá-tán*
     arrive-D:PVG-arrive-3PL   PURP   help   body-3PL
     'they came to help each other'

9. The applicative extension *vá*

The extension *vá* follows the verb stem with the vowel a. The verb before this extension has a low tone if the event is directed toward the subject, and it retains its underlying tone if the event is directed toward an object.

(164) *zlghà-vá-zlgh-í*   *tá*   *nìslá-dá*
     take-APPL-take-1SG   OBJ   gift-1SG
     'I took my gift' (for myself)

The applicative extension precedes locative extensions:

(165)   *dgà-vá-p-dgá-xɔ̀n*
        divide-APPL-OUT-divide-3PL
        'they divided themselves'

The function of the applicative extension is to code the event's occurring for the benefit of the subject. The evidence for this hypothesis is provided by the fact that the extension cannot be used if the event is for the benefit of persons other than the subject:

(166)   *zlghà-vá-zlgh-í*   *tá*   *nìslá-ní*
        take-APPL-take-1SG   OBJ   gift-3SG
        'I took his gift' (for myself)

Cf.:
(167)   *zlghà-f-zlgh-í*   *tá*   *nìslá-ní*
        take-UP-take-1SG   OBJ   gift-3SG
        'I took his gift'

(168)   *búkwá-vá-búkw-í*   *tá*   *lgùt*
        cover-APPL-cover-1SG   OBJ   cloth
        'I covered myself with a cloth'

The extension *vá* cannot be used if the beneficiary is other than the subject:

(169)   **zl-í-dí-n-vá-zlá*   *tá*   *pìtsákw*
        leave-AWAY-1SG-3-APPL-leave   OBJ   hoe
        for 'he left me a hoe' (cf. ex. (178) below)

With verbs *zá* 'eat' and *sà* 'drink' the extension codes selfish eating and drinking:

(170)   *ndà-vá-ndà*
        swallow-APPL-swallow
        'he swallowed everything' (in a selfish way)

(171)   *zá-vá-zá*   *tá*   *dàfá*
        eat-APPL-eat   OBJ   food
        'he ate all the food'

(172)   *sà-vá-s-íyù*   *tá*   *ghzú*
        drink-APPL-drink-1SG   OBJ   bilbil
        'I drank all the beer'

When the extension *vá* is added to the verb *pghá* 'pour', the meaning is equivalent to "pour into oneself, drink":

(173) *pghá-vá-pgh-í*   *tá*   *ghzú*
       pour-APPL-pour-1SG   OBJ   bilbil
       'I drank a lot of beer'

Cf.:

(174) *pgh-ì-n-pgh-í*   *tá*   *ghzú*
       pour-AWAY-3-pour-1SG   OBJ   bilbil
       'I poured the beer'

The applicative extension with intransitive verbs codes a limitation of the event to the subject only or to a certain time or effort:

(175) *ndzdà-vá-tà*   *zíngá . . .*
       spend time-APPL-REF:SUBJ   Zinga
       'After Zinga has spent some time, . . .'

(176) *ndzdà-vá-tà-ɗá*   *kítìkw . . .*
       last-APPL-REF:SUBJ-1SG   small
       'After spending some time, I . . .'

The verb *zlá* 'leave' requires the additional argument marker *ná* before the extension *vá*:

(177) *kà*   *ɗvá-úgh-tá*   *mákwà*   *tá*   *zváxw*
       SEQ   like-SO-REF   girl   OBJ   bat
       kà   *zlá-ná-vá-tá*   *kúkù*
       SEQ   leave-DEM-APPL-REF   pigeon
       'The girl chose the bat and left the pigeon'

If the beneficiary is other than the subject, a dative construction is used:

(178) *zl-í-dì-n-zlá*   *tá*   *pìtsákw*
       leave-AWAY-1SG-3-leave   OBJ   hoe
       'he left me a hoe'

9.1. Partial affectedness of the subject

The function of the extension *vá* is similar to the source-oriented marker *ú*. Both can occur with transitive verbs. The extension *vá* in such cases

codes partial affectedness of the subject, while the marker *ú* codes complete affectedness of the subject:

(179)   *ɓlá-ɓlà*
        break-break
        'he broke it'

(180)   *ɓlà-vá-p-ɓlà*
        break-APPL-OUT-break
        'this thing broke into two'

(181)   *ɓl-ú-ɓlà*
        break-SO-break
        'it broke'

(182)   *ɓl-ú-ɓlá*   *tsá*   *fúyá*   *rì*
        break-SO-break   DEF   tree   Q
        àrí ɓlà-vá-p-ndá-ɓlá
        or break-APPL-OUT-ASSC-break
        'did this tree break completely or did it break partially?'

The difference between the affected argument coding through *vá* and the applicative coding is in the tone of the verb. If the event is performed for the benefit of the subject, the verb has a high tone. If the subject is affected only, the verb has a low tone:

(183)   *ɓlá-vá-ɓlá*
        break-APPL-break
        'he broke it for himself'

(184)   *drá-drà*
        burn-burn
        'he burned it'

(185)   *dr-ú-drà*
        burn-SO-burn
        'it burned'

(186)   *drá-vá-drá*
        burn-APPL-burn
        'he burned it for himself'

(187)   *drà-vá-drà*
        burn-APPL-burn
        'this thing burned a bit'

The unmarked argument of the verb *gìgìɗ* 'shake' is the controlling agent:

(188)   *gìgìɗà-n-gìgìɗá*   *tá*   *fú*
        shake-3-shake   OBJ   tree
        'he shook the tree'

(189)   *gìgìɗà-n-gìgìɗá*   *fú*   *tá*   *hlxwá-xà-ní*
        shake-3-shake   tree   OBJ   leaf-PL-3SG
        'the tree lost its leaves'

The verb must have the applicative suffix *vá* if the subject is affected:

(190)   *gìgìɗà-vá-gìgìɗá*   *fú*
        shake-APPL-shake   tree
        'the tree shook'

(191)   **gìgìɗà-gìgìɗá*   *fú*
        shake-shake   tree
        for 'the tree shook'

Similarly with the verb *kɗá* 'end':

(192)   *xàɗík   kùl   xàɗú   kɗà-vá-k-tà-ní*
        earth   REL.NEG   NEG   end-APPL-INN-REF:SUBJ-3SG
        'the world that does not end'

The extension *vá* can be added to the verbal stem ending in *u* to indicate the partial affectedness of the subject:

(193)   *dr-ú-v-drà*   *tá*   *vghà-ní*
        burn-SO-APPL-burn   OBJ   body-3SG
        'he burned his body'

9.2. The applicative extension and the negative

If an inherently high-tone transitive verb with the applicative extension is followed by one argument in the negative clause and the verb has high

tone, the argument is construed as the object. If the verb has low tone, the argument is construed as subject, albeit a non-controlling one. The role of the extension *vá* is thus to code orientation toward the sole argument, the subject, whatever its semantic role might be. Moreover, the extension codes the non-affectedness of that argument. The extension *vá* in negative clauses is thus in contrast with the extension *ku*, which codes the affectedness of the object:

(194)   *zà-vá   ghùvázú   wà*
      eat-APPL   pig   NEG
      'pig is not edible', 'one does not eat pork'

(195)   *zá-vá   ghùvázú   wà*
      eat-APPL   pig   NEG
      'the pig did not eat all'

(196)   *sà-vá   ná   ná   ìmí   ná   wà*
      drink-APPL   DEM   DEM   water   DEM   NEG
      'this water is not drinkable'

(197)   *zà-vá   yá   hlú'wí yá   wà*
      eat-APPL   DEM   meat   DEM   NEG
      'this meat is not edible'
Cf.:
(198)   *tà   zá-kú   yá   hlú'wí yá*
      IMPF   eat-ABS   DEM   meat   DEM
      'this meat is edible'

The inherently low-tone verbs stay low in both of these environments:

(199)   *sà-vá   à   ìmá   á   wà*
      eat-APPL   NEG   water   DEM   NEG
      'the water is not drinkable'

(200)   *sà-vá   ghùvázú   wà*
      eat-APPL   pig   NEG
      'the pig did not drink all'

The extension *vá* cannot be used with a negative clause containing both an agent and an object:

(201) klá-gá-*vá-ghà   à   tá   hlìhlík wà
       take-INN-D:PVG   NBG   OBJ   egg   NBG
       'he did not bring eggs'

(202) tà   t-áy-lú   tá   dàlì   mà   xìlbá
       IMPF   fetch-PO-UH   OBJ   sauce   PREP   pot
       'the sauce is served in the *xilba* pot'

The applicative extension may be followed by the affected marker *u*. In such constructions, the applicative extension indicates a diminutive action, and the marker codes affectedness of the subject:

(203) phlà-vá-úgh-phlá   sígà
       break-APPL-SO-break   pot
       'the pot broke a little bit'

10. The inverse extension *s*

10.1. The form of the inverse extension

The inverse extension is marked by the consonant *s* and either the affected subject marker *u* or the movement-away marker *i* followed by the definite object marker *n*. The resulting underlying structure in the perfective is thus: Verb-*i/u-n-s*-Verb. Since all verbs begin with a consonant, a disallowed segmental sequence results: *n-s*-C. The movement-away marker *i* or the source-oriented marker *u* provides epenthetic vowels for syllabification between *n* and *s*:

(204) más-ú-n-ú-s-másà   tá   rdí   tà   wùbìsím
       apply-SO-3-EP-INV-apply   OBJ   ointment   PREP   mouth
       'he₁ put the ointment on his₂ mouth'

(205) más-í-n-í-s-másà   tá   rdí   tà   wùbìsím
       apply-AWAY-3-EP-INV-apply   OBJ   ointment   PREP   mouth
       'he₁ wiped off the ointment from his₂ mouth'

The coding of the pronominal object as benefactive rather than direct is accomplished through the following tonal changes: With monosyllabic verbs the tone on the verb is low for the direct object but high for the benefactive. The tone on the epenthetic vowel preceding the marker -*s* is high for the direct object and low for the benefactive:

(206) *dz-ù-ɗú-s-dzà*
       hit-SO-1SG-INV-hit
       'he hit me once'

(207) *dz-ú-ɗù-s-dzá*
       hit-SO-1SG-INV-hit
       'he hit for me once'

(208) *dz-ù-ɗ-dzà*
       hit-SO-1SG-hit
       'he hit me'

(209) *dz-ù-ghú-s-dzà*
       hit-SO-2SG-INV-hit
       'he slapped you once'

(210) *dz-ú-ghù-s-dzá*
       hit-SO-2SG-INV-hit
       'he slapped for you'

With polysyllabic verbs, when the tone of the second syllable of the verb is fixed, the distinction between direct and benefactive object is coded by the tone on the epenthetic vowel preceding *s*: high for the direct object, and low for the benefactive function:

(211) *hlìngwí-n-ís-hlìngwá*
       push-3-INV-push
       'he pushed him'

(212) *hlìngw-í-n-ì-s-hlìngwá*
       push-AWAY-3-INV-push
       'he pushed it for him'

(213) *hlìngw-í-ɗí-s-hlìngwá*
       push-AWAY-1SG-INV-push
       'he pushed me'
Cf.:
(214) *hlìngw-í-ɗì-s-hlìngwá*
       push-AWAY-1SG-INV-push
       'he pushed for me'

10.2. The functions of the inverse extension

The extension *s* indicates that the pronominal object that follows the verb has a function different from the one that would be assigned to the pronoun by the unmarked form of the verb. Thus, the arguments occurring with the inverse extension do not all have the same relationship to the verb, but rather, with different verbs they have different relationships. Accordingly, the description that follows lists some of the functions of the inverse extension observed in texts and in elicited data. The markers *u* or *i* that are required by the inverse extension are added to the verb or they precede the object pronoun suffixed to the verb.

With intransitive verbs the object is not the causee but rather indirectly affected, i.e., the action of the subject indirectly affects the object:

(215)   *xwáyá-gù-dú-ɗú-s-xwáyá*
        run-INN-ALL-1SG-run
        'it escaped from me', 'it ran out on me' (e.g. a goat taken to the market)

Verbs that take inanimate objects, such as *sà* 'drink' and *zá* 'eat', can have pronominal objects added if the verbs have the inverse extension. Such constructions are the causative constructions for transitive verbs. The pronoun marked by the extension *s* is the causee of the event:

(216)   *kà   s-ù-ɗú-s-tá-xən*
        SEQ   drink-SO-1SG-INV-REF-3PL
        'they made me drink'

(217)   *z-ú-m-ú-s-zá-xən*
        eat-SO-1PL.INCL-SO-INV-eat-3PL
        'they made us eat'

(218)   *s-ù-ghú-s-s-í*
        drink-SO-2SG-INV-drink-1SG
        'I made you drink'

One cannot add a human object pronoun to such verbs without the inverse extension:

(219)   **sà-ghá-s-í*
        drink-2SG-drink-1SG
        for 'I made you drink'

The object of the verb with the inverse extension is coded by the preposition *tá*:

(220)   kà   s-ù-ɗú-s-tá-xən   tá   ghwání
        SEQ   drink-SO-1SG-INV-REF-3PL   OBJ   medicine
        'they made me drink the medicine'

If the causee is a full noun or an ndependent pronoun, the verb has to have a pronominal suffix coding the features person and number of the object noun phrase. The tone before the pronominal suffix coding the instigator of the event, the causer, is low rather than high, as is usually the case before the controlling subjects:

(221)   s-ù-ŋn-ú-s-sà-xən   tá   ìmí   tá
        drink-SO-1PL.EXCL-INV-drink-3PL   OBJ   water   OBJ
        áŋní   ndá   zwán   ngá   má-ɗá
        1PL.EXCL   ASSC   child   FOR   mother-1SG
        'they made me and a friend of mine [lit. 'my brother'] drink water'

(222)   s-ù-mú-s-sà-xən   tá   ìmí   tá
        drink-SO-1PL.INCL-INV-drink-3PL   OBJ   water   FOR
        ámú   ndá   kághá
        1PL.INCL   ASSC   2SG
        'they made us drink water'

If the third-person singular object pronoun *n* is used, the inverse marker *s* gets deleted when followed by another continuant:

(223)   s-ù-n-s-í   tá   skwì
        drink-SO-3-drink-1SG   OBJ   thing
        'I made him drink'

(224)   s-ù-ghú-s-s-íyù   tá   ìmí
        drink-SO-2SG-INV-drink-1SG   OBJ   water
        'I made you drink water'

The verb *hlìngwá* 'get pushed around' is inherently an intransitive verb. Its unmarked form contains the source-oriented marker *u*:

(225)   hlìng-ú-hlìngwà
        push around-SO-push around
        'that thing got pushed out'

If another argument is to be added, the verb requires the movement-away marker *í* followed by appropriate pronouns: *ď* for the first singular, *gh* for the second, and *n* for the third person. The addition of a new argument requires high tone on the verb:

(226)   *hlìngw-í-ď-hlìngwá*
        push-AWAY-1SG-push
        'he pushed me'

(227)   *hlìngw-í-gh-hlìngwá*
        push-away-2-push
        'he pushed you'

(228)   *hlìngw-í-n-hlìngwá*
        push-AWAY-3-push
        'he pushed him'

(229)   *hlìngw-í-n-hlìngwá*   *tá*   *mbítsá*
        push-AWAY-3-push   OBJ   Mbitsa
        'he pushed Mbitsa'

Addition of the inverse extension *s* changes the role of the pronominal object from direct object to benefactive:

(230)   *hlìngw-í-n-ìs-hlìngwá*
        push-AWAY-3-INV-push
        'he pushed him for him'

(231)   *hlìngw-í-ďì-s-hlìngwá*
        push-AWAY-1SG-INV-push
        'he pushed for me'

Consider now the verb *dzà'á* 'go', which can have object pronouns added only if it is has the inverse marker *s*:

(232) *xgà-n-tì-í*   *tá*   *rvér*   *wà*   *kà*
       call-3-REF-1SG   OBJ   lion   NEG   COND
       dz-ù-gù-dú-dú-s-dzá   *kághá*   *ná*
       go-SO-INN-ALL-1SG-INV-go   2SG   COMP
       xgà-n-tì-í   *tá*   *rvér*   *wò*   *ká-'á*
       call-3-REF-1SG   OBJ   lion   NEG   COMP-3SG
       ' "I will not invite Lion. If you come there for me, I will not invite
       Lion," he said.'

The inverse extension also codes the indirect affectedness of the object
for verbs whose object pronouns would otherwise be interpreted as being
directly affected:

(233) *ld-í-ghì-s-ldá*   *tá*   *xgà*
       destroy-AWAY-2SG-INV-destroy   OBJ   house
       'he destroyed your house'

The inverse function can alter the lexical meaning of the verb. When
the inverse extension is added to the verb *dzá* 'kill', the extension changes
the meaning to 'hit':

(234) *dz-ù-mú-s-dzá-xàn*
       hit-SO-1PL.INCL-INV-hit-3PL
       'they hit us'

The use of the unmarked form of the verb would give a somewhat im-
probable utterance:

(235) *dzà-má-dzá-xàn*
       hit-1PL.INCL-hit-3PL
       'they killed us'

With the verb *mná* 'say', the extension *s* does not change the function
of the preceding subject, but rather changes the function of the unmarked
object. The verb does not mean "tell something" but rather "tell about
something":

(236) *mn-ú-dú-s-mnà*   cf.   *mn-íxà-mná*   *kìtìkw*
       tell-SO-1SG-INV-tell   tell-1SG-tell   a little
       'tell me about it'   'tell me something'

(237) mn-ú-n-ús-mnà   tá   púrkútú ndzúm
       tell-SO-3-INV-tell   OBJ   story
       tá   ngwáyá
       OBJ   Ngwaya
       'he told Ngwaya part of a story'

Similarly with the verbs *vlá* 'to give', the inverse extension indicates that the recipient has received only some of the objects mentioned:

(238) vl-ú-ú-s-vlá   tá   kóbù
       give-SO-1DU-INV-give   OBJ   money
       'he gave us (DU) some money'
Cf.:
(239) vl-ú-ú-vlá   tá   kóbù
       give-SO-DU-give   OBJ   money
       'he gave us (DU) money' (underspecified amount)

The use of the inverse extension does not prevent the coding of the distinction between benefactive and direct object through tonal means. High tone on the third-person marker *n* codes dative/benefactive function, low tone codes direct object:

(240) ghùn-í-n-í-s-ghùnà
       send-AWAY-3-EP-INV-send
       'he sent him away for good'

(241) ghùn-í-n-ì-s-ghùná
       send-AWAY-3-EP-INV-send
       'he sent somebody for him'

In sum, the extension *s* alters the relationship between verbs and arguments, without explicitly coding which characteristic is involved.

11. The system of partitive extensions

Three extensions cannot occur with each other: *á*, *ŋ*, and *ghú*. Since there is nothing with respect to their phonological structure that would prevent the cooccurrence, the constraint indicates that the functions may belong to the same semantic subdomain, where they are mutually exclusive. We propose that the extension *ŋ* codes an attempt at accomplishing the event, the extension *á* codes partial effect on the object or the benefit of subject,

and the extension *ghú* codes that only part of the whole was affected or separated from the whole.

12. The partitive extension *á*

The extension *á* has the same phonological form as the plural marker *á*, but it is added to the verb theme, i.e. the verb followed by its thematic vowel, rather than inserted after the first consonant of the verb, as is the case with the plural marker *á*. With an affected object the extension *á* indicates that only part of the object is affected. Evidence for the proposed value of the extension is provided by its contrast with the unmarked form of the verb. The extension behaves phonologically like a direct object in that the verb that precedes it has low tone:

(242) *xnà-á-xnà*   *tá*   *hlú'wí*   *ndá*   *mángá*
       cut-PART-cut   OBJ   meat   ASSC   knife
       'he cut a piece of meat with a knife'
Cf.:
(243) *xná-xná*   *mbítsá*   *ndá*   *mángá*
       cut-cut   Mbitsa   ASSC   knife
       'Mbitsa slaughtered it with a knife'

If the verb is reduplicated for plural coding, the extension *á* is added after the first reduplicated theme:

(244) *ghwá-á-ghwà-ná-f-ghwá-ghwá*   *mbítsá*
       cut-PART-cut-DEM-UP-cut-cut   Mbitsa
       'Mbitsa slaughtered some of them'

With the plural object, the extension indicates that only some members of the plural set are affected, as in (244). With the singular object, the extension indicates that the event applies to only part of the object:

(245) *ndzdà-vá-tà-dá*   *kítìkw* *mándá*
       last-APPL-REF:SUBJ-1SG   small   after
       sà-á-tà-dá   *t-ím-á*   *tsá*
       drink-PART-REF:SUBJ-1SG   OBJ-water-GEN   DEF
       ghwání *yá* *kà* *vníx-í*   *tá*   *vníxí*
       medicine DEM SEQ vomit-1SG   OBJ   vomit
       'Some time after I drank some water of this remedy, I vomited'

Additional evidence for the partitive function of *á* is provided by the fact that the extension cannot be used with the adverb *démdém* 'all', because it would result in internal contradiction:

(246) *sà-á-sà*   *t-ímì*   **démdém*
       drink-PART-drink   OBJ-water   all
       'he drank some water'

The partitive extension indicates that only part of the object is affected:

(247) *mbàɗ* *ká*   *pákáwá ghúvì* *kà*   *klà-á-tá*   *vàrà*
       then   COMP   hyena   SEQ   take-PART-REF   beans
       'and Hyena took some beans'

13. Locative arguments

13.1. Prepositions dá and dà

The term *locative argument* refers to arguments of verbs of movement. These arguments are coded by the prepositions *dá* or *dà*. The preposition with the high tone, *dá*, is used when the following noun is a place name or another inherent locative. The form with the low tone, *dà*, is used when the following noun is not a place name or an inherent locative:

(248) *lá-xà-ɗá*   *dá*   *xdí . . .*
       go-DOWN-1SG   PREP   Hdi
       'Having gone to Hdi I . . .'

(249) *dàgà*   *rvérè,*   *dàgà*   *gwì'yán*   *kà*
       CONJ (Hau.)   lion   CONJ (Hau.)   elephant   SEQ
       dɗà-dá-tá-xàn   *dà*   *vú*   *mà*   *xàdík*
       fall-ALL-REF-3PL   PREP   fire   PREP   ground
       'Lion and Elephant fell into the fire in the ground.' (Instead of *dágà* the associative preposition *ndá* can be used.)

Unlike in many other Chadic languages, human and animate locatives are not marked by any special means. They align with other nouns, but not with toponyms, in that they are preceded by low tone *dà*:

(250) *kà*   *lá-ghá-tsí*   *dà*   *ùvá*
SEQ   go-D:PVG-3SG   PREP   cat
'and he went to Cat.'

In the discussion that follows (but not in the examples) the two variants of the preposition are represented by the toneless form *da*.

The preposition *da* codes movement to or from a place. The distinction of the direction of movement is coded by the inherent properties of verbs of movement, which have the direction as a part of their meaning. The verb *lá* means "to go to" and the verb *sá* means "to arrive". The spatial orientation of the goal is coded by locative extensions added to the verb. In the following example the verb *lá* 'go to' is followed by the extension *f* indicating movement up:

(251) *tà*   *xúlá*   *tsá*   *mántsá*   *kà*   *lá-f-í*   *dá*
PREP   back   DEF   then   SEQ   go-UP-1SG   PREP
mókólò
Mokolo
'Afterwards I went to Mokolo.'

If the verb is inherently non-directional, e.g. *xwáyá* 'run, escape', the directionality is coded by use of a directional verb:

(252) *mbàɗ*   *ká-'á*   *kà*   *xwáyá-úgh-tà*   *lá-ghú*
then   COMP-3SG   SEQ   run-SO-REF   go-D:SO
dà   *zwán-ì*
PREP   child-PL
'Then he fled and he went to his children.' (The high tone on *zwán* indicates that the children are not referential, i.e. mentioned before in the clause.)

(253) *bàɗú*   *pghù*   *dzà'á*   *hlíʼyá-f-hlíʼyá*   *màràkw*   *kà*
day   initiation   FUT   get up-UP-get up   woman   SEQ
lá-ugh-í   *dà*   *ládá-ní*
go-SO-REF   PREP   woman's family-3SG
'On the day of the initiation the wife will get up and go to her parents.'

Another means of coding the directionality of movement is through the use of extensions, more specifically the distal extension *gh* followed by either the source-oriented marker *u* (coding the direction from) or the point of view of goal marker *a* (coding the direction to). In the following

example the distal cum source-oriented extension *ghú* follows the non-directional verb *klá* 'take'.

(254) *tà   xúlá   tsá   mántsá   kà   d̃áwà-ú-tá   kúkù*
       PREP   back   DEF   that   SEQ   ask-SO-REF   pigeon
       tá   índà   xùzlà-xà-ní   klá-ghú-tsí   dà   tsì
       OBJ   all   good-PL-3SG   take-D:SO-3SG from   3SG
       'Afterwards the pigeon asked for all his things that the bat had
       taken from him.'

The locative argument of the verb *skwá* 'buy' is the source rather than
the goal:

(255) *skwá-skwà   tá   hlà   dà   mbítsá*
       buy-buy   OBJ   cow   PREP   Mbitsa
       'he bought a cow from Mbitsa'

No locative preposition is used when the word *dzághà* 'home' is the
goal. The word *dzághà* seems to be used only when the home in question
belongs to the subject:

(256) *kà   wà-dá-p   tá   tsá   vàrà   yá   dzághà*
       SEQ   take.PL-ALL-OUT   OBJ   DEF   beans   DEM   home
       'they brought the beans home'

The preposition *da* can also code locative arguments of non-movement
verbs, such as the verb 'to look':

(257) *yàgh-ká   dá   ngh-ú   dà   sígà*
       should not-2SG   PURP   look-SO   PREP   pot
       'do not look inside the pot'

13.2. Spatial specifiers *dìstá* 'inside' and *mìstá* 'under, behind'

They behave in a way different from prepositions in that they are followed
by possessive pronouns:

(258) *sá-ghà-sá*   *mìstá-d̃á*
       arrive-D:PVG-arrive   under-1SG
       'come follow me'

(259) *bɔ́ghlá-xɔ̀n   mìstá-táŋ*
follow-3PL   under-3PL
'they followed them'

The specifiers appear to be complex structures consisting of the prepositions *mì* or *dì* followed by the lexeme *stí* 'waist' followed by the genitive marker *á*. The evidence for *stí* being "waist" is provided by the following example:.

(260) *st-á   mbítsá*
waist-GEN   Mbitsa
'the waist of Mbitsa'

The evidence for the existence of prepositions *mì* and *dì* is provided by the following:

(261) *mí-tghà*   *mì-dà*
'at home, at my place'   'inside'

(262) *xàɗ-ká   kà   ǹghə   dì-dà*   *wà*
lack-2SG   SEQ   look   PREP-PREP   NEG
'you should not look inside'

(263) *mìs-á-ní*
'under it'

Eguchi 1971 gives the following examples:

(264) *mìsá*   *mìsá-ɗá*
'sur' [mistake, should be *sous* 'under']   'under me'

14. Conclusions

The semantic role of subject and object is coded by stem inflections consisting of the vowel *a* (coding goal orientation), *u* (coding source orientation), and *i* (coding movement away and loss of object integrity). The distinction between direct and dative object is coded by tonal changes, high tone on the verb coding the dative function of the object, low tone coding the direct object function.

The extension *vá* codes partial affectedness of the subject and to a large extent is a counterpart of the marker *u* that codes the complete affectedness of the subject or the event with the subject as beneficiary.

The inverse extension *s* indicates that the object has a semantic relationship different from the one it would have with the inherent characteristics of the verb.

The marker *kú* codes that the subject of the clause is affected. The partitive marker *á* codes partial affectedness of the object.

The locative preposition *da* (with different tones, depending on the inherent properties of nouns) codes movement with unspecified directionality. The direction of the movement is coded by the inherent properties of verbs and/or locative extensions. Prepositions are also used to code the associative, oblique object, dative/benefactive, and instrumental. Some of these coding functions may also be performed by extensions.

Chapter 8

Extensions coding the manner of an event

1. Introduction

Affixes to the verb may code a number of domains, not including the coding of person, and number of arguments. We refer to those affixes as "extensions" in accordance with terminology used in African (and Chadic) linguistics. In the present chapter three extensions are described: the "do again" extension, the "tentative" extension, and the "associative" extension.

2. "Do again" extension *gl*

The extension *gl*, if not followed by a vocalic morpheme, is realized as [gl] or [gəl], depending on local syllabification conditions. The extension is added directly to the verbal root:

(1)   *sə̀-gl-s-í*
       drink-AGAIN-drink-1SG
       'I drank again'

(2)   *zə̂-gl-z-í*
       eat-AGAIN-eat-1SG
       'I ate again'

(3)   *kà   mə́sə̂-gl-tə́-tsí*
       SEQ   apply ointment-AGAIN-REF-3SG
       'and he was again applying the ointment'

The addition of this extension to the verbal root followed by the goal-oriented marker *a* results in an ungrammatical construction:

(4)   **zə́-glə́-nə́-ghə́-z-í*
       eat-AGAIN-DEM-D:PVG-eat-1SG
       for 'I ate again'

The marker *gl* is followed by the goal-oriented marker *á* if there is a referential marker or a locative extension following. If there is a locative extension, the tone on the point-of-view-of-goal marker *a* is high:

(5)   *másɔ́-gl-á-f-másá*
       apply ointment-AGAIN-PVG-UP-apply ointment
       'he again applied ointment'

(6)   *sɔ̀-glà-ghá-s-í*
       drink-AGAIN-D:PVG-drink-1SG
       'I drank again and went'

(7)   *kà   lɔ́-gl-á-p-tsí   kà   má   hìs*
       SEQ   go-AGAIN-PVG-OUT-3SG   SEQ   PREP   two
       'when he went for the second time'

The additional argument marker *ná* can be added. The tone of the goal-oriented marker *a* is low if it is an object:

(8)   *má tà   vrɔ̀-gl-à-ná-f-vrá-lú   tá   mág-áy*
       how   return-AGAIN-PVG-DEM-UP-return-UH   OBJ   make-PO
       ká-'á
       COMP-3SG
       ' "how will it be redone?" he said'

(9)   *sɔ̀-gl-à-ná-ghá-s-í*
       drink-AGAIN-PVG-DEM-D:PVG-drink-1SG
       'I drank something else again and went'

(10)   *zɔ́-gl-á-ná-ghá-z-í*
       eat-AGAIN-PVG-DEM-D:PVG-eat-1SG
       'I ate again'

Compare the same verb without the "do again" extension:

(11)   *zá-ná-ghá-z-í*
       eat-DEM-D:PVG-eat-1SG
       'I ate in addition the food mentioned before'

The "do again" extension is also added to the verbal root with the plural form of the verb, which for monoconsonantal verbs must be reduplicated:

(12)   *zá-zэ́-glá-ná-ghá-zá-z-í*
       eat-eat-AGAIN-DEM-D:PVG-eat-eat-1SG
       'I added many things and ate them all'

In negative clauses with the "do again" extension the scope of negation is the notion "again", meaning that the event was not repeated:

(13)   *sэ̀-gэ̀l-tà-ďá*   *gá*   *màxtsím-à-ní*
       drink-AGAIN-REF-1SG   PREP   next day-GEN-3SG
       vníxí-glà   *á*   *t-fí*   *wà*
       vomit-AGAIN   NEG   OBJ-1SG   NEG
       'After I drank again the next day, I did not vomit anymore'
       (lit. 'it did not vomit me anymore')

(14)   *tà*   *xúlá*   *fìtík*   *mkú*   *snэ̀-gl-í*   *tá*   *skwì*
       PREP   back   time   six   feel-AGAIN-1SG   OBJ   thing
       tá   *kùzl-íxà-tà*   *mà*   *ndzùgù*   *mà*   *ndzùgù*   *yá*
       COM   ache-1SG-REF   in   joints   PREP   joints   DEM
       wà
       NEG
       'After six days I did not feel anymore that thing that made me ache me in the joints' (lit. 'that ate me in the joints')

(15)   *kà*   *lэ́-glá-p-tsì*   *kà*   *má*   *hìs*
       SEQ   go-AGAIN-OUT-3SG   like   PREP   two
       'and he went out for the second time'

The source of grammaticalization of the "do again" extension is most probably the verb *glá* 'grow, be numerous'.

3. Tentative extension *n*, *ŋ*

The tentative extension codes an attempt to accomplish the event. The definite marker *n*, realized as *ŋ* before velar consonants, has acquired the function of the tentative extension, or the marker of a non-accomplished event. The evidence that this marker is in fact identical with the third-person definite marker added to verbs is provided by several facts: (1) It can occur only with transitive verbs and with those intransitive verbs of movement that may include distance covered as their object. (2) The tone of the verb before the tentative extension is low, as it is before object pronouns. (3) Many clauses are inherently ambiguous in isolation:

(16)   *sà-n-s-í*
         drink-3-drink-1SG
         'I tried to drink it' and 'I drank it'

(17)   *xwáyà-n-xwáyà   tá   xwáyá*
         run-3-run   OBJ   race
         'he tried to run the race' and 'he ran the race'

The marker cannot occur with intransitve verbs that code point of view of source (affected subject):

(18)   **fú-n-fá*
         for 'it tried to heat'

Once the goal-oriented marker is added, the marker *n* can be used as well:

(19)   *fwà-n-fwà*
         heat:PVG-TENT-heat:PVG
         'he tried to heat it' or 'he heated it'

The identity of the definite marker and the tentative extension marker is further supported by the fact that the two cannot cooccur.

Additional evidence that the tentative and definite markers are the same is provided by the fact that if there is no cognate object, the clause with the marker *n* can be interpreted as involving a definite object:

(20)   *dzángà-ŋ-á-í*   *kdá*   *wà*
         learn-TENT-NEG-1SG   last year   NEG
         'I did not try to study last year' or 'I did not study it last year'

(21)   *xnà-ŋ-xn-í*   *kítìkw*
         slaughter-TENT-slaughter-1SG   little
         'I tried to slaughter a little' or 'I slaughtered it a little'

The tentative extension can occur with the plural object. Were the *n* to represent here a definite specific object, it could not occur with the third-person plural object:

(22)   *xánà-ŋ-xán-í*   *tá*   *xən*
         slaughter:PL-TENT-slaughter:PL-1SG   OBJ   3PL
         'I tried to slaughter them' (I did not slaughter any)

The scope of negation is the extension, not the verb:

(23)   *dzángà-ŋ-á-í*   *tá*   *dzángá*   *kdá*   *wà*
       learn-TENT-NEG-1SG   OBJ   learn   last year   NEG
       'I did not try to study last year.'

One of the functions of the tentative extension is to code that the aim of the event has not been achieved:

(24)   *xgà-n-xg-íyù*
       call-TENT-call-1SG
       'I tried to call him'

(25)   *xgà-g-xg-íyù*
       call-INN-call-1SG
       'I called him' (and he came)

What remains to be explained is how the definite marker came to acquire the tentative meaning.

4. Associative extension *ndá*

The extension *ndá* is formally identical with the associative marker and the stative marker. We gloss this extension as ASSC so as to maintain the connection with the associative preposition *ndá*. The extension is added after object pronouns, if any. The role of the extension is to code the semantic role of an adjunct as a topic of conversation.

The extension marks the presence of the topic of verbs of mental activity, e.g. "think about", "find out about", "remember", "recall".

A verb with the extension *ndá* may be followed by a clausal complement:

(26)   *dúkwá-f-ndá-dúkwá*   *mbítsá*   *tá*
       realize-UP-ASSC-realize   Mbitsa   OBJ
       zà-ná-p-tà-ní   *tá*   *pìtsákw-á-ní*
       forget-DEM-OUT-REF-3SG   OBJ   hoe-GEN-3SG
       'Mbitsa realized that he forgot his hoe'

A verb with the associative extension *ndá* may be followed by a prepositional phrase with the preposition *tà*. The associative marker on the verb codes the semantic role of the object of the prepositional phrase:

(27)   *dúkwá-f-ndá-dúkwá*   *mbítsá*   *tà*   *pìtsákw-á-ní*
     realize-UP-ASSC-realize   Mbitsa   PREP   hoe-GEN-3SG
     'Mbitsa has found out about his hoe'

(28)   *grá-f-ndá-grá*   *mbítsá*   *tá*
     measure-UP-ASSC-measure   Mbitsa   OBJ
     zà-ná-p-tà-ní   *tá*   *pìtsákw-á-ní*
     forget-DEM-OUT-REF-3SG   OBJ   hoe-GEN-3SG
     'Mbitsa realized that he forgot his hoe'

Another function of the associative extension is the coding of circumstances related to the object:

(29)   *hlà-ná-ndá-hl-í*   *tà*   *ghálí*
     find-DEM-ASSC-find-1SG   PREP   stealing
     'I found him stealing' (i.e., he was stealing)

(30)   *táwà-ná-ndá-táw-í*   *tà*   *nzà-kú*
     find-DEM-ASSC-find-1SG   PREP   seat-ABS
     'I found him sitting' (he was sitting)

The object of the verb with extension *ndá* may be coded by the associative *ndá* rather than by the object marker *tá*:

(31)   *grá-f-ndá-grá*   *tsá*   *dzvá-dá*   *yá*   *ndá*
     measure-UP-ASSC-measure   DEF   hand-1SG   DEM   ASSC
     pìtsákw-á-dá
     hoe-GEN-1SG
     'I found my hoe by chance'

5. "Also" extension *xà*

There is an extension *xà* that is phonologically identical with the downward-movement extension *xà*, but that occurs only with transitive verbs. The function of this extension is "do X with respect to Y also" and its scope is the object. Compare the following sentence where there is no extension *xà* in the first clause, but there is one in the second clause. In fact, the extension *xà* cannot be added to the first clause, and it cannot be omitted from the second clause:

(32) kà   hlíyá-f-tá   zvàxw kà   ɗáwá-f-tá   ntfàn
     SEQ   leave-UP-REF   bat   SEQ   ask-UP-REF   glue
     ɗáwá-f-xà-tá   dàwrà
     ask-UP-ALSO-REF   cloth
     'The bat left and asked for glue and also for clothing'

(33) ɗáwá-f-xà-tá   múdúbí   dáwá-f-xà-tá
     ask-UP-ALSO-REF   eyeglasses (Hau.)   ask-UP-ALSO-REF
     ɓáɓàx ngá   dzà'á   dà   mákwà
     shoes FOR   go   PREP   girl
     'He also asked for eyeglasses and shoes in order to go to a girl.'

6. Conclusions

Three extensions, the "do again" extension *gl*, the tentative extension *n*, and the associative extension *ndá*, code the manner in which an event is accomplished. The extension *xà* 'ALSO', phonologically identical with the downward-movement extension *xà* and the plural marker following nouns, codes new information in addition to that provided earlier. These extensions cannot occur with each other but they may occur with other inflectional markers on the verb, in particular, with various types of verbal stems.

Chapter 9

Adjuncts

1. Introduction

All adjuncts other than inherent lexical adverbs are marked by a preposition. Unlike the object, which is also marked by a preposition, nominal adjuncts do not lose their prepositional markers when they are in a position different from that in a pragmatically neutral clause. In this chapter we describe the coding of the locative, manner, time, reason, and instrumental. The unmarked position for all adjuncts is sentence final, but they can be moved to other positions for various pragmatic functions. Adverbial phrases of time may be marked by the same prepositions that mark locative phrases, but they may also be marked by the associative preposition *ndá*. The syntax of adverbial phrases of time is quite different from the syntax of locative expressions.

2. The oblique argument

A clause may have, in addition to an object, another argument following the object whose function is to serve as a comment on the object and perhaps as a comment on event. Such an argument is marked by the preposition *kà* 'as, like':

(1)   *klá-f-klà*   *kà màrákw*
       take-UP-take   as   wife
       'he took her as his wife'

(2)   *klá-f-klà*   *tá*   *pghìntà*   *kà màràkw*
       take-UP-take   OBJ   Phinta   as   wife
       'he took Phinta as his wife'

The oblique argument is used when one object is transformed into another. The final product is coded as oblique:

(3)   *kà*   *d-ù-tà*   *kà ghzú*
       SEQ   cook-SO-REF   as beer
       'and she transformed it into beer'

(4)   *d-ù*   *kà*   *ɗàlí*
       cook-SO   as   sauce
       'she made a sauce out of it'

(5)   *kà*   *tsùà-gá-f-tá-tsí*   *tàa,*   *tàa,*   *tàa,*   *tá*   *rvérè*
       SEQ   pull-INN-UP-REF-3SG   OBJ   OBJ   OBJ   OBJ   lion
       kà   *xná-tà*   *kà xútá*   *ngá*   *dzà'á*   *skál-á-ní*
       SEQ   cut-REF   as hide   FOR   go   dance-GEN-3SG
       'He pulled up Lion [and] slaughtered him for the skin so that he
       could go to the dance with [it (the skin)].' (*xútá* 'skin' and also loin
       garment made from skin)

Compare *xútá* as object:

(6)   *kà*   *xná-tà*   *xútá*
       SEQ   cut-REF   skin
       'and he cut the skin'

The oblique argument marking is also used to code the names of people
and things:

(7)   *tsá*   *sá-fà-tán*   *yá*   *gúlí*   *ná,*
       DEF   arrive-UP-3PL   DEM   also   DEM
       hlà-ná-ghá-hlá-xòŋ   *tá*   *mìndrá*   *mìndú-xà*   *tà*
       find-DEM-D:SO-find-3PL   OBJ   clan   man-PL   IMPF
       xgò-lú   *kà Gùdálù.*
       call-UH   as Gudalu
       'Also when they came, they found a clan that was called Gudalu.'

3. The instrumental adjunct

The instrumental adjunct is marked by the associative preposition *ndá*.
The adjunct follows the arguments:

(8)   *ndá*   *xná*   *hlà*   *dà*   *mbítsá*   *ndá*   *mángá*
       STAT   slaughter   cow   PREP   Mbitsa   ASSC   knife
       'the cow is slaughtered by Mbitsa with a knife'

(9)   *kà*   *gì*   *lá-xá*   *xdi-xà*   *dá*   *gùyá*   *xəŋ*
        SEQ   immediately   go-DOWN   Hdi-PL   PURP   meet   3PL
        ndá   *lmú*   *ndá*   *ghòdzì*   *ndá*   *lghéd,*
        ASSC   war   ASSC   quiver   ASSC   bow
        'And Xdi immediately went to meet them with war, with quiver, with bow'

The associative phrase may be reduplicated. The reduplication: associative has a distributive function:

(10)   *ndá*   *zwáŋ*   *ndá*   *zwáŋ*   *tà*   *xùlá-táŋ,*
        ASSC   child   ASSC   child   PREP   back-3PL
        ndá   *ùdzú*   *ndá*   *ùdzú*   *mà*   *dzvá-táŋ*   *ká-'á.*
        ASSC   wood   ASSC   wood   PREP   hand-3PL   COMP-3SG
        ' "Everybody has a child on her back and a piece of wood in her hand," he said.'

4. The locative adjunct

In pragmatically unmarked clauses, all locative adjuncts occur in clause-final position. They can be moved to clause-initial position for focusing or topicalization. Some lexical items are inherently locative adjuncts. These are unmarked, except by the position at the end of the clause. Other locative adjuncts are marked by prepositions.

4.1. Inherently locative adverbs

Inherently locative adverbs are derived from *xàd* 'place', followed by one of several demonstrative markers:

(11)   *xàd ná*   'here'
        xàd yá   [xàd yá]   'here, proximate'
        xàdà á   [xàdà á]   'there, anaphoric'

Such expressions follow the verb and are not marked by a preposition. They may, however, be modified by a prepositional phrase:

(12) *lá-m-là   dífà-úgh-tà   xàdì   yá,*
      go-IN-go   hide-SO-REF   place DEM
      mà   tùghwázàk   xàd   yá   6á
      PREP   hibiscus   place DEM   RESP
      ' "Go hide yourself here, in the hibiscus, in this very place".'

The adverb *xàd* may be preceded by prepositions that function as spatial specifiers, situating an object or event with respect to a place:

(13) *lá-mà   pákáwá ghúvì   dá   xàdà   mà   tùghwázàk*
      go-IN   hyena   PREP   here   PREP hibiscus
      kà   hlà-ná-ghá-tá-tsí   tá   krì
      SEQ   find-DEM-D:PVG-REF-3SG   OBJ   dog
      'When Hyena entered the hibiscus, he found Dog.'

The form *xàdà á*, which includes the remote demonstrative, functions as a locative anaphor, i.e. as a marker referring to a location mentioned earlier in discourse. This marker is opposed to the marker *xàd yá*, which has a deictic function, pointing to a place near the speaker. Compare the usage of the two forms in the following example. (The first locative expression used is *xàd yá* 'here'. When the same location is referred to later in the sentence, the form *xàdà-á* is used.)

(14) *sá-ghà   pákáwá ghúvì ndzdà-vá-tà   pákáwá ghúvì*
      arrive-D:PVG   hyena   last-APPL-REF hyena
      tà   xvá   ká   yàghí   mántsá   lá-m-là
      PREP   work   COMP   squirrel COMP   go-IN-go
      dá   xàd   yá   6á   màá   skwì   dzà'á
      PREP   here   DEM   please exist thing   go
      hlà-ná-ghá-tà-ká   *xàdà   ká-'á*
      find-DEM-D:PVG-REF:SUBJ-2SG   here   COMP-3SG
      ndá   pákáwá ghúvì
      ASSC   hyena
      'When Hyena came, and after he worked for some time, Squirrel told him: "Go in there, won't you, there is something that you are going to find there," he told Hyena.'

4.2. The preposition tà

The preposition *tà* marks the locative adjunct without any specification of spatial relationships. The preposition *tà* cannot be replaced by *da* in adjunct phrases:

(15)   *màgá-lú   kà   dá   tsghá   tsá   vàrà   yá*
       before-UH   SEQ   PREP   send   DEF   beans   DEM
       *tà/*dà   wùbú*
       PREP   small granary
       'Before sending the beans up to the granary'

(16)   *mbàɗká-xàn   tàmá   kà   hlíí   tsghá   vàrà   tà*
       then-3PL   now   SEQ   go   put up beans   PREP
       wùbú
       small granary
       'Now they went to put the beans into the granary.'

(17)   *kí   vlì   tà   bèrék*
       how   place   PREP   Berek
       'How are things at Berek?' (Berek ← barrack [Eng.] administrative quarter of town)

The preposition *tà* may occur before a noun in clauses that imply a directional locative complement. But directionality is coded by the distal extension *gh* with the source-oriented marker *u*. The preposition *tà* does not code directionality but rather a locative adjunct.

(18)   *lá-ghú-lá   mbítsá tà   lúmá   gá   sàrɗák*
       go-D:SO-go   Mbitsa PREP   market PREP   morning
       'Mbitsa left for the market this morning'

(19)   *wàá   lá-ghw-í   tà   lúwá*
       there   go-D:SO-REF   PREP   sky
       'there, it went into the sky' (about birds, airplanes)

4.3. The preposition gà 'inner space'

The preposition *gà* 'inner space' is used as the sole locative marker with stative locative verbs. It locates the event or object within the deictic center or as directed toward or from inside the deictic center. The deictic center,

however, is not an enclosed space. It may be a compound, a group of people, a country, or a market. The deictic center for the preposition *gà* cannot be a pot, a bush, or the like.

(20) *xádʼ   ìm   gà xdí   wù   kó*
      NEG   water   in Hdi   NEG   Q (Hau.)
      'So, there are no rains in Hdi?'

(21) *tá   dʼghwáná vlì   gà   xdí*
      COM   be well   area   PREP   Hdi
      'Is everything fine in Hdi?'

The preposition *gà* can be used with a human plural argument:

(22) *xàdʼú   gà   íŋní   wù*
      not to be   PREP   1PL.EXCL   NEG
      'she is not with us'

When the preposition occurs with a human or animate noun, it refers to the home of the human or animate, not to the body:

(23) *tò,   kà   hlíʼyá-f-tá-tsí   gà   vàzák*
      well,   SEQ   leave-UP-REF-3SG   PREP   rooster
      'Well, he left [the house] of the rooster'

4.4. The preposition mà 'in'

This preposition *mà* 'in' may be the sole marker of the locative phrase or it may occur with other prepositions. It describes location with respect to an enclosed deictic center, such as a pot, a house, a bush. Like other prepositions, it can be used with meanings both "to" and "from":

(24) *mà   tàbá   tsá   zwanà   kdʼéri*
      PREP   center   DEF   child:PL-GEN   Kderi
      'among these children of Kderi'

(25) *kà   lá-m   ùvá   hlà-ná-ghá-tá   vàzák   tá*
      SEQ   enter-IN   cat   find-DEM-D:GO-REF   rooster   COM
      dʼífá-úgh-tà   mà   tùghwázàk
      hide-SO-REF   PREP   hibiscus
      'When Cat entered, he found Rooster hiding in the hibiscus.'

(26) kà   á   ká-'á   nghà-dá-tà   ná
     SEQ   3SG   COMP-3SG   look-ALL-REF   COMP
     zwàn-à-ní   mà   sígà
     child:PL-GEN-3SG   PREP   pot
     'And he saw that his children were in the pot.'

The preposition *mà* cannot be used with directional verbs:

(27) pghà-dá-pghà   tá   zwàn-à-ní   dà/*mà   sígà
     put-ALL-put   OBJ   child.PL-GEN-3SG   PREP   pot
     'he put his children in the pot'

The preposition *mà* can be used in temporal expressions:

(28) mà   sán-à   fitík
     PREP   other-GEN   time
     'One day'

4.5. The associative preposition ndá as spatial specifier

The associative preposition *ndá* may be combined with locative preposi-
tions. It then has the meaning "by", "around", "about". When *ndá* is
combined with the preposition *tà*, the meaning is either directional or sta-
tive:

(29) ngá   lá-m-à-ní   ndá   tà   zlàngwádàk
     NORM   enter-IN-GEN-3SG   ASSC   PREP   back entrance
     'She should enter through the back of the compound.'

(30) lá-ghw-í   ndá   tà   wátghà
     go-D:SO-REF   ASSC   PREP   door
     'he went out through the door'

Cf. *ndá* combined with the preposition *mà*:
(31) tà   mág-áy-xòn   àmá   ndá   mà   nìzéryà   tà
     IMPF   do-PO-3PL   but   ASSC   N   Nigeria   IMPF
     mágú-lú   bàd   tsá
     do-UH   day   DEF
     'They do it, but it is in Nigeria that they do it on those specific
     days.'

(32) ndá   mà   nìžéryà
      ASSC   in   Nigeria:Q
      'In Nigeria?'

4.6. The benefactive adjunct

The benefactive adjunct is marked by the preposition *ngá* 'FOR':

(33) mbàdʼ ká   pákáwá ghúvì kày   kà   klà-á-tà
      then   COMP   hyena   INTERJ   SEQ   take-PART-REF
      ngá   zwàn-à-ní
      FOR   child:PL-GEN-3SG
      'Hyena took some of it for his children.'

(34) kábgà   xàdʼú   skwì   ngá   zá-y   ngá   tán   wù
      because   lack   thing   FOR   eat-PO   FOR   3PL   NEG
      'Because there was nothing for them to eat'

The marker *ngá* also codes the person to whom something is sent:

(35) tà   xùlá   tsá   mbàdʼká-ŋní   kà   ts-á-ghá-ghá
      PREP   back   DEF   then-1PL.EXCL   SEQ   send-PL-D:PVG
      tá   dʼélèwér   ngá   índà   tsà   mghám-xà   mà
      OBJ   paper (Ful.) FOR   all   DEF   chief-PL   PREP
      lúwà . . .
      village
      'Afterward we sent papers to all the village chiefs . . .'

5. Adverbs of manner

The inherent adverbs of manner may occur in either clause-initial or clause-final position. The adverb *tántán* 'first' has as its scope the time of the event:

(36) tántán   mbàdʼ   ká-'á   kà   xgà-n-tá   vàzák
      first   then   COMP-3SG   SEQ   call-3-REF   rooster
      'First he invited Rooster.'

The adverb *tíngəl* also means "first", but its scope is the subject of the clause:

(37)   *tíngəl*   *vàzák*   *tá*   *lá-ghà*   *tántán*
       first   rooster   COM   go-D:PVG   first
       'First arrived Rooster'

The adverb *gúdúk* 'together, a lot, in one group' may occur in clause-initial position or it may follow the verb:

(38)   *kà*   *pgh-í-n-tà*   *gúdúk*   *dìstá-ní*
       SEQ   put-AWAY-3-REF   together   in-3SG
       'and he put them all inside it [the beans].'

(39)   *gúdúk*   *tsd-í-n-tà-tsí*   *tá*   *hlùghúl*   *dìstá-ní*
       a lot   put-AWAY-3-REF-3SG   OBJ   salt   inside-3SG
       'he put a lot of salt inside it'

The adverb *mbúúlùk* 'very well' has been recorded in clause-final position:

(40)   *mbàd*   *ká*   *mbízà*   *kà*   *dà-tà*   *mbúúlùk*
       then   COMP   bean dish   SEQ   cook-REF   very well
       'Then the bean dish cooked very well.'

There is also at least one morphological device, reduplication (a common device for deriving adverbs in other Chadic languages), for deriving adverbs from other lexical items:

(41)   *mìsí-mìsím*   'fast', 'easily'
       tán-tán   'first'

(42)   *kà*   *s-í*   *tá*   *tsá*   *xwání*   *yá*   *kì'yá*   *kì'yá*
       SEQ   drink-1SG   OBJ   DEF   medicine   DEM   little   little
       'I drank that medicine in little quantities'

The adverbial expression *ndá-ndáná* probably consists of the reduplicated associative preposition followed by the demonstrative *na*:

(43)   *dzà'á*   *skwá-í*   *ndándáná*
       FUT   buy-1SG   immediately
       'I will buy [it] immediately'

If the adverbial expression is formed from inherent verbs, the verb is reduplicated but each of the reduplicated parts is preceded by the locative preposition *tà*:

(44) *m̀ghám*   *tá*   *ghùn-àf-t-ɍí*   *tà*   *xwáyá tà*
     chief   COM   send-UP-REF-1SG   PREP   run   PREP
     xwáyá
     run
     'it is the chief that sent me urgently'

(45) *xwáyá*   *tá*   *vl-íxà-tà*   *tá*   *bàlóŋ tà mbàɗá*
     Xwaya   COM   give-UP-REF-1SG   OBJ   ball   IMPF   walk
     tà   *mbàɗá*
     PREP   walk
     'Xwaya gave me a ball while I walked by'

A few prepositional phrases functioning as adverbs must occur in clause-initial position. This is the case with *má ndá* 'like', which, together with its noun, cannot occur in clause-final position:

(46) *mándá xìyá*   *tà*   *ǹgh-íyù*   *tá*   *kághá*
     like   guinea corn   IMPF   see-1SG   OBJ   2SG
     'you are very beautiful'
Cf.:
(47) **tà*   *ǹgh-íyù*   *tá*   *kághá*   *mándá*   *xìyá*
     IMPF   see-1SG   OBJ   2SG   like   guinea corn
     for 'I see you as guinea corn'

The adverb of manner may also be marked by the associative preposition *ndá*:

(48) *sá-ú*   *ndá*   *xwáyá*
     arrive-SO   ASSC   run
     'come running!' (singular addressee)

The adverb *mántsá* 'like that' may occur at the beginning or at the end of a clause:

(49) *xná-xná-lú mántsá*
     cut-cut-UH like that
     'they cut it like that'

Color terms, when following a verb rather than a noun, have an adverbial function:

(50)   *kà   vníxà-gá-f-t-í   tántán kà   ghúv-à*
          SEQ   vomit-INN-UP-REF-1SG first like excrement-GEN
          zwán tà   xúlá tsá kà   kzún kzúŋ
          child PREP back DEF like grass
          'I vomited first yellow and afterwards green'

(51)   *àmmá kà   ghúv-à   zwán tà*
          but   like excrement-GEN child IMPF
          ghùdz-í   tá   kwàní
          urinate-1SG OBJ urine
          'But I urinated yellow urine'

6. Adverbs of time

The unmarked position for adverbs of time is clause final, preceding adverbs of manner, if any. Lexical items that are inherently adverbial are not preceded by prepositions. This is the case with adverbs coding time, e.g. *kɗá* 'last year':

(52)   *dzángàŋ-á-í   tá   dzángá   kɗá   wà*
          learn-NEG-1SG OBJ learn   last year NEG
          'I did not study last year.'

(53)   *nàná gwàɗá   dzà'á gwàɗ-í   náná tà   ghə̀ngà*
          DEM   word   FUT   tell-1SG DEM IMPF concerning
          ndzà-kw-á-ɗá   kɗá
          happen-ABS-1SG last year
          'The story that I am going to tell is about what happened to me last year.'

The adverb *tàmá* 'then, later, after, finally' occurs in clause-final position in a pragmatically neutral clause:

(54)   *kà   lá-úgh rvérè tàmá*
          SEQ   go-SO lion   then
          'and then Lion went out'

If an adverb of place is marked by a preposition, an adverb of time follows the adverb of place:

(55) sí   tà   lúmá   pghìntà   d'áxàw
      PAST   PREP   market   Phinta   yesterday
      'Phinta was at the market yesterday'

The adverb gúlì 'still' also occurs in clause-final position:

(56) màmú zwán kày   gúlí
      exist child INTERJ still
      'he still has a child'

The adverb tákà 'anymore' occurs in clause-initial position and only in negative clauses:

(57) tákà   zwán á   wà
      anymore   child NEG   NEG
      'he is not a child anymore'

An adverbial phrase of time may also be marked by the associative preposition ndá. Thus the expression corresponding to "now" has the form of the associative preposition followed by the reduplicated demonstrative ná. The tone of the first part of the reduplicated demonstrative is high, and on the second part it is low:

(58) tà   d'ghùán-lú   ndá   ná   ná
      IMPF   be well-UH   ASSC   DEM   DEM
      'they are well now'

(59) ndá   fitíká-ní   tà   hlɔgù-lú   tá   hlɔgù
      ASSC   time-3SG   IMPF   plant-UH   OBJ   plant
      'one plants at a well-determined time'

7. Interjections

We consider interjections to be adjuncts because they can be added to virtually any clause. The interjection o, àw, occurs in clause-initial position. It shows the speaker's impatience with, or neglect for, the thing mentioned:

(60) ó   ghàlá-ká   ká   vàrà   d-ú'ú   ghàlyá tà
      INTERJ   like this   COMP   beans   father-1DU   earlier IMPF
      yá-kú   ndá   slá   ndá   slá   [tsá]
      yield-ABS ASSC   leg   ASSC   leg   like that
      ' "Oh, it is like this: The beans of our forefathers earlier were born
      with feet." '

The interjection of regret, deception, and other unpleasant feelings is *kày*.

(61) tsá   mìndú   yá   kày   yà   ndá   mtá
      DEF   man   DEM   INTERJ   COP   ASSC   die
      'it is the man that we talked about that is dead'

(62) kàbgà   wú   kɘl-ká   kà   xgà-n-tá
      because   Q   take-2SG   SEQ   call-3-REF
      ùvá   kày   yàghá   ká   xgà-n-tá   ùvá
      cat   INTERJ should not   2SG   call-3-REF   cat
      ká-ì [kí-í] kày-ní   nìà   kɘl-ká   kà   xgà-n-tá
      COMP-1SG Q-RHET why   take-2SG   SEQ   call-3-REF
      ùvá   ká-'á   ndá   yàghí
      cat   COMP-3SG   ASSC   Squirrel
      ' "Why did you invite Cat, despite the fact that you should not
      invite Cat, as I told you?" he said to Squirrel.'

The interrogative interjection is *á*. It occurs in clause-initial position. It expresses disapproval of the thing questioned. The following example contains three interjections:

(63) sá-ghà   rvér   ná   á   kàbgà   wú
      arrive-D:PVG   lion   COMP   INTERJ   because   Q
      kɘl-ká   kà   xgà-n-tá   rvér   kày [kè]   wà á
      take-2SG   SEQ   call-3-REF   lion   INTERJ   there
      sá-ghà   rvér   tàmá   xgà   ngú   ká   tá   rvérè
      arrive-D:PVG   lion   still   invite   why   2SG   OBJ   lion
      yàgh   ká   xgà-n-tá   rvér   kí-'í
      should not   2SG   call-3-REF   lion   COMP-1SG
      kè [kày]   ká   gwì'yán
      INTERJ   COMP   elephant
      'While Lion was coming, Elephant said, "Why did you invite
      Lion, when I told you not to invite him? There is Lion coming,
      haven't I told you not to invite Lion?" '

8. Conclusions

Most adjuncts follow the verb. Non-inherent adjuncts are marked by various prepositions. An oblique argument, i.e. an argument whose role is not specified and that can be added to a variety of verbs, is marked by the form *kà* 'as, like', identical with the sequential marker. The instrumental adjunct is marked by the associative preposition *ndá*. If a lexical item is not inherently an expression indicating time, the associative preposition *ndá* is used to mark an adverb of time. The locative adjunct is marked by the preposition *tà*. Interjections can occur in clause-initial or clause-final position.

Chapter 10

Locative extensions

1. Introduction

Affixes to the verb may code three semantic domains involved in the coding of movement: the direction of movement, the position of the speaker, and spatial orientation of movement with respect to the source or the goal. In addition to locative functions, extensions may have a variety of other functions, often linked to specific verbs. We present first the extensions coding point of view, then general directional extensions, then a system of extensions coding spatial orientation.

2. Coding of the point of view

The coding of the point of view is a fundamental category in the grammatical structure of Hdi that pervades the system of locative expressions and also the system of object pronouns. The term *point of view* covers the point of view of the source from which movement originates and the point of view of the goal of the movement.

3. Goal-oriented marker and the morphology of extensions

The vowel *a*, the goal-oriented marker (glossed "GO"), must follow the verb whenever one of the spatial extensions from the set comprising *f* 'movement up', *gh* 'distal', *p* 'movement out', *xà* 'movement down', *dá* 'allative', *mà* 'movement in' and *ga* 'inner space orientation' is added. Compare the following examples, all in the prohibitive mood. The first one has no extension, and the remaining have various locative extensions:

(1)　　mà　　kə́l-ká
　　　　PROH　take-2SG
　　　　'do not take it'

(2)　　mà　　kl-á-ghá-ká
　　　　PROH　take-GO-D:GO-2SG
　　　　'do not take it there'

(3)   *mà   kl-á-f-ká*
    PROH   take-GO-UP-2SG
    'do not pick it up'

(4)   *mà   kl-á-p-ká*
    PROH   take-GO-OUT-2SG
    'do not take it out'

(5)   *mà   kl-á-m-ká*
    PROH   take-GO-IN-2SG
    'do not put it in'

Two extensions, *gá* 'inner space orientation' and the allative *dá*, are preceded by a low rather than by a high tone:

(6)   *mà   kl-à-gá-ká*
    PROH   take-GO-INN-PVG-2SG
    'do not bring it down here'

(7)   *mà   kl-à-dá-ká*
    PROH   take-GO-ALL-2SG
    'do not take it down there'

If the verb contains a dative object, the goal-oriented vowel *a* does not occur before the inner space and allative extensions. Pronouns follow the ventive and allative extensions, and the verb has a high tone, as always when the dative function is involved:

(8)   *kɔl-gá-ná-ghà*   *ìmí*
    take-INN-3SG-D:PVG   water
    'bring him some water!' (Beneficiary is in the place of speech.)

(9)   *kɔl-dá-ná-ghà*   *ìmí*
    take-ALL-3SG-D:PVG   water
    'take some water for him!' (Beneficiary is not in the place of speech.)

(10)   *kl-í-g-ì-d'-á-ghà*   *ìmí*
    take-EP-INN-AWAY-1SG-PVG-D:PVG   water
    'bring me some water!' (the same level)

(11)   *kl-í-g-ìxà*   *ìmí*
    take-EP-INN-1SG-DOWN   water
    'bring me down some water!'

The verb has the vowel *a* when followed by dative or direct object pronouns, because the presence of an object involves goal orientation:

(12)   *mà*   *kl-á-ná-ká*
     PROH   take-PVG-DEM-2SG
     'do not take it for him'

(13)   *mà*   *kl-á-n-ká*
     PROH   take-PVG-DEM-2SG
     'do not take him'

If one locative extension follows another, the goal-oriented marker must occur between the extensions:

(14)   *mà*   *kl-à-d-á-f-ká*
     PROH   take-PVG-ALL-PVG-UP-2SG
     'do not take it up there [from here]'

(15)   *mà*   *kl-à-d-á-p-ká*
     PROH   take-PVG-ALL-PVG-OUT-2SG
     'do not take it out there'

(16)   *mà*   *kl-à-g-á-f-ká*
     PROH   take-PVG-VENT-PVG-UP-2SG
     'do not take it up here'

(17)   *mà*   *kl-à-g-á-p-ká*
     PROH   take-PVG-VENT-PVG-OUT-2SG
     'do not take it out of there'

4. The system of locative extensions

Locative extensions consist of the following groups, arranged in the order they occupy after the verb and the way they can be combined. Members within each group cannot be combined with one another. With the verb being the leftmost component, the extensions are organized as follows:

Group 1	Group 2	Group 3
g 'inner space'	*gh* 'distal	*f* 'movement up'
dá 'allative'		*p* 'movement out'
		xà 'movement down'
		m 'movement in'

Each extension can be the only extension following the verb. Any member of Group 1 can be combined with the distal extension *gh* or with any member of Group 3. The distal extension *gh* can also be combined with any member of Group 3. Each combination results in a different meaning of the clause. Extensions of the Groups 1, 2, and 3 can also be combined, in that order.

Locative extensions are suffixed to non-reduplicated verb stems and infixed to reduplicated verbs. They follow markers of the semantic roles of subject and object. If the verb has a pronominal suffix coding the object or the dative, the verbal extension follows the suffix. If there is a plural marker in the imperative form of the verb, the imperative plural marker follows the extensions:

(18)   *hlï'yà-dá-p-wà-hlï'yà*
        leave-ALL-OUT-PL-leave
        'get out of there'

Whether an extension is used depends not only on the function of the extension alone but also on the inherent properties of verbs of movement, if any. Thus if the verb has the inherent property of movement toward the place of speech, the inner space extension is not used. If the meaning of the verb implies "descent", the extension coding movement downward is not used.

The primary function of locative extensions is to indicate the direction of movement. If the verb codes only the manner of movement, the locative extensions are the primary means of encoding direction and spatial orientation. The verb *vàl* 'jump' inherently does not imply any direction, as illustrated by the following example with the applicative marker *vá*:

(19)   *vàl-à-vá-vàl-í*
        jump-APPL-jump-1SG
        'I jumped' (e.g., seeing a snake, I jumped)

To code directionality, the locative extensions are used. The locative phrase itself does not have to occur:

(20)   *vàl-á-p-vàl-í*   (*tá   zùí*)
        jump-OUT-jump-1SG   OBJ   rope
        'I jumped [over a rope]'

(21) *vàl-à-dá-p-vàl-í*   *dá*   *xàdà*   *á*
jump-ALL-OUT-jump-1SG   PREP   there   DEM
'I jumped until there'

(22) *vàl-á-m-vàl-í*
jump-IN-jump-1SG
'I jumped in'

(23) *vàl-à-dá-m-vàl-í*
jump-ALL-IN-jump-1SG
'I jumped in there' (the place was mentioned before in discourse)

In what follows we discuss individual extensions, describing their form and providing evidence for their primary and secondary functions as well as constraints on occurrence with other extensions. Whenever we have adequate data, we posit a grammaticalization source for the extension.

5. The distal extension *gh*

5.1. The form of the distal extension

Like all spatial extensions, the extension *gh* must be preceded by the goal-oriented marker *a*. The phonetic form of object pronouns provides the evidence for the presence of the vowel *a* before the distal extension *gh*. The vowel *u* of the first-person dual inclusive pronouns is replaced by the vowel *a*. Under the influence of the vowel *a*, from which it is separated by *gh*, it is labialized and becomes [ú'á].

(24) *tf-ù'ú-á-ghá-tfá-lú*   *tá*   *wì*   → [tf-ú'wá-ghá-tfú-lú]
spit-1DU-D:GO-spit-UH   OBJ   mouth
'we (1DU:INCL) were blessed'

(25) *hl-ù'ú-á-ghá-hlà*   → [hl-ù'wá-ghá-hlà]
find-1DU-PVG-D:GO-find
'he found the two of us' (The subject is not with the object.)

The distal extension must be followed by either the goal-oriented marker *a* or the source-oriented marker *ú*. The verb preserves its underlying tone before the distal extension in both of its realizations. The distal extension *gh* can occur with movement and non-movement verbs; its core

role of coding directionality and point of view contributes to the meaning of all types of verbs. The source-oriented and goal-oriented extensions provide the specific directions and the points of reference with respect to directionality.

5.2. The role of tone with the distal extension

The tone on the distal cum goal-oriented extension can be high or low. The high tone indicates movement toward the goal from a point of view other than that of the goal. The low tone on the distal cum goal-oriented extension indicates movement toward the goal from the point of view of the goal. The distal extension with low tone and and goal-oriented marker *a* is glossed as D:PVG (distal, point of view of goal)

(26)   *pghì-g-ì-d-á-ghà-pghà*
        accompany-AWAY-1SG-INN-D:PVG-accompany
        'he accompanied me here'

If the goal is not overtly coded, the default goal is the place of speech or the place previously mentioned in discourse:

(27)   *sá-ghà-sá*
        arrive-D:PVG-arrive
        'he came'

The goal may also be overtly coded by the directional preposition *da*. The use of the low-tone, goal-oriented extension with the verb *lá* 'go' means 'arrive':

(28)   *lá-ghà-lá*   *dá*   *xdí*
        go-D:PVG-go   PREP   Hdi
        'he arrived at Hdi'

The distal source-oriented extension always has a high tone, regardless of the characteristics of the verb. It always codes movement away from the source:

(29)   *kà*   *lá-ghú-tsí*   *dà*   *zíngá*
        SEQ   go-D:SO-3SG   PREP   Zinga
        'he went to Zinga' (from a place previously identified)

(30) *mbàɗ ká-'á   kà   w-í-g-í-n-tà   kà*
      then COMP-3SG SEQ take.PL-AWAY-INN-3-REF SEQ
      lá-ghw-í   dîfà-ná-tá   zwàn-à-ní
      go-D:SO-REF hide-3-REF   child:PL-GEN 3SG
      'He took his children and hid them.'

(31) *kà   xlyá-f-tá-lú   kà   lá-ghú-lú*
      SEQ   leave-UP-REF-UH SEQ   go-D:SO-UH
      'one got up and went'

(32) *lá-ghú-lá   dá   xdí*
      go-D:SO-go   PREP Hdi
      'he went to Hdi'

(33) *sá-ghú-sá   dá   xdí*
      arrive-D:SO-arrive PREP Hdi
      'he came to Hdi' (from the place of speech)

The tonal behavior of the two source-oriented and goal-oriented extensions has a unique motivation: The high tone codes direction away from the source, be it the place of speech or participants. The low tone codes direction toward the goal from the point of view of the goal. Since the source-oriented always codes movement away, it always has high tone. The goal-oriented extension has high tone when it codes movement toward the goal from a point of view other than the goal, and low tone when it codes movement toward the goal from the point of view of the goal.

5.3. The distal extension with verbs of movement

A typical situation for the use of the distal extension with the source-oriented marker is when one inquires about somebody in a place where the person is expected to be. If the person has left, that will be expressed with the source-oriented marker:

(34) *lá-ghú-lá   tà   lúmá*
      go-D:SO-go   PREP market
      'he went to the market'

(35)   ndrá-ghú-ndrá
     fly-D:SO-fly
     'it flew out forever'

The distal and source-oriented extensions may be used in the imperative mood:

(36)   lá-ghú-wá-lá
     go-D:SO-PL-go
     'go!'

The distal extension with the source-oriented marker can be used with the verb sá 'come'. A locative phrase with such verbs codes the place from which one came.

(37)   sá-ghú-sá   tà   lúmá
     arrive-D:SO-arrive   PREP   market
     'he returned from the market' (the speaker is at the place of arrival)

The use of the distal extension with the source-oriented marker allows one to discover the inherent properties of the verbs. Thus if the extension is used with the verb vrà 'return', the meaning of the complex is to return from a previously mentioned place. A locative phrase with such a verb does not code the place from which one returned but rather a goal toward which one returns. Therefore the verb must be analyzed as inherently coding return toward a goal:

(38)   vrá-ghú-vrá   tà   lúmá
     return-D:SO-return PREP   market
     'he returned to the market' (The speaker is at the place from which the subject returned, not at the market.)

With the verb sá 'arrive', the distal extension with the source-oriented marker codes the finality of movement:

(39)   sá-ghú-sá
     arrive-D:SO-arrive
     'he left the other place and came', 'he came for good'
Cf.:
(40)   sá-sà
     arrive-arrive
     'he came'

(41) mà   sán   fitík   kà   sá-ghú   tsá
      IN   certain day   SEQ   arrive-D:SO   DEF
      zwáŋ-á-ní   yá
      child-GEN-3SG   DEM
      'one day that son of his returned for good' (i.e. left his original place)

(42) mà   sán   fitík   kà   sá-ghá   tsá
      IN   certain day   SEQ   arrive-D:GO   DEF
      zwáŋ-á-ní   yá
      child-GEN-3SG   DEM
      'one day that son of his returned'

Additional evidence for the meaning of finality of the distal extension followed by the source-oriented extension is provided by the fact that it cannot be used in the dependent imperfective aspect:

(43) kà   lə-*(ghú)-tsí   dà   pákáwá ghúvì
      SEQ   go-D:SO-3SG   PREP   hyena
      'he goes to Hyena'

With the verb sá 'arrive', the presence or absence of the distal extension gh does not affect the meaning of the reduplicated verb:

(44) sá-(ghà)-sá-xən   dá   kátá   vghá-tán
      arrive-D:PVG-arrive-3PL   PURP   help   body-3PL
      'they came to help each other'

With the simple form of the verb sá 'arrive', the goal-oriented extension is required in referential clauses:

(45) kà   sá-ghà   ghùb-í-n-tà
      SEQ   arrive-D:PVG   wash-AWAY-3-REF
      'she came and washed it'

Without the extension it would not be clear where the subject arrived:

(46) *kà   sá   ghùb-í-n-tà
      SEQ   arrive   wash-AWAY-3-REF
      for 'she came and washed it'

In the following example the distal extension has high tone because it refers to a goal away from the place of speech:

(47)   tà   nghə́-tsə   ná   tà   sá-ghá   ùvá
       IMPF   see-3SG   COMP   IMPF   arrive-D:GO   cat
       'he sees Cat coming.'

The clause is ungrammatical with the distal extension *gha* omitted, because it does not specify where the subject is arriving and yet the verb implies that the event is being observed:

(48)   *tà   nghə́-tsə́   ná   tà   sá   ùvá
       IMPF   see-3SG   COMP   IMPF   arrive cat
       for 'he sees Cat coming.'

5.4. The object in the scope of the distal extension

The object may be in the scope of the distal extension. The functions of the goal-oriented and the source-oriented extensions are quite different. With the goal-oriented extension the object undergoes movement. With the high tone the movement is seen from a point of view other than that of the goal:

(49)   íí   dzà'á   ghùnà-ghá-tá   kághá
       1SG   FUT   send-D:GO-REF   2SG
       'it is I who will send you'

(50)   kà   klá-ghá-tá-(tsí)   tá   vàrà
       SEQ   take-D:GO-REF-(3SG)   OBJ   beans
       'and he took the beans away'

With the low tone the movement of the object is represented from the point of view of the goal:

(51)   kà   klà-gá-ghà-tá-(tsí)   tá   vàrà
       SEQ   take-INN-D:PVG-REF-(3SG)   OBJ   beans
       'and he brought the beans'

(52)   kà   klà-dá-ghà-tá-(tsí)   tá   vàrà
       SEQ   take-ALL-D:PVG-REF-(3SG)   OBJ   beans
       'and he took the beans somewhere [and arrived there]'

When the object is in the scope of the point of view of the source, the extension means that one part of the object is separated from the rest:

(53)   zá-ghú-zá
       eat-D:SO-eat
       'he ate the upper part of the food'

(54)   sà-ghù-sà
       drink-D:SO-drink
       'he drank the upper part of a liquid'

The distal extension with the point of view of the source indicates that the object affected is part of a larger structure:

(55)   zá-ghú-zá   ďwàk   tá   mndrá-ní
       eat-D:SO-eat   termites OBJ   bottom-3SG
       'the termites have eaten its bottom' (the rest is there)

(56)   zá-ghú-zá   ďwàk   tá   dzúmá
       eat-D:SO-eat   termites OBJ   hay
       'the termites have eaten the hay' (of the roof)

In order to indicate that the "hay" is an entity in itself, not part of a larger structure, the object marker ná must be inserted. If the distal extension ghú is used after the object, that means that only part of the object is affected:

(57)   zà-ná-ghú-zá   ďwàk   tá   dzúmá
       eat-DEM-D:SO-eat   termites OBJ   hay
       'the termites have eaten part of the hay' (The hay is not a part of anything.)

(58)   drá-ghú-drá   tá   nìví
       burn-DEM-D:SO-burn OBJ   firewood
       'he burned firewood only' (The other things he did not burn.)

(59)   drà-ná-ghú-drà   tá   nìví
       burn-DEM-D:SO-burn OBJ   firewood
       'he burned a part of the firewood'

(60)   *sà-ná-ghú-sà*   *tá*   *ghzú*
       drink-DEM-D:SO-drink   OBJ   beer
       'he drank some beer' (there is beer left)

Cf.:

(61)   *sà-ghù-sà*   *tá*   *ìmí*   *á*   *xpú* [tímá xpù]
       drink-D:SO-drink   OBJ   water   GEN   flour
       'he drank the upper layer of the water and flour mixture [and the
       flour is left at the bottom]'

(62)   *zà-ná-ghú-zà*
       eat-DEM-D:SO-eat
       'he ate the top part of it' (e.g. the meat, but left the rice)

5.5. The distal extension with non-directional verbs of movement

The function of the distal extension it to code directionality for verbs that
code only the manner of movement. The verb *xwáyá* means "run", and it
cannot take a directional locative without a locative extension. With the
distal goal-oriented extension it codes running toward the goal:

(63)   *xwáyá-ghá-xwáyá*   *dá*   *xdí*
       run-D:GO-run   PREP   Hdi
       'he fled to Hdi' (he lives there now)

With the distal source-oriented marker, the verb means running from a
source:

(64)   *xwáyá-ghú-xwáyá*   *dá*   *xdí*
       run-D:SO-run   PREP   Hdi
       'he ran away to Hdi'

Similarly with the verb *ndrá* 'to fly, move fast': Without the extension the
verb indicates movement in general without an indication of directionality:

(65)   *ndr-ú-ndrà*   *tsá*   *mwátà*   *yá*
       fly-SO-fly   DEF   car   DEM
       'that car drove at high speed'

(66)   *ndrá-ghá-ndrá*
       fly-D:GO-fly
       'it flew away'

5.6. The distal extension with non-movement verbs

For non-movement verbs that do not have an allative *dá* or inner space extension *g*, only the high-tone marker *ghá* is allowed, coding movement toward a goal that is away from the place of speech:

(67)   *zá-ghá-zá*
       eat-D:GO-eat
       'he ate and went'

(68)   *sà-ghá-sà*
       drink-D:GO-drink
       'he drank and went'

(69)   *ngá   dà-gá-ghà-tà*
       NORM   cook-INN-D:PVG-REF:SUBJ
       'they should cook and bring it'

Non-movement verbs cannot occur with the low-tone *ghà*:

(71)   **zá-ghà-zá*
       eat-D:PVG-eat
       for 'he ate and came/went'

(72)   **sà-ghà-sà*
       drink-D:PVG-drink
       for 'he drank and came/went'

This constraint on the occurrence of the low-tone distal extension with non-movement verbs indicates that the default value for non-movement verbs is the event occurring at the place of speech.

The verb *nghá* 'see' may be followed by the distal extension *ghá*, and then the object of the verb is not the thing perceived. The verb acquires the meaning "concern, regard":

(73)   *yà   tá   nghá-nà-ghá   tá   lèkól*
       DEM   OBJ   see-DEM-D:GO   OBJ   school
       'that is all that concerns the school'

Additional evidence that the extension *gha* codes goal orientation is provided by the fact it cannot be used with verbs coding the point of view of source. Such cooccurrence would lead to an internal contradiction.

Consider the verb *fú* 'heat up, intransitive'. This verb cannot have goal-oriented marker *ghá* added:

(74) **fú-ghá-fá*
      heat-D:GO-heat
      for 'it heated up'

If the verb is used with an agent, it must have the goal-oriented marker *a* added:

(75) *fw-á-fwà*
      heat-GO-heat
      'he heated up something'

(76) *fwá-ghá-fwá*
      heat-D:GO-heat
      'he heated up something and went'

6. "Downward movement" extension *xà*

The extension *xà* indicates movement toward a lower place. In that function it has been recorded with two intransitive verbs only, *sá* 'come' and *lá* 'go':

(77) *lá-xà-ɗá*   *dá xdí   sàwárà   tà   kùzl-ìxà-tà*
      go-DOWN-1SG to Hdi   jaundice IMPF ache-1SG-IMPF
      ká-i   ndá   gólgì   íŋní
      COMP-1SG ASSC   family 1PL.EXCL
      'after I went to Hdi, I told my family that I was suffering from jaundice'

(79) *sá-xà   gà   xdí*
      arrive-DOWN PREP Hdi
      'he came from Hdi' (when the place of arrival is lower than Hdi, speaker located at the place of arrival)

(80) *ngh-í-n-ngh-íyù   tá   mótà   tà   lá-xà*
      see-AWAY-3-see-1SG OBJ   car   IMPF go-DOWN
      xàdà   á
      there   DEM
      'I saw a car pass down over there'

7. "Inner space orientation" extension *g*

7.1. Forms of the inner space extension

The inner space extension *g* is realized as [k] in syllable-final, word-internal position when not followed by another extension. When there is another extension, the inner space extension is followed by the goal-oriented marker *á* and the sequence is realized as *gá*. The goal-oriented marker *á* also codes movement toward a place previously mentioned in discourse. The form without the goal-oriented marker has the place of speech as the default place.

The verb before the extension *g* has a low tone, regardless of the inherent tone of the verb. We gloss the extension as "INN", for "inner space":

(83) [sà-k-sà]
      drink-INN-drink
      'he drank and came'

(84) [zà-k-zà]
      eat-INN-eat
      'he ate and came'

7.2. Functions of the inner space extension

The inner space extension codes an event with reference to some inner space, with the direction toward or away from the inner space. The bidirectionality is very important because in many other Chadic languages cognate forms code the ventive, i.e. movement toward the place of speech or another deictic center. The evidence for the bidirectionality with respect to the inner space is provided by the fact that the inner space may serve as a goal or a source of movement. Whether the inner space is the source or the goal is determined by the inherent characteristics of the verb and other extensions occurring with the verb. The default value of the inner space extension is the goal:

(85) *nə̀*   *tá*   *klà-gá-ghá-f-tà*   *tà*
      what   COM   take-INN-2SG-UP-REF:SUBJ   PREP
      ná   *fú*   *ná*   *nà*
      DEM   tree   DEM   Q
      'what brought you up here to this tree?

(86)   *kà*   *vrə̀-glá-gá-f-tà*   *tsá*   *m̀ndú-xà*
        SEQ   return-AGAIN-INN-UP-REF   DEF   man-PL
        'And those people again returned [to the place mentioned earlier in discourse]'

Inner space is always the source of movement if it is followed by the movement-out extension *p*:

(87)   *xwáyá-ghù*   *xáxə̀ŋ*   *tà*   *ghùrúm*   *má*
        run-D:SO   3PL   PREP   hole   COND
        hlə̀-và-gá-p-xà   *tá*   *xə̀n*
        go-APPL-INN-OUT-DOWN   OBJ   3PL
        'even if they escaped into a hole, he would make them come out'

(88)   *mántsá*   *də̀kɗə̀*   *tá*   *yà-gá-p-tá*
        also   Dikdi   COM   give birth-INN-OUT-REF
        lá   *də̀kɗə̀*
        COLL   Dikdi
        'also Dikdi begot the clan of Dikdi'

But the inner space extension may also code the source without the movement-out extension, as we will see.

7.3. The inner space extension with verbs of movement

The inner space extension can be added to verbs of movement when it codes the spatial orientation of the movement, toward or away from the inner space. Compare the following, coding movement out by virtue of the inherent meaning of the verb *hlî'yá* 'get up':

(89)   *Kà*   *hlî'íá-gá-tá*   *Xdì-xà*   *tà*   *ghùrùm*
        SEQ   get up-INN-REF   Hdi-PL   PREP   hole
        'And Hdi came out of the hole'

(90)   *kà*   *tsùà-gá-f-tá-tsí*   *tàa,*   *tàa,*   *tàa,*   *tá*
        SEQ   pull-INN-UP-REF-3SG   OBJ   OBJ   OBJ   OBJ
        rvérè
        lion
        'he pulled out Lion' (from a pit)

Cf.:

(91)   kà   tsùà-f-tá-tsí   tá   rvérè
        SEQ   pull-UP-REF-3SG   OBJ   lion
        'he pulled Lion' (but not from an inner space)

With the verb vrá 'return', the extension codes return toward the place
from which one left. The inner space extension has the goal-oriented
vowel á to code return to a place other than that last mentioned in dis-
course:

(92)   kà   vrà-gá-tá   ì   · ngax ngax
        SEQ   return-INN-REF   ASSC.PL   Ngah Ngah
        'Ngah Ngah and his people returned' (to Hdi; the last place men-
        tioned in discourse was Mokolo.)

The inner space extension is coded by [k] alone when the return is to the
last place mentioned:

(93)   kà   vrà-glà-k-tá   xàn . . .
        SEQ   return-AGAIN-INN-REF   3PL
        'and they returned again . . .' (to Hdi; the last place mentioned in
        discourse was Hdi.)

7.4. The inner space extension with non-movement verbs

The inner space extension adds the spatial orientation of movement. Here
are two examples from natural discourse and their variants with the inner
space extension omitted. The first example involves movement toward the
deictic center:

(94)   mbàɗ   ká-lù   kà   pghà-gá-p-tá   mbízà
        then   COMP-UH   SEQ   pour-INN-OUT-REF   bean dish
        'Then, the bean dish was poured out and brought.'
Cf.:
(95)   mbàɗ   ká-lù   kà   pghá-p-tá   mbízà
        then   COMP-UH   SEQ   pour-OUT-REF   bean dish
        'Then, the bean dish was poured out.'

(96)   wù-gá-ná-p-tá   ghùzú   tá   xàŋ
        take.PL-INN-DEM-OUT-REF   beer   OBJ   3PL
        'one brings them beer'

The following example involves movement out of an enclosed space:

(97)   *mbàɗ ká   krì   kà   klà-gá-f-tá   ìr-á*
        then COMP dog   SEQ   take-INN-UP-REF   eye-GEN
        zwáŋ-á   pákáwá ghúvì
        child-GEN   hyena
        'then Dog picked up an eye of a child of Hyena [from a pot].'

Omission of the inner space extension produces a grammatical sentence, but it cannot be applied to deictic centers with inner spaces:

(98)   *mbàɗ ká   krì   kà   klà-f-tá   ìr-á*
        then COMP dog   SEQ   take-UP-REF   eye-GEN
        zwáŋ-á   pákáwá ghúvì
        child-GEN   hyena
        'then Dog picked up an eye of a child of Hyena.' (e.g. from a table)

(99)   *tsá   lá   xámáyádzì   káy   kà   gì*
        def   COLL   Hamman Yaji   INTERJ   SEQ   immediately
        dzà-gá-p-tá   dúlá krámásá.
        kill-INN-OUT-REF   rifle
        'the people of Hamman Yaji immediately shot their rifles' [7]

7.5. Arguments within the scope of the inner space extension

When the extension is used with non-movement transitive verbs, the verbs could imply the movement of either subject or object. The movement of the subject is coded by the vowel *a* preceding the inner space extension:

(100)   *sà-gá-ghú-sà   tá   ghzú*
        drink-INN-D:SO-drink   OBJ   beer
        'he drank some beer and came'

The movement of the pronominal object is coded by the verbal root alone, i.e. without the vowel *a* or *u*:

(101)   *xgò-g-íɗá-ghà-xgà*
        call-INN-1SG-D:PVG-call
        'he called me and I came'

(102) tàlá   zàŋwá   tsá   yá   tá   màrà-n-tá
       exorcise demon   DEF   DEM   COM   show-3-REF
       xlə́-g-í-n-tá   índà   ghwádàk-á   skwì   mà
       gather-INN-AWAY-3-REF   all   bad-GEN   thing   PREP
       xgá   yá
       home   DEM
       'It is tàlá zàŋwá that shows that one has chased away all the bad
       things from the compound.'

7.6. Deictic center with the inner space extension

The default deictic center for movement toward an inner space is the place
established by the conversational context. The place itself does not have to
be overtly mentioned; it is the inner space extension that provides the
proper interpretation:

(103) ngá   dà-gá-ghà-tà   índà   grá-xà-ní
       NORM   cook-INN-D:PVG-REF:SUBJ   all   friend-PL-3SG
       tá   ghzú
       OBJ   beer
       'All of his friends should cook beer and bring it there.'
Cf.:
(104) ngá   dà-ghá-tà   índà   grá-xà-ní
       NORM   cook-D:PVG-REF:SUBJ   all   friend-PL-3SG
       tá   ghzú
       OBJ   beer
       'All of his friends should cook beer and take it away.'

Similarly in the following example, the deictic center is the place where
the speaker is:

(105) ká   tsà   m̀ghám   yá   kàyná   dzà'á
       COMP   DEF   chief   DEM   therefore FUT
       vrà-gá-ná-tá   tsá   màrkw-í-íŋní   ká-'á
       return-INN-DEM-REF   DEF   wife-1PL   COMP-3SG
       'The chief said: "I will make my wife return [to us]"' (low tone on
       the definite marker because it is a part of the subject phrase and
       follows the complementizer)

Omission of the inner space extension implies the return of the wife to her
own place:

(106) *ká   tsá   m̀ghám   yá   kàyná   dzà'á*
COMP DEF chief   DEM therefore FUT
vrà-ná   tá   tsá   màrkw-í-íŋní   ká-'á
return-DEM OBJ DEF wife-1PL   COMP-3SG
'The chief said: "I will make my wife return [to her place]"'

And, finally, this example, where the deictic center is the place where the speaker was:

(107) *kà   là-gá-ghà-tá-tsí   tá   hlrəŋ-á   fú*
SEQ dig-VENT-D:PVG-REF-3SG OBJ root-GEN tree
'She dug and brought a root of a certain tree'
Cf.:
(108) *kà   là-ghá-tá-tsí   tá   hlrəŋ-á   fú*
SEQ dig-D:PVG-REF-3SG OBJ root-GEN tree
'she dug a root of a certain tree and took it away'

The inner space extension *g* is related to the spatial specifier *gà* coding the inner space in locative adjuncts. In the following sentence, the same morpheme appears in both functions:

(109) *vrà-gá-f-vrà   gà   mókóló*
return-INN-UP-return PREP Mokolo
'he returned from Mokolo' (his place is higher than Mokolo)

8. The allative extension *dá*

The extension *dá*, which we gloss as "ALL", for "allative," can be added to both intransitive and transitive verbs. The verb before this extension, like the verb before the inner space extension *gá*, must have low tone. The extension codes movement toward a specific place or presence at a specific place other than the place of speech. The term *specific place* designates a place mentioned in discourse or pointed to in the environment of speech:

(110) *tsá   m̀ndú   tá   klà-dá-ghá-p-tà   yá   ná*
DEM man COM take-ALL-2SG-OUT-REF DEM DEM
grá-ghá   yà
friend-2SG COP
'the man who took you there is your friend'
Cf.:

(111) *tsá*   *m̀ndú*   *tá*   *kl-í-g-tà*   *yá*   *(ná)*
       DEF   man   COM   take-1SG-INN-REF   DEM   DEM
       grá-d̃á   *yà*
       friend-1SG   COP
       'the man who brought me here is my friend'

The evidence for the hypothesis about the meaning is provided by the fact that the extension occurs when the locative goal is marked as definite, i.e. previously identified in discourse:

(112) *hlì'yà-dá-m-tà-táŋ*   *dà*   *tsá*   *ghùrúm*   *yá*
       go-ALL-IN-REF-3PL   PREP   DEF   hole   DEM
       'when they entered the hole'

The extension *dá* codes the locative function of an unmarked noun phrase following the verb. In the following example there is no locative (or any other) preposition before the word *tví* 'place':

(113) *ɓxà-dá-gh-í*   *tví*   *tsá*   *wà*
       pass-ALL-D:PVG-1SG   place   DEF   NEG
       'I did not pass by there' (referring to a place mentioned before in discourse)

(114) *ɓx-í*   *tà*   *tsá*   *wà*
       pass:NEG-1SG   PREP   DEF   NEG
       'I did not pass there'

Even if the locative argument or adjunct does not have formal markers of definiteness or specificity, the extension alone codes such an adjunct as specific:

(115) *gàvà-dá-p-wá-gàvà*   *tà*   *hlərpú*   *ká-'á*
       move-ALL-OUT-PL-move   PREP   side   COMP-3SG
       ' "move to the side," he said'
       (Squirrel directing Lion and Elephant to move to a previously prepared place)

If the allative extension is omitted, the verb of movement does not mean movement to a specific destination:

(116)   gàvá-p-wá-gàvá   tà   hlárpú ká-'á
move-OUT-PL-move   PREP   side   COMP-3SG
' "move a bit," he said'

When used with non-movement verbs, the extension adds directional meaning. The direction is specific, to a place previously identified in discourse:

(117)   kà   á   ká-'á   ṅghà-dá-tà   ná
SEQ 3SG   COMP-3SG   look-ALL-REF COMP
zwàn-à-ní   mà   sígà
child:PL-GEN-3SG   PREP   pot
'And he saw that his children were in the pot.'

(118)   kà   pghà-dá-tà   dà   sígà
SEQ   put-ALL-REF   PREP   pot
'he put them in the pot'   (dá cannot be omitted)

One can omit a specific locative phrase from a clause with the extension dá, but one cannot omit the extension dá from a clause with a specific locative phrase:

(119)   mbàd́   ká-xə̀n   kà   wà-dá-p-tá   tsá   vàrà
then   COMP-3PL SEQ   take.PL-ALL-OUT-REF   DEF   beans
yá   dzághà
DEM   home
'they brought the beans home'

(120)   mbàd́   ká-xə̀n   kà   wà-dá-p-tá   tsá   vàrà
then   COMP-3PL SEQ   take.PL-ALL-OUT-REF   DEF   beans
yá
DEM
'they brought the beans there'

(121)   *mbàd́   ká-xə̀n   kà   wà-p-tá   tsá   vàrà
then   COMP-3PL SEQ   take.PL-OUT-REF   DEF   beans
yá   dzághà
DEM   home
for 'they brought the beans home' (or any other meaning)

When the extensions f 'movement up' or xà 'movement down' follow the extension dá, they code movement toward a higher or lower place:

(122) *tsghà-dá-f   xáxən   tá   sànì   lá-ghà-ní*
      put up-ALL-UP 3PL   OBJ   one   go-D:PVG-3SG
      mbàɗ   ká   kà   tsghà-dá-f-tá   sànì   zlíbí
      then   COMP   SEQ   send-ALL-UP-REF   one   bag
      'after they sent up one bag, they sent another bag.'

9. "Upward movement" extension *f(à)*

9.1. The form of the upward movement extension

The extension *f*, glossed as "UP", is realized as *fà* in word-final position. The evidence for the segmental and tonal structure of this extension is provided by clauses where it is followed by possessive subjects. Verbal nouns can be derived from verbs followed by the upward extension. From the verb *lá* 'go' followed by the extension *f*, the verbal noun is *lá-f-ì* 'climbing, going up'. When the possessive pronoun is added to this noun, the genitive marker assumes the tone of the last syllable of the noun, which is low:

(123) *lá-f-à-ɗá   dá mókólò . . .*
      go-UP-GEN-1SG   to Mokolo
      'When I went to Mokolo . . .'

The extension must be preceded by the goal-oriented marker *a*:

(124) *kà   xlá-f-tá   zwàn-à   krì*
      SEQ   gather-UP-REF   child:PL-GEN   dog
      'and he gathered the children of Dog'

(125) **kà   xlá-f-tá   zwàn-à   krì*
      SEQ   gather-UP-REF   child:PL-GEN   dog
      for 'and he gathered the children of Dog'

The verb retains its tone before the extension *f*:

(126) *pghà-f-pghà*
      accompany-UP-accompany
      'he accompanied him'

(127) *pghá-f-pghá*
pour-UP-pour
'he poured on something'

9.2. The functions of the upward movement extension

The extension *f* adds the meaning of upward movement to verbs of movement and non-movement alike:

(128) *vrà-gá-f-vrà*   *gà*   *mókóló*
return-INN-UP-return   PREP   Mokolo
'he returned from Mokolo' (his place is higher than Mokolo)

(129) *xnà-dá-f-xná-lú*   *tá*   *hlà*
cut-ALL-UP-cut-UH   OBJ   cow
'they slaughtered a cow [and took it to a place at a higher level]'

With the verb *hlà* 'to fall' the extension adds the meaning "to fall upon something, to find":

(130) *hlà-f-hl-í*
fall-UP-fall-1SG
'I found it by chance'

(131) *hlà-hl-í*
fall-fall-1SG
'I fell down'

With verbs that involve movement of an object the extension indicates the direction in the movement of the object:

(132) *kà*   *tsùà-gá-f-tá-tsí*   *tàa,*   *tàa,*   *tàa,*   . . .   *tá*
SEQ   pull-INN-UP-REF-3SG   OBJ   OBJ   OBJ   OBJ
rvérè
lion
'he pulled up Lion'

(133) *xlá-f-xlà*   *tá*   *zwàn-à*   *krì*   *kà*
pick up-UP-pick up   OBJ   child:PL-GEN   dog   SEQ
xwáyá
run
'he picked up the children of Dog and ran'

With non-movement verbs the extension *f* describes the manner of the verb. Opening a covered object involves movement up:

(134) *kà*   *gúná-ná-f-tá*   *sígà*
       SEQ   open-DEM-UP-REF   pot
       'and he opened the pot'

Opening the door cannot involve the upward movement extension *f*.

(135) *kà*   *gúná-ná-tá*   *tghà*
       SEQ   open-DEM-REF   door
       'and he opened the door'

With some verbs, such as *díyá* 'germinate', *hlíˈyá* 'get up', and *hlgà* 'plant', the upward movement extension *f* is an obligatory component of the verbal complex:

(136) *hlàgà-f-hlàgá-xàn*   *tá*   *hlàgú* *àmá* *díyá-f*   *á*
       plant-UP-plant-3PL   OBJ   plant   but   germinate-UP   NEG
       xìyá   *wù*
       corn   NEG
       'They planted, but the corn did not germinate.'

(137) *díyá-f-díyá-tsí*   *yá*   *ná*   *àmá* *tà*
       germinate-UP-germinate-3SG   DEM   DEM   but   IMPF
       ghúálá-kú   *ghúálá-kú*
       dry-ABS   dry-ABS
       'It has germinated; however, it dries up'

(138) *kà*   *hlíˈyá-f-tá*   *zvàxw* *kà*   *dáwá-f-tá*   *ntfàn*
       SEQ   leave-UP-REF   bat   SEQ   ask-UP-REF   glue
       dáwá-f-xà-tá   *dàwrà*
       ask-UP-ALSO-REF   cloth
       'The bat left and asked for glue and also for clothing'

With many verbs, the extension displays a semantic broadening of prepositions "on" or "up", such as the coding of completeness of the event, achievement of the intended result, or total affectedness of the object, similar to English "up" in "cut up", "fill up", "eat up":

(139)   *ndà-f-ndà*
swallow-UP-swallow
'he swallowed everything' (fast)

(140)   *ndà-'á-ndà*
swallow-PART-swallow
'he swallowed some'

(141)   *bátá-f-bátá*
court-UP-court
'he courted a girl' (and he was successful)

Cf.:

(142)   *bátà-ŋ-bátà*
court-TENT-court
'he tried to court a girl'

A likely source of the grammaticalization of the extension *f* is the verb *fá* 'put':

(143)   *kà   fá-t-í   tá   zlíb-á-ɗá   mà   xgá*
SEQ   put-REF-1SG   OBJ   bag-GEN-1SG   in   house
'I put my bag in the house'

(144)   *kà   fá-f-t-í   tá   xàrí   tà   pálà*
SEQ   put-UP-REF-1SG   OBJ   intestine   PREP   stone
'I put an intestine on a stone' (a procedure expected to prevent a mishap)

10. The "movement into" extension *m*

The extension *m(á)*, which we gloss as "IN", indicates movement inside a locative goal. This is fundamentally different from the inner space extension, which is oriented with respect to the inner space of the source or goal.

The movement-into extension adds the spatial orientation of movement. The reference point for the spatial ortientation may be the locative object:

(145)   *vrá-m-vrà   dà   vlà-ní*
return-IN-return   to   place-3SG
'it returned to its place'   (e.g. a dislocated bone)

(146) *vrá-m-vrà*   *dà   lèkól*
return-IN-return   to   school
'he returned to school'

(147) *kd'éri   kà   lá-m-ì   dà   lwá   tsá   m̀ndú-xà   yá*
Kderi SEQ   go-IN-REF PREP place DEF   man-PL   DEM
'and Kderi entered the village of the people'

The reference point of the spatial orientation, however, does not have to be the locative object or adjunct:

(148) *àw,   lá-m-là   dá   d'ífà-úgh-tà*
INTERJ   go-IN-go   PURP   hide-SO-REF
'go in and hide yourself'

(149) *kà   và-m-tá   vú*
SEQ   light-IN-REF   fire
'he lit the fire inside [it]'

(150) *ngá   lá-mà-ní   ndá   tà   zlàngwád'àk*
NORM   go-IN-3SG   ASSC   PREP   back entrance broken in the wall
'She should enter through the back of the compound.'

The extension may follow other extensions, such as *dá* and *gá*:

(151) *z-ú-zà   kà   pd'à-dá-m-tà   kì'yá*
eat-SO-eat   SEQ   leave-ALL-IN-REF   small
'he ate outside and the rest [of the food] was brought inside'

(152) *sà-w-í   tà-gá-m-tà   tá   ìmí*
arrive-SO-REF   draw-INN-IN-draw   OBJ   water
'fetch the water and bring it here!'

11. "Movement out" extension *p*

11.1. The forms of the movement-out extension

Like all locative extensions, the movement-out extension, glossed "OUT", must be preceded by the goal-orientation marker *a*. The verb retains its underlying tone before the extension *p*.

(153) *sá-p-sà*
       arrive-OUT-arrive
       'he came out'

(154) *zá-p-zà*
       eat-OUT-eat
       'he took something out and ate it'

(155) *sà-p-sà*
       drink-OUT-drink
       'he emptied a container by drinking'

The movement-out extension has two phonetic realizations: voiceless *p* and voiced *b*. Almost all verbs have the extension marked by the voiceless variant. In addition to the examples above, compare the following:

(156) *skwá-pà   á   í   wà*   [*skwápíwà*]
       buy-OUT   NEG   1SG   NEG
       'I did not sell'

The voiced realization occurs only with the verbs *sá* 'come', and *lá* 'go':

(157) [sá-b-í   wà]   (←   *sá-bà   -á-í   wà*)
       arrive-OUT:NEG-1SG   NEG
       'I did not come out'   (syllabic break between b and í)

(158) *lá-b-à-ì   wà*   or   *lá-bì-í wà*
       go-OUT-NEG:1SG   NEG
       'I did not go out'

(159) **lá-p-à-í   wà*
       go-OUT-NEG:1SG   NEG
       for 'I did not go'

The different behavior of these verbs with respect to the extension *p* parallels their different behavior with respect to the referential marker in sequential clauses, which is *i* rather than *ta*. But even with these two verbs, when the extension is followed by a voiceless consonant, it is voiceless, in accordance with the constraint on the feature voice in clusters:

(160) sá-b-s-í . . .   [sápsí]   jíbìl
       arrive-OUT-go-1SG   outdoors
       'I went out'

11.2. The functions of the movement-out extension

When used with verbs of motion, the extension indicates movement out from a deictic center, not necessarily an enclosed space:

(161) kà   gàvà-dá-p-tá-xən
       SEQ   move-ALL-OUT-REF-3PL
       'they moved out'

(162) ngá   sá-bà   tsá   mìndú yá   jíbìl   ndá
       NORM   go-OUT   DEM   man   DEM   outdoors   ASSC
       lgùt-á   ngrá   tà   vghá-ní
       cloth-GEN black   PREP   body-3SG
       'The man should come out wearing black clothes.'

With transitive verbs that do not involve movement, the extension codes the removal of something from an object:

(163) àsé (Hau.)   là-p-là   tá   vəl   mà   xàdík
       while   dig-OUT-dig   OBJ   place   PREP   ground
       'While he previously dug up a hole in the ground'

The extension also codes the onset of an event:

(164) tà   xúlá   tsá   kà   ghùɓàsá-p-tá   lá   jíjì
       PREP   back   DEF   SEQ   laugh-OUT-REF   COLL   in-laws
       'Afterwards the in-laws burst out laughing.'

When the "OUT" extension is added to the verb "buy", it codes the notion of "selling", since the object is being taken away from its place:

(165) skwá-p-skwà   tá   hlà   tà   lúmá
       buy-OUT-buy   OBJ   cow   PREP   market
       'he sold a cow at the market'
Cf.:
(166) skwá-skwà   tá   hlà   tà   lúmá
       buy-buy   OBJ   cow   PREP   market
       'he bought a cow at the market'

The extension has become a part of many verbs, where its contribution
to the total meaning cannot be easily isolated, e.g. the verb *ndàná* 'think':

(167) *ndàná-p-xà*   *kà*   *màndú-xà* . . .
       think-OUT-DOWN   like   man-PL
       'he thought about people . . .'

The extension 'OUT' also has the non-locative meaning of surpassing a
certain norm:

(168) *xàɗú*   *zwaŋ*   *tà*   *màlá-p-tá*   *classe 3*   *wà*
       NEG   child   IMPF   be big-OUT-REF   grade (Fr.) 3   NEG
       'there is no child who has passed grade 3' (written source)

(169) *kà*   *yàwú*   *ndà-kw-à-gá-p-tà*   *xdì* . . .
       SEQ   time   exist-ABS-INN-OUT-REF   Hdi
       'Ever since Xdi has existed . . .' (written source)

Like the preverbs coding the direction out of the deictic center in Slavic
languages, the extension 'OUT' is used with verbs coding change from one
object into another:

(170) *tà*   *xúlá*   *tsá*   *mbaɗ*   *ká-ŋnì*   *kà*
       PREP   back   DEF   THEN   COMP-1PL.EXCL   SEQ
       mbàɗá-pá-f-tá   *xgá*   *tsa*   *gúyá*
       change-OUT-UP-REF   name   DEF   association
       'afterwards we changed the name of the association'

12. The extension *rà*

The extension *rà* occurs as the last in the sequence of all extensions. Since
there were only two instances of this extension in our texts, the function
of this extension remains to be explained:

(171) *ksà-dá-p-rà-lú*   *tá*   *tv-á*   *púrkútú ndzúm-á ní*
       touch-ALL-OUT-XXX-UH   OBJ   road-GEN   story-GEN-3SG
       'following the stages of its history . . . '

(172) *kábgà*   *nghà-dá-p-rà-tsí*   *tá*   *ɗáŋgwà* . . .
       because   see-ALL-OUT-XXX-3SG   OBJ   poverty
       'because he evaluated the poverty . . . '

13. Conclusions

The system of locative extensions serves several functions. One function is to code the directional orientation of movement with respect to the deictic center. For the distal extension there is a distinction between source and goal orientation, and for goal orientation there is an additional distinction between the goal-oriented point of view and the point of view other than the goal, coded by tonal changes. The locative extensions allow for a description of movement along the vertical dimension, from lower to higher or from higher to lower. They also allow for the description of movement from inside out or from outside in. One extension codes movement with respect to the inner space. One extension codes allative movement toward a referential place. Several extensions code the spatial orientation of the movement, such as up, down, and out. Several extensions can occur with the same verb, each extension coding a different parameter with respect to direction, spatial orientation, specificity of the locative goal, and the manner in which the event is performed.

Some extensions derive from prepositions: *dá, gá, m.* Other extensions derive from verbs: *f* 'up' from the verb *fá* 'put'. We have no information about the possible source of the distal extension *gh.*

Although the primary function of the extensions is locative, many extensions have acquired secondary functions.

Chapter 11

Modalities

1. Introduction

The speaker's attitude(s) toward a proposition is coded by verbal inflections, including tone; by affixes; and, with respect to the nature of complement clauses, by clausal order. The discussion below is divided into a description of epistemic and deontic modality coding. The issues involved in complement clauses are discussed in chapters dealing with complementation. We consider interrogatives to be a type of epistemic modality, the speaker's desire to find out the truth of the proposition or to obtain an answer about a specific component of the proposition.

2. Epistemic modality

Hdi belongs to those languages where the speaker's belief in the truth of the proposition constitutes the default modality of the unmarked indicative clause (cf. Frajzyngier 1985f, 1987b). The evidence for this default meaning is provided by the meaning of marked moods such as hypothetical or interrogative, which express doubt in truth, hedging about truth, or inquiry about truth. The discussion of the marked modalities thus provides evidence for the meaning of the clause in the indicative mood.

3. Hypothetical mood

There are several means of marking hypothetical modality. Each means has a different scope and different tense properties.

Hypothetical modality may be coded by the clause-final particle ɓà. The scope of the hypothetical may be delimited by the clause-initial marker bá (note that the consonant is not glottalized):

(1)   *bá*   *lá-b-lá*   *ɓá*
       HYP   go-OUT-go HYP
       'perhaps he went'

(2)   ká   ùvá   mántsá   bá   tà   dzà-í   ɓá ...
      COMP   cat   COMP   HYP   IMPF   go-1SG   HYP
      'Cat said: I might go but . . .'

(3)   ó   ìr-á   dzàgùlàmà   d-ú'ú   ɓá
      INTERJ eye-GEN   large white beans   father-1DU   HYP
      mántsá   ká   pákáwá ghúvì
      like that COMP   hyena
      ' "Oh, perhaps this is the eye of the white beans of our father,"
      said Hyena.'

The hypothetical mood may also be coded by the verb kúmà 'want' in
the imperfective followed by a complement clause:

(4)   yáwà   mtá   tá   dá-ní   mà   m̀ndú tà   kúm-ày
      well   death   PREP   father-3SG PREP   man   IMPF   want-PO
      tá   màrà-n-tà   kà   zlày   ná   ndá   gl-íyù
      OBJ   show-3-REF   SEQ   COMP   COMP   STAT   grow-1SG
      tàmá
      already
      'Well, the death of one's father would mean that he is already an
      adult.'

Hypothetical modality may also be marked by the form má. This form
is followed by the referential past tense marker sí, followed by the verb:

(5)   ká   ùvá   mántsá   má   sí   tà
      COMP   cat   COMP   HYP   PAST   IMPF
      dzá-í   mndán . . .
      go-1SG   but
      'Cat answered: I might go but . . . '

(6)   má   tà   dzà-í   mndán   ná   dún   ká
      HYP   IMPF   go-1SG   but   COMP   except 2SG
      dzà'á   xgà-n-tá   rvérí   ká   gwì'yán   ndá   yàghí
      FUT   call-3-REF lion   COMP   elephant   ASSC   squirrel
      ' "I would go, on the condition that you do not invite Lion," Ele
      phant said to Squirrel.'

4. Epistemic adverbs

Epistemic adverbs, unlike locative adverbs, occur in clause-initial position. The adverb *pàtək* 'perhaps' has been recorded only in the hedging function with respect to past events or with respect to some referential proposition (both examples from written sources):

(7) pàtək   ndá   mà   ghwà   tá   bgàhlà,
     perhaps ASSC   IN   river   PREP bgahla
     'perhaps in the direction of the river Bgahla'

(8) pàtək   mà   vàkú   1952   pàtək   mà   vàkú   1958
     perhaps PREP year   1952   perhaps PREP year   1958
     kú-lù
     COMP-UH
     'perhaps in the year 1952, perhaps in the year 1958, they say'

The modal phrase *kà wáyà* 'perhaps' followed by the complementizer *ká'a* has been recorded only with respect to future, hypothetical propositions:

(9) kà wáyà   ká-'á   màmú . . .
     perhaps   COMP   exist
     'perhaps there will be . . . '

Some epistemic adverbs have a reduplicated form, indicating that they are derived from another lexical category. We postulate such a derivation on the basis of analogy with other reduplicative derivations, even though our data do not always contain the lexical item from which the adverb is derived. An example is *xótxótà* 'certainly':

(10) kà   xótxótà   dzà'á   skwá-tà   lgùt-á-ní
      SEQ   certainly FUT   buy-REF   cloth-GEN-3SG
      màxtsím
      tomorrow
      'certainly he will buy his clothes tomorrow'

(11) xár   kà   ksú-tá-xəŋ   tá   grá   kà
      until SEQ   touch:SO-REF-3PL OBJ   friend   LIKE
      xót xótà   ndá   gawa
      true   ASSC   Gawa
      'until they became true friends of Gawa' (written sources)

5. Imperative modality

Within the deontic mood, there is a further distinction between a direct order to the second person, singular or plural, and an indirect obligation (subjunctive) with respect to all persons, including the second person.

5.1. The imperative stem

The segmental and tonal structure of the simple verb in the imperative is identical with the segmental and tonal structure of the verb in the indicative mood. There are two types of imperative addressees: singular (unmarked) and plural (marked). The only subject pronouns that can be added to the imperative are first-person dual inclusive and first-person plural inclusive. The imperative forms thus make a distinction between second-person singular and plural and first person dual inclusive and first-person plural inclusive. The first-person pronouns can be added to the simple or the reduplicated stem.

Imperative	Gloss
lá	'go!'
klá	'take it!'
zlghà	'take it!
dà	'cook it!'
kátá	'help!'

Singular addressee:

(12) *xgà*   *tá*   *krì*
      call   OBJ   dog
      'call the dog!'

Plural addressee:

(13) *ghl-í-d-ìŋ-wá-ghlá*   *tá*   *tví*   *kà*
      let-AWAY-1SG-3-PL-let   OBJ   road   SEQ
      mná-ghúná-t-í
      tell-2PL-REF-1SG
      'Let me tell you . . . '

First-person plural inclusive imperative:

(14)   *z-ú-mà*   *mbízà*   *kùrúkù*
      eat-SO-1PL.INCL   bean dish   first
      'Let us first eat the bean dish.'

Examples of the use of the imperative stem with other persons are given below in the section 6.2.

5.2. The perfective in the imperative

The reduplicated form of the verb is used in the imperative to code bounded events. There are different constraints for the use of reduplicated intransitive and transitive verbs in the imperative. Intransitive verbs may be simply reduplicated without any additional morphemes:

(15)   *xnà-xnà*
      'lie down!'

(16)   *lá-là*
      'go down!' (speaker at the same place as the hearer)

(17)   *là-là*
      'dig up roots!'

(18)   *sná-snà*
      'listen!'

Evidence for the perfective meaning of the reduplicated form is provided by the fact that it cannot be used to code durative events. One cannot use the reduplicated form with the plural form *xànà* 'sleep!' of the verb *xnà* 'lie down'. The reduplicated form cannot be used with adverbs coding duration:

(19)   *dà-dà   *tá*   *ghzú*   *mà*   *fitík*   *xkən*
      cook-cook   OBJ   beer   in   day   three
      for 'cook beer for three days'

One can use an extended period of time with a reduplicated verb, but the time is treated as one unit:

(20)   *dà-dà*   *tá*   *ghzú*   *mà*   *fìtík*   *xkǝn*
        cook-cook   OBJ   beer   in   day   three
        'she cooked beer within three days'

Independent pronouns may follow the imperative in contrastive focus constructions. The independent pronouns in the imperative modality, however, constitute a separate phrase, as evidenced by the fact that the verb ends in a low tone before pronouns. Recall that in the indicative mood if the subject follows the verb, the verb ends in high tone, a characteristic of the phrase-internal position.

(21)   *nzànzà*   *kághá*   *kà*   *lá-b-l-ìyù*   *ká*   *krì*
        remain   2SG   SEQ   go-OUT-go-1SG   COMP   dog
        ' "You stay, I should go," said Dog.'

(22)   *ks-íxà-ksá*   *tá*   *skwì*   *tà*   *kǝl*   *sárák*   *kà*
        take-1SG-take   OBJ   thing   PREP   take   stick   SEQ
        ghzlá-xá   *mndú,*
        chase-DOWN   man
        'do for me what sticks do to maintain discipline over man' (written source)

5.3. Object coding in the imperative

The imperative differs from the indicative mood in the coding of the object. There is an interesting correlation between the reduplication of the verb, extensions, and the way the object is marked. If there are no extensions to the verb, the object is coded by the preposition *tá*, as in the indicative mood:

(23)   *ghùɓá*   *tá*   *sígà*
        wash   OBJ   pot
        'wash the pot!'

(24)   *ksá*   *tá*   *mbǝgá*
        catch   OBJ   mouse
        'catch a mouse!'

If the verb is reduplicated, the object is also marked by the preposition *tá*:

> ghùɓ-í-n-ghùɓá   tá   sígà
> wash-AWAY-3-wash OBJ pot
> 'wash the pot!'

If there is an extension to the verb but the verb is not reduplicated, the object is marked only by the position following the verb:

(25)   *mbsá-f*   *sígà*
           cover-UP pot
           'cover the pot!'

(26)   *mbsá-f   *tá*   *sígà*
           cover-UP OBJ pot
           for 'cover the pot'

(27)   *ghùɓ-ín*   *sígà*
           wash-AWAY pot
           'wash the pot!'

> *ghùɓ-ín   *tá*   *sígà*
> wash-AWAY OBJ pot
> for 'wash the pot'

(28)   *ksá-f*   *mbàgá*
           catch-UP mouse
           'catch a mouse'

(29)   *ksá-f   *tá*   *mbàgá*
           catch-UP OBJ mouse
           for 'catch a mouse'

The coding of the object in the imperative mood is different from the coding of the object in the subjunctive mood.

5.4. Number distinction in the imperative

The plurality of the addressee in the imperative is marked by the form *wá* (the tone is lowered in phrase-final position) suffixed to the simple form of the verb or infixed in the reduplicated form:

(30) s-ù-wá-sà   sà-wá
      drink-SO-PL-drink
      'drink!' (plural addressee)

      sá-wá-sá   sá-wá
      arrive-PL-arrive
      'come down!'

(31) xwáy-wá-xwáyá   tá   xwáyá ká   xəŋ
      run-PL-run   OBJ   run   COMP 3PL
      ' "Run away," they said'

(32) lá-wá-lá   dà   ghəŋg-á   xàɗík   dá
      go-PL-GO   PREP   head-GEN   world   PURP
      kás-ì-ɗí-k-tá   mìndú-xà, . . .
      catch:PL-AWAY-1SG-INN-REF   man-PL
      'Go into the world in order to bring me men . . . '

If the verb has extensions, the plural imperative marker occurs after the extensions:

(33) z-ú-wá-zá
      eat-SO-PL-eat
      'eat everything, empty your dishes!' (plural)

(34) zá-vá-wá-zá
      eat-APPL-PL-eat
      'eat everything, empty your dishes!' (plural)

(35) kl-í-g-í-ɗá-ghà-wá   kɗìx-á-ɗà,   ká-'á
      take-EP-INN-AWAY-1SG-GO-PL   donkey-GEN-1SG COMP-3SG
      ' "Bring me my donkey," he said'

In a sequence of verbs in the imperative mood, the plurality of the verb is coded only with the first verb. The second verb is, however, followed by the independent second-person plural pronoun:

(36) zá-wá kà   dzà'á kúnì
      eat-PL SEQ   go   2PL
      'eat and go!'

(37)   zá-wá kà   sà   kúnì
        eat-PL SEQ   drink   2PL
        'eat and drink!'

5.5. Politeness and the imperative modality

Politeness in the imperative is coded through the clause-final particle *bá*, the same marker that codes the hypothetical mood:

(38)   ńghá   t-íí   bá
        look   OBJ-1SG   HYP
        'look at me, wouldn't you'

(39)   lá-m-là   dá   ńghá-tà   mà   tùghwázàk
        go-IN-go   PURP   look-REF   PREP   hibiscus
        xàd   yà   bá   ká'-á   ndá   ùvá
        here   DEM   HYP   COMP-3SG   ASSC   cat
        'He told Cat, "Enter into this hibiscus and eat what is inside." '

6. Subjunctive modality

6.1. The form of the subjunctive construction

Subjunctive modality as used in the present work refers to the coding of obligation with respect to all persons, including the second person. There are two types of subjunctive modality: One codes obligation with respect to a referential subject or a specific situation; the other codes obligation with respect to an unspecified subject or an unspecified situation.

Subjunctive constructions share with sequential clauses the sequential marker *kà*. There are two important differences between the clause marked for subjunctive modality and the sequential clause: The clause with sequential modality coding the mood of obligation may be the first clause in a sequence. A sequential indicative clause cannot be the first clause in a sequence. In sequential clauses in the indicative mood, which also have the marker *kà*, the verb cannot be reduplicated. In the indicative mood the third-person singular subject is unmarked with the reduplicated form of the verb. In addition to the marker *kà*, the subjunctive is marked by the low tone on verbal extensions and on the referential marker *tà*. If the subject pronoun is the first morpheme after the verb, it has low tone. Otherwise subject pronouns have high tone. We gloss *kà* as "SEQ" in order to

maintain the uniformity of glossing in the grammar. The identity of the sequential marker and the marker of obligation obtains also in other Chadic languages (Frajzyngier 1993, 1996).

All arguments in a subjunctive modality clause are marked as in the indicative mood. The subjunctive mood can apply to two aspects: imperfective and perfective.

6.2. The subjunctive mood in the independent imperfective aspect

The imperfective subjunctive mood is marked by the goal-oriented marker *a* following the verb. The vowel *a* assumes the tone of the verb. In the indicative mood of the imperfective aspect the verb has no vowel other than the epenthetic schwa:

(40)   *kà   zá   Pghìntà*
SEQ   eat   Phinta
'Phinta should eat'

(41)   *kà   sà   Pghíntà*
SEQ   drink   Phinta
'Phinta should drink'

Compare the sequential clause:

(42)   *kà   zə̀   Pghìntà*
SEQ   eat   Phinta
'and Phinta ate'

(43)   *kà   sə̀   Pghìntà*
SEQ   drink   Phinta
'and Phinta drank'

The monosyllabic C(C)V subject pronouns, i.e. third-person singular *tsí*, second-person singular *ká*, first-person plural inclusive *mú*, and first-person exclusive *ŋní*, which have high tone in the indicative mood, have low tone in the subjunctive mood:

(44)   *kà   zá-tsì   (tá   skwì)*
SEQ   eat-3SG   OBJ   food
'let him eat!'

Cf.:

(45) *kà*   *zɔ́-tsí*   *tá*   *skwì*
      SEQ   eat-3SG   OBJ   food
      'and he eats'

(46) *kà*   *kátá-tsì*   *tá*   *í* [tí-í] *kɗà*   *ghàlám*
      SEQ   help-3SG   OBJ   1SG   end   dry season
      'he should help me next year'
Cf.:
(47) *kà*   *kát-ìxà-tá-tsí*
      SEQ   help-1SG-REF-3SG
      'and he helped me'

Second-person singular:

(48) *kà*   *zá-kà*   *(tá*   *skwì)*
      SEQ   eat-2SG   OBJ   food
      'let him eat!'
Cf.:
(49) *kà*   *zɔ́-ká*   *tá*   *skwì*
      SEQ   eat-2SG   OBJ   food
      'and he eats'

(50) *kà*   *kátá-kà*   *tá*   *í*   *kɗà*   *ghàlám*
      SEQ   help-2SG   OBJ   1SG   end   dry season
      'you should help me next year'
Cf.:
(51) *kà*   *kát-ìxà-tá-ká*
      SEQ   help-1SG-REF-2SG
      'and you helped me'

First-person plural inclusive:

(52) *kà*   *zá-mù*
      SEQ   eat-1PL.INCL
      'we should eat!'
Cf.:
(53) *kà*   *zɔ́-mú*
      SEQ   eat-1PL.INCL
      'and we eat'

The first-person dual subject, which is bisyllabic *úú*, has the second syllable with low tone in subjunctive, but with high tone in the indicative:

(54)   *kà   zú'ù*
    SEQ   eat-1DU
    'let us eat!'

(55)   *kà   zú'ú*
    SEQ   eat-1DU
    'and we eat'

First-person singular subject:

(56)   *kà   zí   (tá   skwì)*
    SEQ   eat-1SG   OBJ   food
    'let me eat!'
Cf.:
(57)   *kà   zí-í*
    SEQ   eat-1SG
    'and I eat'

The tone of the second-person plural subject, which is always high, is low in the subjunctive:

(58)   *kà   wùdá-kùnì   tá   wùdá   ká-'á*
    SEQ   fight-2PL   OBJ   fight   COMP-3SG
    'he said that you (PL) should fight.'

(59)   *kà   wùdə́-kúní   tá   wùdá   ká-'á*
    SEQ   fight-2PL   OBJ   fight   COMP-3SG
    'and he said that you fight'

The tone of the third-person plural subject, which is always low, remains low in the subjunctive mood, but the subjunctive function is coded by the goal-oriented vowel *a* following the verb:

(60)   *kà   wùdá-xən tá   wùdá   ká-'á*
    SEQ   fight-3PL OBJ   fight   COMP-3SG
    'he said that they should fight.'

(61)   *kà   wùdə́-xən tá   wùdá   ká-'á*
    SEQ   fight-3PL OBJ   fight   COMP-3SG
    'and he said that they fight'

The evidence that the vowel *a* codes the subjunctive mood in the imperfective aspect and is not simply a part of the verbal stem is provided by the phonetic form of the absolutive marker *kú* in the imperfective subjunctive. It is realized as [kwà], labialization being the evidence of the *kú* + *a* fusion:

(62)   *kà   drá-kw-á-tsì   mà   lúmá*
        SEQ   burn-ABS-3SG in   market
        'it should burn for one week' (the borrowed word *lúmá* 'market' [Ful.] is a handy expression for "week" because markets are held weekly)

The negative subjunctive in the imperfective is coded by the form *xàdˀ*, which also codes the negative imperfective in the indicative mood. If there is a referential marker added to the verb, the marker has low tone in the subjunctive mood. The third-person singular is not overtly marked in the negative subjunctive:

(63)   *xàdˀ   tà   xàn-tà   wà*
        NEG   IMPF lie:PL-REF:SUBJ NEG
        'he should not sleep'

(64)   *xàdˀ   tà   xwáyá-tà   wà*
        NEG   IMPF run-REF:SUBJ   NEG
        'he should not run it'

If the verb has an extension or an object pronoun, it must have a referential marker *tà*. Unlike in indicative modality, the referential marker has low tone:

(65)   *kà   mbəl   sanà-n-tà   índà   mndú-xà*
        SEQ   xxx   know:PL-3-REF:SUBJ all   man-PL
        'so that everybody knows it [the history of Hdi people]' (written sources)

Subject pronouns following the sequential marker have high tone:

(66)   *kà   hlì'à-dá-p-tà-mú*   *mà   ná*
        SEQ   leave-ALL-OUT-REF:SUBJ-1PL   PREP DEM
        xgá   ná
        house DEM
        'we need to leave this house'

(67)   kà   hl-úwá-ghá-tà-tsí
        SEQ   find-1DU-D:GO-REF:SUBJ-3SG
        'and he should find the two of us'
Cf.:
(68)   kà   hl-úwá-ghá-tá-tsí
        SEQ   find-1DU-D:GO-REF-3SG
        'and he found the two of us'

6.3. The perfective aspect and subjunctive modality

The perfective aspect in the subjunctive may be coded solely by the referential marker *ta*. The evidence for the perfective function of the referential subjunctive marker *tà* is provided by the fact that it cannot occur together with an adverb coding a durative situation:

(69)   kà   wùdá-tà-xən   tá   wùdá   *(xá   vàkú   xìs)
        SEQ   fight-REF:SUBJ-3PL   OBJ   fight   during   year   two
        'they should fight the fight *[for two years]'
Cf.:
(70)   kà   wùdá-tá-xən   tá   wùdá
        SEQ   fight-REF-3PL   OBJ   fight
        'and they fought the fight'

The perfective aspect may also be coded by the reduplicated verb. The function of the reduplicated verb (as opposed to the referential marker *tà*) is to code the proximity of the event to the time of speech or some other time established in the discourse. The evidence for this hypothesis is provided by the fact that the reduplicated form cannot have a remote time adverb following it, while the simple verb in the subjunctive may have remote time reference:

(71)   kà   kát-ìxà-kátá-tsí   *kdá   ghàlám
        SEQ   help-1SG-help-3SG   end   dry season
        'he should help me'

(72)   kà   kátá-tsì   tá   í   kdá   ghàlám
        SEQ   help-3SG   OBJ   1SG   end   dry season
        'he should help me next year'

(73) kà   ndá   ṅghá-kà   ná   kà   mná-ná-tà
      SEQ   STAT   see-2SG   COMP   SEQ   tell-DEM-REF
      ká   kà   kát-ìxà-kátá-tsí   káá
      OMP   SEQ   help-1SG-help-3SG   COMP
      'when you see him, tell him that he should help me'

Discourse contexts where the reduplicated subjunctive form is used also indicate the time proximity of the action/event:

(74) nzànzà   kághá   kà   lá-b-l-íyù   ká   kṛì
      remain   2SG   SEQ   go-OUT-go-1SG   COMP   dog
      ' "You stay, I should go," said Dog.'

6.4. The subjunctive in equational clauses

The subjunctive mood in equational clauses is coded by the predicate followed by the complementizer ká, followed by the subject of the clause. If the subject is pronominal, the pronouns are drawn from the verbal set, and they have low rather than high tone:

(75) xdí   ká-tsì
      Hdi   COMP-3SG
      'she should be Hdi' (talking about choosing a wife)

(76) xdí   ká-xə̀n
      Hdi   COMP-3PL
      'they should be Hdi'

(77) ndá   mbrá   ká-tsì
      ASSC   strong COMP-3SG
      'he/she should be strong'

The subjunctive mood in equational clauses is negated by the frame á . . . wà:

(78) xdí   á   ká   tsì   wà   [xdá-á-ká tsù-wà]
      Hdi   NEG   COMP   3SG   NEG
      'she should not be Hdi'

7. Normative modality

Hdi has grammaticalized a modality that codes activities and norms to be followed as a general rule in pursuit of certain goals, or norms and rules that exist even if no action on the part of the subject is involved. We label this "normative". This modality is coded by the preposition *ngá* 'for' (glossed as "NORM") in clause-initial position. The verb in the normative mood cannot be reduplicated. Pronominal subjects are drawn from the possessive set:

(79)   *ngá   xwáyá-ní   ndá   zèŋ-zèŋ*
     NORM   run-3SG   ASSC   curved knife
     'He should run around with a curved knife.'

(80)   *tà   xúl-á   vàkú   xìs   ngá   pgh-ày-ní   tá*
     PREP   back-GEN   year   two   NORM   pour-PO-3SG   OBJ
     pghù
     libation
     'after two years he should pour a libation'

Clauses in the normative mood may have nominal subjects. In our data such subjects are non-referential, although they could be definite, i.e. mentioned in previous discourse, as in following examples describing the general roles of participants in a ceremony to mark becoming the head of a household:

(81)   *ngá   sá-bà   tsá   m̀ndú   yá   jíbìl*
     NORM   go-OUT   DEM   man   DEM   outdoors
     ndá   lgùt-á   ngrá   tà   vghá-ní
     ASSC   cloth-GEN   black   PREP   body-3SG
     'The man should come out wearing black clothes.'

(82)   *ngá   lá-bà   m̀ndú-xà   ksà-gá-ghà-tà*
     NORM   go-OUT   man-PL   catch-INN-D:PVG-REF:SUBJ
     'people should go out and catch him'

(83)   *ngá   dà-gá-ghà-tà   índà   grá-xà-ní   tá*
     FOR   cook-INN-D:PVG-REF:SUBJ   all   friend-PL-3SG   OBJ
     ghzú
     beer
     'All of his friends should cook beer and bring it there.'

When the subject refers to unspecified humans, it is unmarked, because the unspecified human subject *lú* does not have a possessive counterpart:

(84)   *ngá*   *dà-ghá-tà...*
        NORM   cook-D:GO-REF:SUBJ
        'one should cook and take it away'

(85)   *ngá*   *skál-áy*   *ndá*   *lúwá*   *tá*   *ɓìdá*   *dèy dèy*
        NORM   dance-PO   ASSC   sky   PREP   millet   exactly (Hau.)
        fitík-á   *ìmí*
        time-GEN   water
        'One should celebrate during the year of millet, and only during the rainy season.'

The normative marker is used to code usual events, without any notion of obligation:

(86)   *tà*   *xúlá*   *tsá*   *ngá*   *xgà-f-tá*   *xgà*   *ghúní...*
        PREP   back   DEF   NORM   call-UP-REF   call   2PL
        'Afterwards, they would call you up ...'

(87)   *gá*   *màxtsím-á-ní*   *ngá*   *sá-ghà*
        PREP   morrow-GEN-3SG   NORM   arrive-D:PVG
        tsá   *màràkw*   *yá*   *ndá*   *lá*   *dá-ní*
        DEF   wife   DEM   ASSC   COLL   father-3SG
        'the next day the wife shall return together with her parents'

8. The prohibitive mood

There are two types of prohibitive constructions: One is formed with the preposition *mà*, and the other is marked by auxiliary verbs. The prohibitive mood is not a part of the negation domain, since it does not have a clause-final negative particle.

8.1. The prohibitive through the preposition mà

There are two constructions involving the prohibitive *mà*. One construction has the root of the verb or the verb itself ending in schwa. The other construction has the verb ending in one of the stem-forming vowels, *a, i,*

or *u*. The stem-forming vowels *i* and *u* are not reduced in interconsonantal position:

(88) *mà* *fú-tsí* *tá* *rdì*
PROH heat-3SG OBJ oil
'he should not heat the oil'

The prohibitive form of the verb *dzà'á* 'leave' is identical with the indicative form.

(89) *mà* *dzà'á-ká*
PROH go-2SG
'do not leave'

Our natural discourse data have very few instances of prohibitive modality; moreover, only one type of prohibitive modality is represented.

The subject pronouns have high rather than low tone. The tone of the verb is the same as the underlying tone. Compare the verb *sà* 'drink', which has underlying low tone, and the verb *zá* 'eat', which has underlying high tone:

(90) *mà* *sà-ká* *(tá* *yà* *ìmí* *yá)*
PROH drink-2SG OBJ DEM water DEM
'do not drink [this water]'

(91) *mà* *zà-ká* *(tá* *yà* *dàfá* *yá)*
PROH eat-2SG OBJ DEM food DEM
'do not eat [this food]'

The prohibitive form may occur with all persons and numbers. The third-person singular is marked by the form *tsí*:

(92) *mà* *zà-ká*   *mà* *zà-kúní*
PROH eat-2SG   PROH eat-2PL
'do not eat!'   'you (PL) should not eat!'

(93) *mà* *zà-tsí*   *mà* *dà-tsí*
PROH eat-3SG   PROH cook-3SG
'he should not eat!'   'he should not cook!'

In the first person the vowel *i* replaces the last syllable of the verb, and as a result there is a long vowel at the end:

(94) mà   zí-í
PROH eat-1SG
'let me not eat!'

The first-person plural inclusive in the prohibitive is *mú* rather than *má*, which occurs in the imperative mood:

(95) mà   zə́-mú
PROH eat-1PL.INCL
'let us not eat'

One cannot have the form *má* in the prohibitive mood:

(96) *mà   zə́-mà
PROH eat-1PL.INCL
for 'let us (INCL) not eat'

In the imperative form only the form *má* can be used:

(97) zá-má
eat-1PL.INCL
'let us eat!'

(98) *zá-mú
for 'let us eat!'

Biconsonantal verbs with two obstruents have the prohibitive form CCə:

(99) mà   dvə́-ká
PROH love-2SG
'do not love'

Biconsonantal verbs with the second consonant sonorant insert a schwa to satisfy the syllabification conditions:

(100) mà   sə́n   tàdá
PROH know Tada
'Tada should not know'

Polyconsonantal verbs do not have a schwa in the prohibitive construction:

(101)   *mà*   *ndàn-kà,*   *ká*   *zwàn-à*   *lázgláftà*   *ndá*   *tsí*
PROH   think-2SG   COMP   child:PL-GEN   God   ASSC   3SG
' "do not worry," the children of God told him'

(102)   *mà*   *tágh-ká*   *tá*   *skál-á*   *mǹndú*
PROH   learn-2SG   OBJ   dance-GEN   man
'do not learn the dance of others' (interpretation: go your own
way; do not imitate others.)

(103)   *mà*   *wùdə́-kún*   *tá*   *wùdá*   *mà*   *vwàx-á*
PROH   fight-2PL   OBJ   fight   PREP   field-GEN
mídz-á-d'á
mother-in-law-GEN-1SG
'do not fight in the field of my mother-in-law.'

(104)   *mà*   *gìgìd'-àvá-ká*
PROH   move-APPL-2SG
'do not move' (INTRANSITIVE)

8.2. The prohibitive and the -a form of the verb

Transitive verbs in the prohibitive form may have the vowel *a* added. This
marker assumes the tone of the verb. Our hypothesis is that *a* is a referen-
tial marker. It is used when the goal is referential, viz. when a specific aim
is to be achieved, a specific person affected, a specific place reached.
These functions explain the use of *a* with spatial extensions. Additional
support for the hypothesis about the referential function of the vowel *a* in
the prohibitive construction is provided by its use with the referential past
tense, i.e. the tense coding specific past time. This tense is marked by *sí*:

(105)   *sí*   *má*   *sà*   *á*   *ká*   *wà*
PAST   PROH   drink   NEG   2SG   NEG
'you should not have been drinking'

The evidence for the proposed function of the marker *a* is provided by the
fact that it must be used with the referential object or referential place:

(106)   *mà*   *f-á-ká*   *tá*   *ùdzú*   *xàdì*   *yá*
PROH   put-2SG   OBJ   wood   place   DEM
'do not put wood there' (to somebody who intends to do so)

(107) *mà   ɓl-á-ká   tá   yà   zligàmà   yá*
PROH   break-PART-2SG   OBJ   DEM   branch   DEM
'do not break that branch off'

Compare the non-referential object:

(108) *mà   ɓəl-ká   tá   tsá   zligàmà   yá*
PROH   break-2SG   OBJ   DEM   branch   DEM
'do not break the branch'

The marker *a* may be the only marker of the referentiality of the object:

(109) *mà   ts-á-ká   tá   fú*
PROH   cut-PVG-2SG   OBJ   tree
'do not cut the branch off that tree'

(110) *mà   tsə-ká   tá   fú*
PROH   cut-2SG   OBJ   tree
'do not cut the tree' (at the bottom)

(111) *mà   ksá-ká*
PROH   catch-2SG
'do not wound/kill/devour it' (after the animal has been caught)

(112) *mà   ksə-ká*
PROH   catch-2SG
'do not catch it'

If a spatial extension is added to the verb, the distinction between the two types of prohibitives is neutralized because all spatial markers require goal-oriented *á* to precede them:

(113) *mà   fá-f-ká   tà   údzù*
PROH   put-UP-2SG   PREP wood
'do not put [it] on wood'

8.3. The prohibitive through an auxiliary verb

The prohibitive modality may also be coded by auxiliary verb *yàghá* 'should not'. This form does not allow the negative marker at the end of

the clause. The form is used in complement and in main clauses. Subject pronouns are affixed to the verb, which is then reduced to *yàgh:*

(114) àmá   yàgh-ká   xgà-n-tá   ùvá   ká-'á
       but   should not-2SG   call-3-REF cat   COMP-3SG
       ' "but you should not invite Cat," he said'

(115) yàghá-ká   zá hlú'wí ndír-ndírì
       should not-2SG   eat meat   raw
       'you should not eat raw meat'

The function of *yàghá* does not necessarily have to be agent oriented. It codes the negation of potential events in the future. In such function *yàghá* is followed by the purpose marker *dá:*

(116) kàgbá tsá yá   klə́ xdì-xà   kà   kà
       reason DEF DEM take Hdi-PL   SEQ   SEQ
       wúyá   skwì ngá   dàdá-xà   mà   xàdík
       celebrate thing PREP father-PL PREP earth
       yàghá-xən   dá   ghúyá dáŋgwà   mà   xàdík
       should not-3PL   PURP suffer illness PREP earth
       'that is why Hdi celebrate the cult of ancestors, so as not to suffer calamities on earth'

9. Emotive modality, or warning

There is a clause-initial adverb consisting of the marker *wí*, sometimes followed by the middle-distance demonstrative *yà* 'here'. The function of this marker is to warn the hearer and possibly to express disapproval of hearer's actions:

(117) wí ìmí
       'watch out: water' (to somebody who is about to step into water)

The marker *wí* (*yà*) 'there' also serves as a marker of surprise and occurs in clause-initial position:

(118) wí yà lá- m-là
       there go-IN-go
       'he has entered', 'he is inside'

(119)   *wí yà*   *yàghá*   *ká*   *xgà-n-tá*   *kər*
        there   should not   2SG   call-3-REF   dog
        kí-ì   *kày*   *ká*   *ùvá*   *ndá*   *yàghí*
        COMP-1SG INTERJ   COMP   cat   ASSC   Squirrel
        ' "Didn't I tell you not to invite Dog?" Cat said to Squirrel.'

10. Conclusions

As in many other languages, the unmarked indicative sentence indicates the speaker's belief in the truth of the proposition. Doubt in truth and certainty of truth are coded through epistemic adverbs. . The hypothetical modality is coded through the clause-initial marker *má*. There are three deontic modalities coded in the grammatical system: the imperative; the subjunctive, marked through the clause-initial marker *kà*; and the prohibitive, marked through the preposition *mà* and auxiliary verb *yàghá*. The normative modality codes customs or norms to be followed in general, but does not express obligation with respect to the referential situation. The negation of subjunctive in the imperfective involves the use of the verb *xad* 'not to exist'.

Chapter 12

Aspect

1. Two aspectual systems

As a working definition, we take "aspect" to mean the temporal characteristic(s) of an event within a certain time frame. In addition to marking the temporal characteristic of the event, however, aspects in Hdi, as in many Chadic languages, carry the function of coding the pragmatic characteristic of a clause, viz. whether the clause should be interpreted on its own or in connection with some other preceding or ensuing propositions (cf. Jungraithmayr 1994, Frajzyngier 1997 MS). There are two aspectual systems: One system occurs in affirmative indicative clauses, in yes/no questions, and in comments on topicalized constituents. These types of clauses do not require any specific presupposition for their proper semantic interpretation. They can be produced at the beginning of conversations or narratives, and when no previous knowledge of a specific context is required. We call them pragmatically independent clauses.

The other aspectual system occurs in comments on the focused constructions, relative clauses, wh-questions, and presentative constructions. All of these clauses are comments on a proposition that has been previously mentioned in discourse (comment on the focused elements, comment on the head of the relative clause), or their proper interpretation involves a specific discourse presupposition, such as the assumption of the truth of the proposition for wh-questions or knowledge of what has been said before for sequential clauses. We call them pragmatically dependent clauses.

There are two aspects that code the pragmatic status of the clause: perfective and imperfective. The other aspect, viz. stative, does not code the pragmatic status.

We have chosen the label *perfective* for the forms that code bounded events, those with a well-determined beginning or end or both. The forms indicate that an event or process, but not a state, is no longer taking place, or in the case of imperative modality, that the event is bounded. The perfective aspect can also be used in the future tense when it codes the

boundedness of an event in the future time. The perfective aspect may also be marked in the deontic mood.

There are two means of coding the perfective, depending on the type of clause. In pragmatically independent clauses, the perfective is coded through reduplication of the verb. In pragmatically dependent clauses, the perfective is coded by the vowel *a* suffixed to the verb before the subject and object. The imperfective aspect is coded by preposition *tà* (identical with the locative stative preposition) in both dependent and independent clauses. In an independent clause the verb is represented by the nominal form, and in a pragmatically dependent clause, the verb is represented by the root when preceding the subject.

The referential marker *-tá* may occur in both the perfective and the imperfective aspects. Table 14 presents an overview of the formal distinctions involving aspect:

Table 14. Aspectual system

	Independent	Dependent
Perfective	reduplication	verb-*a*
Imperfective	*tà* nominal verb	*tà* verbal root
Stative	*ndá* verb-*a*	

2. The perfective aspect in pragmatically independent clauses

In pragmatically independent clauses, the perfective aspect is marked by reduplication of the sentence-initial verb. The final vowel of the second part of the reduplicated verb is always *a*, unless it has been replaced by the vowel of the subject pronoun, such as *i* for the first-person singular and *u* for the first-person dual. We describe first the morphology of reduplication, then the functions of the reduplicated form.

2.1. The morphology of reduplication

The form of the reduplicated verb is Verb-(Extension)-(Object)-(Extension)-Verb-(Subject). The first part of the reduplicated verb has the stem-final vowel. The second reduplicated form ends in the vowel *a* regardless of the person of the subject. The third-person singular pronominal subject is unmarked, and the verb ends in low tone, regardless of the underlying tone of the verb:

(1)   *s-ù-sà*
      'he drank up'

      z-ú-zà
      'he ate up'

(2)   *v-í-n-và*   *tá*   *vú*
      light-AWAY-3-light   OBJ   fire
      'he lit a fire'

The final vowel of the verb has high tone if followed by a pronominal or a nominal subject, again regardless of the underlying tone of the verb:

(3)   *v-í-n-vá-ká*   *tá*   *vú*
      light-AWAY-3-light-2SG   OBJ   fire
      'you lit a fire'

(4)   *v-í-n-vá-mú/ŋní*   *tá*   *vú*
      light-AWAY-3-light-1PL.INCL/1PL.EXCL   OBJ   fire
      'we (INCL/EXCL) lit a fire'

(5)   *v-í-n-vá-kúní/xǝn*   *tá*   *vú*
      light-AWAY-3-light-2PL/3PL OBJ   fire
      'you (PL)/they lit a fire'

Here are examples of high- and low-tone verbs that must end in high tone when followed by nominal subjects:

(6)   *xgà-xgá*   *yàghí*   *tá*   *krì*
      call-call   squirrel OBJ   dog
      'Squirrel invited Dog'

(7)   *ksá-ksá*   *yàghí*   *tá*   *krì*
      catch-catch squirrel OBJ   dog
      'Squirrel caught Dog'

If the subject begins with a vowel, as is the case for the first-person singular, the vowel of the subject replaces the last vowel of the verb and assumes its tone. The inherently low-tone verbs have high tone in the first-person singular subject marker. This fact provides additional evidence that the verb-final syllable has high tone when followed by the subject:

(8)   *s-ù-s-í*
        drink-SO-drink-1SG
        'I drank up'

(9)   *sá-s-í*
        arrive-arrive-1SG
        'I came down'

        zú-z-ì
        eat-SO-eat-1SG
        'I ate up'

The low tone on the third-person singular subject is a marker of the subject, as evidenced by the fact that nominal objects must be preceded by the preposition *tá*:

(11)   *xgà-xgà*   *tá*   *krì*
        call-call   OBJ   dog
        'he invited Dog'

(12)   *ksá-ksà*   *tá*   *krì*
        touch-touch   OBJ   dog
        'he wounded/killed a dog' (The verb *ksá* 'touch' is one of many euphemisms for a variety of actions that involve killing.)

In our glosses we leave the third-person singular subject in perfective indicative clauses unmarked.

Object affixes appear after the first occurrence of the verb stem and are followed by extensions, if any. Recall that the distinction between direct and dative objects is marked by the tone preceding the object pronoun and by the tone on the pronoun itself.

2.2. The functions of the perfective through reduplication

The reduplicated form of the verb is used to code bounded events in affirmative indicative clauses with no element in focus, and in yes/no interrogative clauses. The reduplicated form of the verb is used at the beginning of paragraphs or narratives, i.e. in those situations where the proposition does not follow other propositions:

(13)   *yáyà-yáyá*   *kɗérí*   *tá*   *zwàn-ì*
       give birth:PL-give birth:PL   Kderi   OBJ   child-PL
       ghwáŋ-á-pɗɔ xìs
       ten-GEN-plus two
       'Kderi begot twelve children'

In conversations the reduplicated form is the first form produced by the speaker when taking turns, provided the event described in the proposition is bounded:

(14)   *tò,*   *lá-lá-ká*   *ndá*   *gì*   *íŋní*   *rí*
       OK   go-go-2SG   to   compound (Mafa)   1PL.EXCL   Q
       'Did you go to our place?'

(15)   *vàghà-vàghá-ká*   *rà*
       spend the day-spend the day-2SG   Q
       'did you pass the day well?' (a greeting in the afternoon/evening)

(16)   *vàghà-vàgh-í*   *pràfé*
       spend the day-spend the day-1SG   Prafe
       'I passed the day well, Prafe' (reply to the afternoon greeting)

Evidence that the reduplicated form of the verb is an aspectual rather than a tense category is provided by the fact that it may be used with the future tense marker *dzà'á*:

(17)   *dzà'á*   *sá-ghà-sá-xɔn*   *ndá*   *wùdà*   *ndá*   *sígà*
       FUT   arrive-D:PVG-arrive-3PL   ASSC   big pot   ASSC   pot
       'They will bring a *wuda* and a *siga* [of beer].'

(18)   *dzà'á*   *skwá-p-skwá*   *nàsàrá-ngrá,*   *ká-xəŋ*   *tà*
       FUT   buy-OUT-buy   white man-black[8]   COMP 3PL   IMP
       ndàn-áy
       think-PO
       'The black boss is going to sell [the child], they thought.'

The perfective through reduplication may be used in the imperative mood:

(19)   *zlá-ŋnà-ŋ-wá-zlá*   *ká-xɔn,*
       leave-1PL.EXCL-3-PL-leave   COMP-3PL
       ' "Leave (PL) it for us," they said.'

The reduplicated form may occur after a complementizer:

(20)   *mántsá*   *yá*   *tàmá*   *ná*   *ndzà-ndzá*   *lá*
       like   that   now   COMP   remain-remain   COLL
       dəbləm   *mándá* *zwáŋ-á* *táglá*   *gáwá*
       Diblem   like   child-GEN adoptive Gawa
       'That is how the Diblem people became like the adoptive children
       of Gawa.' (written source)

The perfective may be coded through the reduplicated form only in a pragmatically independent clause. In a pragmatically dependent clause a different means to code the perfective must be used. The following example contains the same verb (in its lexicalized plural and singular forms) in the perfective aspect in the matrix clause and in the comment-on-focus clause:

(21)   *dzà'á*   *phlá-phlá-xən*   *tá*   *mndú*   *kàbgà*
       FUT   kill.PL-kill.PL-3PL OBJ   man   because
       xáxəŋ   *tá*   *dzà-tá*   *dá-dà*   *ká*   *gawa.*
       3PL   COM   kill.SG-REF father-1SG COMP   Gawa
       ' "They will kill us, because it is they who killed my father," said
       Gawa.' (*phlá* is suppletive plural of *dzà* 'kill')

3. The perfective aspect in pragmatically dependent clauses

3.1. The forms of the perfective in pragmatically dependent clauses

The perfective aspect cannot be coded through reduplication in pragmatically dependent clauses. Instead of reduplication the perfective in pragmatically dependent clauses is marked by the suffix *a* preceding the pronominal or nominal subject. The verb keeps its underlying tone, whether high or low. We illustrate this form with examples of the perfective in specific interrogative clauses. Note that the third-person singular subject is coded by the form *tsí* when the question is about the object:

(22)   *nə*   *sí*   *dà-tsí*
       what   PAST   cook:GO-3SG
       'what did he cook?' (The action has ended, and the cooking has
       been done.)

(23) nə   mágá-ká   gà   ghúní   nà
      what   do:GO-2M   PREP   2PL   Q
      'what did you do at home?'

The root form of the verb cannot be used in the pragmatically dependent perfective:

(24) *nú   tá   zə-xən   (nà)
      which thing   COM   eat-3PL   Q
      for 'What ate them?'

If the adverb of time is fronted, the clause following it is pragmatically dependent. If the subject occurs before the verb, e.g. when it follows the temporal adverb *mbàɗ ká* 'then', the object directly follows the verb, which has the goal-oriented vowel *a*:

(25) mbàɗ ká   xdí-xà   kày   kà   phlá   tsá
      then COMP   Hdi-PL   INTERJ   SEQ   kill.PL   DEF
      plìs-xà   yá . . .
      horse-PL   DEM
      'Then Hdi killed the horses . . .'

If the event is referential, the referential suffix *tá* is the only indication of perfectivity:

(26) kà   kùzà-ná-ghá-tá   vlì   tà   tví
      SEQ   darken-DEM-D:GO-REF   space   PREP   road
      'and the darkness surprised him on the road' (lit. 'the space dark
      ened around him on the road')

(27) mà   sán-à   fitík   mbàɗ   ká
      PREP   other-GEN   time   then   COMP
      ì   pákáwá ghúvì   kà   nzà-tà   ndá   krì
      ASSC.PL   hyena   SEQ   stay-REF   ASSC   dog
      'At one time, Hyena and Dog lived together.' (They do not live
      together anymore.)

Compare the imperfective:

(28)   *mà   sán-à   fìtík   mbàd   ká*
    PREP   other-GEN   time   then   COMP
    ì   pákáwá ghúvì kà   nzà-kú   ndá   krì
    ASSC.PL   hyena   SEQ   stay-ABS   ASSC   dog
    'At one time, Hyena and Dog lived together.' (no implication that they do not live together anymore)

The third-person singular, which is unmarked in the reduplicated perfective, is marked by the suffix *tsí* if there is a noun phrase other than the subject preceding the verb. Here is an example of the use of the perfective in the relative clause, one of the types of clauses requiring the dependent clause aspectual coding:

(29)   *tsá   mndú-xà   tà   wù-tsí   yá*
    DEF   man-PL   PREP   take:PL-3SG   DEM
    'people that he has gathered'

3.2. Types of clauses that require dependent clause perfective coding

3.2.1. Clauses following presentative constructions

The presentative function (originally proposed by Hetzron 1971) involves presenting one element of a proposition to be commented on by the rest of the proposition. Most of such clauses have the referential marker *tá* because they refer to a specific event:

(30)   *mà   ghúmá   mántsá   yá   má   dzà-tà-xàŋ*
    in   war   like   DEM   even   kill-REF:SUBJ-3PL
    tá   Gulu
    OBJ   Gulu
    'It is in that type of war that they killed Gulu'

3.2.2. Comment on a focused element

Aspectual coding is one of the means of coding a comment on the focused element. The focused element is always fronted. If the focus is on the subject, the comment on focus is preceded by the particle *tá*, glossed as "COM", for "comment marker tá". The verb has the referential marker *tá* in such a case:

(31) *tsá   mìndú-xà yá   tá   tàxá-f-tá   sá-ghà*
      DEF   man-PL   COP   COM   start-UP-REF   arrive-D:PVG
      tà   xàdík ká xdi
      PREP   land   of Hdi
      'These people are the first to arrive in the Hdi land.'

(32) *kàbgà   xáxəŋ   tá   dzà-tá   dá-ɗá   ká   gawa*
      because   3PL   COM   kill-REF father-1SG COMP Gawa
      ' "Because it is they who killed my father," said Gawa'

(33) *vàzák   tá   ɗífà-ná-tà*
      rooster   COM   hide-DEM-REF
      'it is Rooster that hid him'

If the focused element is the object, there is no comment marker *tá*, and more important, the verb does not have the referential marker *tá*:

(34) *vàzák   ɗífà-ná-tsí*
      rooster   hide-DEM-3SG
      'it is Rooster that he hid'

3.2.3. Relative clauses

A relative clause is a comment on the head noun. In such a clause only the dependent aspectual forms are used:

(35) *xùtsà,   tá   yà-gá-p-tá   mìndrá   lá*
      Xutsa   COM   give birth-INN-OUT-REF clan   COLL
      xùtsà
      Xutsa
      'It is Xutsa who begot the clan of Xutsa'

3.2.4. The dependent perfective in specific questions

In specific interrogative clauses the perfective is marked by the vowel *a* ending the verb, unless the event is referential with a referential object, when the verb has the referential suffix *tá* :

(36) *wá   fá-tsí   nà*
      who   put-3SG   Q
      'whom did he put?'

(37)   *nə̂   fá-tsí   nà*
        what   put-3SG   Q
        'what did he put?'

(38)   *wá   tá   fá-tà   nà*
        who   COM   put-REF   Q
        'who put it?'

(39)   *gá   fá-tá-tsí   nà*
        where   put-3SG-REF   Q
        'where did he put it?'

3.2.5. The perfective in negative clauses

The perfective in negative clauses is characterized by the non-reduplicated verb stem ending in *a*. This form is different from imperfective in negative clauses. There are no prepositions preceding the verb. Nominal and pronominal subjects follow the verb, and if the verb has extensions, subjects follow the extensions. Since the event did not occur, it is not part of reality, not referential; therefore the referential marker *ta* does not occur in negative clauses:

(40)   *ngà-ná-ngà   rî   ngà-ná   wà   á   ná*
        grab-DEM-grab   Q   grab-DEM   NEG   3SG   DEM
        pákáwá ghúvì   nà
        hyena   DEM
        ' "Did or didn't Hyena grab it?" '

(41)   *àmá   hlɔ̀gà-f-hlɔ̀gá-xɔ̀n   tá   hlɔ̀gà   ré*
        but   plant-UP-plant-3PL   OBJ   plant   Q
        àrî hlɔ̀gà-f   á   wà   xɔ̀n
        or plant-UP   NEG   NEG   3PL
        'But did they plant or didn't they?'

The tense aspectual value of the unmarked aspect is underspecified. In each case the tense aspect interpretation is computed from the discourse environment. The two preceding sentences had a past tense interpretation. The following sentence has a present tense interpretation:

(42) à   rí   sná   wá   ká   tá   kòbàrà   gwál
      or   Q   know NEG   2SG   OBJ   news (Ful.)   people
      gì   íŋní   nà
      compound   1PL.EXCL   Q
      'Do you know any news about people from our compound?'

4. The imperfective aspect

Like the perfective, the imperfective also has two forms, one used in pragmatically independent clauses and the other in pragmatically dependent clauses. Both types share as one of their markers the locative preposition *tà* preceding the verb. The use of this preposition suggests that the imperfective originated as an expression of the type 'X be at Y', coded by the form *tà* Y X, where Y represents a location and X represents a subject. The location is the nominal form of the verb. The grammaticalization of *tà* from a locative preposition to a marker of the imperfective aspect came about as a result of a functional extension of the locative expression where the element Y could be filled by one of various verbal forms. We call the imperfective in pragmatically independent clauses the "independent imperfective", and the imperfective in pragmatically dependent clauses the "dependent imperfective".

4.1. The form of the independent imperfective

The form of the independent imperfective is *tà* Verbal noun Subject (*tá* Object). In order to demonstrate the form of the independent imperfective, we present first the verbal nouns derived from various verbs:

(43) Verb   Verbal noun
      kátà   'help'   *kátù*   'help'
      và   'light a fire'   *vú*   'fire'
      xàná   'sleep'   *xàní*   'sleep'
      skálà   'dance'   *skálù*   'dance'
      vàghá   'spend time'   *vàghú*   'time spent'
      pghá   'spread'   *pghù*   'libation'
      wàxá   'cry'   *wàxú*   'cry'
      ɗgá   'thresh'   *ɗgú*   'threshing'

(44) vníxà   'vomit'   vnìxí   'vomit'
      xídà   'bite'   xídì   'bite'
      ghálà   'steal'   gháli   'thief', 'theft'
      fidá   'plane (wood)'   fidí   'planing'

Examples of imperfective constructions:

(45) tà   vàl-ú   mbítsá
      IMPF   jump-NOM   Mbitsa
      'Mbitsa jumps'

(46) tà   ghál-ì   mbítsá
      IMPF   steal-NOM Mbitsa
      'Mbitsa steals'

(47) tà   kát-ú   mbítsá
      IMPF   help-NOM   Mbitsa
      'Mbitsa helps'

If there is an object in the clause, the verb must be followed by the object marker *ay*, which replaces the last vowel of the verb and assumes its tone:

(48) z-áy   'eat'
      s-ày   'drink'
      d-ày   'cook'

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(49) kd-ày   'finish'
      kát-áy   'help'
      sn-áy   'listen'
      zlgh-ày 'help'
      mt-ày   'die'
      ngh-áy   'see'

The form of the verb with the object marker -*ay* is the form that native speakers give spontaneously as the citation form of verbs without extensions. Citation forms of verbs with extensions include the referential marker -*tá*.

The marker -*áy* is obligatory if the clause has an object marked by the preposition *tá*. The third-person singular pronominal subject is unmarked:

(50) *tà*   *s-ày*   *tá*   *ghzú*   *bàɗ*   *lúmá*   *káwày*
      IMPF   drink-PO   OBJ   beer   day   market   only (Hau.)
      'he drinks beer only on market days'

Omission of the suffix -*áy* renders the sentence ungrammatical:

(51) *tà   *sə*   *tá*   *ghzú*   *bàɗ*   *lúmá*   *káwày*
      IMPF   drink   OBJ   beer   day   market   only (Hau.)
      for 'he drinks beer only on market days'

Pronominal subjects other than the third person are added after the suffix
-*áy*.

(52) *tà*   *d-ày-ká*   *tá*   *ɗàfá*
      IMPF   cook-PO-2SG   OBJ   food
      'you cook'

(53) *tà*   *fs-áy-xən*   *tá*   *hlwí*
      IMPF   grill-PO-3PL   OBJ   meat
      'they grill meat'

4.2. The functions of the independent imperfective

The structure *tà* Verbal noun (Object) codes unbounded events. The evidence that this structure codes an aspectual rather than a tense category is provided by the fact that it may occur with different tense markers, e.g. with the specific past tense marker *sí* to produce the past imperfective:

(54) *sí*   *tà*   *ɗv-áy-xən*   *tá*   *hlí-á-mú*
      PAST   IMPF   want-PO-3SG   OBJ   leave-GEN-1PL.INCL
      '[at that time] they wanted us to leave'

(55) *sí*   *tà*   *d-ày*   *tá*   *ɗàfá*   *kà*   *skwá-p-tà*
      PAST   IMPF   cook-PO   OBJ   food   SEQ   buy-OUT-REF
      tà   *lúmá*
      PREP   market
      '[at that time] she used to cook food and sell it at the market'

The evidence that the structure *tà* Nominalized verb (Object) represents unbounded events is provided by the fact that it can occur with adverbs coding duration:

(56) *tà*   *nú'w-ày-lú*   *tá*   *hlà*   *vàkú*   *hìs*   *kwá*   *xkàn*
      IMPF   fatten-PO-UH   OBJ   bull   year   two   or   three
      'one fattens a bull for two or three years'

The independent imperfective is used in affirmative indicative clauses with no element in focus, in questions about the truth of a proposition, and in comments on topicalized elements. We first present examples of the use of the independent imperfective in affimative indicative clauses and in questions about truth:

(57) *tá*   *tà*   *tsk-áy-lú*   *tá*   *vghá*
      COM   IMPF   gather-PO-UH   OBJ   body
      tà   *hldày*   *mántsá*   *ghàlyá rà*
      PREP   often   like   once   Q
      'Do people gather as they used to?'

(58) *tà*   *tsk-áy-xàn*   *dé* ← *dái*   (Hau.)
      IMPF   gather-PO-3PL   indeed
      'They gather indeed.'

The independent imperfective cannot be used in a negative clause. The following example has the same verb in two clauses, both coding unbounded events. The affirmative clause has the independent imperfective with the potential object marker -*áy*, and the negative clause has just the verbal noun form:

(59) *tsá*   *myí-xà*   *yá*   *ná*   *tà*   *dv-áy*   *tá*   *yà*
      DEF   wives-PL   DEM   COMP   IMPF   like-PO   OBJ   DEM
      tùrtúk   *dvá*   *á*   *tá*   *yà*   *tùrtúk-ù*
      one   like   NEG   OBJ   DEM   one-NEG
      'Among these wives there, he liked one and did not like the other.'

In addition to the aspectual function, the independent imperfective also codes a clause as pragmatically independent, i.e. not requiring any other information for its proper interpretation. The independent imperfective is the principal means of distinguishing between topicalization and focus, both of which involve fronting of the topicalized or focused element. That the fronted element is the topic (rather than the focus) is marked by the independent imperfective:

(60) *gàdúrù* *tà* *z-áy* *Mbitsa* *índà* *fitík*
pork IMPF eat-PO Mbitsa all time
'pork, Mbitsa always eats'

The function of the marker *-áy* requires additional commentary. The marker is not merely a mechanical result of the presence of an object phrase in the clause but rather is by itself a marker of the object in the proposition. The evidence for this hypothesis is provided by the use of *-ay* in clauses without a nominal object, as in the second clause of the following example, where *-áy* codes the same object as the one mentioned in the first clause:

(61) *tà* *mág-áy* *tá* *kwá* *tá* *ghán* *àmá*
IMPF make-PO OBJ calabash PREP head but
xàd *tà* *kl-áy* *wà*
NEG IMPF take-PO NEG
'she makes head calabashes, but she does not wear one'

Additional evidence for the object function of the marker *-ay* is provided by the fact that intransitive verbs become transitive once the suffix *-ay* is added:

(62) *tà* *vr-áy* *tù* *lúmá*
IMPF return-PO PREP market
'he returns to the market with something'
Cf.:
(63) *tà* *vrú* *tù* *lúmá*
IMPF return PREP market
'he returns to the market'

The final piece of evidence for the function of the marker *áy* is provided by the fact that it does not occur in clauses that describe general activities with no specific object:

(64) *tà* *skú* *bàdú* *lúmá* *káwày*
IMPF buy:NOM day market only
'she does the shopping only on market days'

(65) *tà* *táw* *zwáŋ*
IMPF cry child
'a child cries'

4.3. The imperfective and the point of view of source

The source-oriented marker in the imperfective is the form -*kú* added to the verb stem ending in the vowel *a*. The marker can be added to intransitive or transitive verbs. It codes subject affectedness through an outside force or movement of the subject. There is no distinction between pragmatically independent and pragmatically dependent clauses with the point of view of source. Here are examples with intransitive verbs:

(66)   *áŋní*   *ndá*   *zwàn-à-dà*   *tà*   *rwá-kú*   *dà*
       1PL.EXCL   ASSC   child:PL-GEN-1SG   IMPF   suffer-ABS   PREP
       máyá
       hunger
       'my children and I suffer hunger'

(67)   *kú-lù*   *ná*   *ús-á*   *m̀ndú-xà*   *tà*   *ɓàrzlá-kú*
       COMP-UH   COMP   blood-GEN   man-PL   IMPF   run-ABS
       màndá zálá   *tà*   *líkà*   *mà*   *rúm.*
       like   current   PREP   river   PREP   name of a mountain
       'They say that blood of men was running like the current in the river of Rum'

The verb *ghúlpá* 'to go blind' always affects the subject, and with this verb the marker *kú* must be used:

(68)   *gì*   *fárá-f-tà*   *ìr-á-táŋ*   *tsá*
       immediately   start (Hau.)-UP-REF   eye-GEN-3PL   DEM
       tá   *ghúlpá-kú*
       COM   blind-ABS
       'immediately their eyes started to go blind'

The marker -*kú* is also used if the subject is undergoing movement but the situation is presented from the point of view of the subject:

(69)   *kə'á*   *ká*   *xdə́-xà*   *kdíŋà-gá-p-tà*   *tà*   *ghùrúm*
       COMP   COMP   Hdi-PL   spot-INN-UP-REF   PREP   hole
       nà   *tà*   *kwòkùsá-má-kú-xə̀ŋ*   *mà*   *zívàk.*
       DEM   IMPF   walk in wasteland-IN-ABS   PREP   field
       'When the Hdi spotted them from inside the cave, they [Hamayadzi's people] were walking aimlessly in the field.' (written sources)

The marker *-kú* must also be used with the verb *nzá* or *ndzá* 'stay, remain':

(70) *kà   màmú m̀ndú kúl   sá-ghà   ndá*
      SEQ   exist man   lack arrive-D:PVG ASSC
      ndzà-kw-á-ní   dəghwáná
      stay-ABS-GEN-3SG   health
      ndá   kwálá-ní kùl   dghwáná-kú   tàní hlìíá-táŋ
      ASSC   lack   without health-ABS   or   go-3PL
      'if somebody did not come, whether he is healthy or not, they will
      go . . .'

If the subject is not affected, the source-oriented marker is not used:

(71) *tà   ɓərzlə́ ús*
      IMPF   run   blood
      'the blood runs'

5. The dependent imperfective aspect

5.1. The form of the dependent imperfective aspect

In the dependent imperfective clause, if the verb is not preceded by a complementizer, the subject, whether nominal or pronominal, must follow the verb. The verb occurs in its root form, i.e. without the final vowel for monosyllabic verbs, and with the first vowel for polysyllabic verbs. Recall that in the dependent perfective the verb ends in the vowel *a*. If the verb is monosyllabic, schwa is inserted, as required to carry the tone of the verb and for the syllabification needs.

(72) *nə́   sí   də̀-tsí*
      what PAST cook-3SG
      'what did he want to cook [but did not manage to]?' (The action
      has ended, but the cooking has not been accomplished.)

Unlike in the perfective aspect, the underlying tone does not become high before nominal or pronominal subjects:

(73)   *ghzú   tà   sì-í*   *xìyá   tà   zí-í*
    beer   IMPF   drink-1SG   corn   IMPF   eat-1SG
    'It is beer that I drink'   'It is corn that I eat'

2SG	*sə̀-ká*	*zə́-ká*
3SG	*sə̀-tsí*	*zə́-tsí*
1DU	*sù-ú*	*zú-ú*
1PL.INCL	*sə̀-mú*	*zə́-mú*
1PL.EXCL	*sə̀-ŋnì*	*zə́-ŋnì*
2PL	*sə̀-kúní*	*zə́-kúní*
3PL	*sə̀-xə̀n*	*zə́-xə̀n*
UH	*sù-lù*	*zú-lù*

Bisyllabic verbs have the root form only, i.e. consonants and the first vowel. There is no second vowel unless one is required by syllabification rules:

(74)   *kà   díf   krì*
    SEQ   hide   dog
    'and the dog is hiding something'

(75)   **kà   dífá   krì*
    SEQ   hide   dog
    for 'and the dog is hiding'

Compare the pragmatically independent imperfective:

(76)   *tà   dífá   krì*
    IMPF   hiding   dog
    'the dog is hiding'

In the imperfective aspect the marker *a* suffixed to the verb marks the following pronoun or noun as the object rather than the subject:

(77)   *nə́   tà   zá-xə̀n   (nà)*
    what   IMPF   eat-3PL   Q
    'what eats them?' (What is their predator?)

(78)   *ń   tà   zá tsátsí   (nà)*
    what   IMPF   eat 3SG   Q
    'what eats this thing?'

5.2. The imperfective aspect in sequential clauses

In sequential clauses, i.e. clauses beginning with *kà*, the imperfective is marked by the root form of the verb rather than by the stem form:

(79) *kà* *zə́* *krì*
  SEQ eat dog
  'and Dog eats'

(80) *kà* *sə̀* *krì*
  SEQ drink dog
  'and Dog drinks'

(81) *kà* *ksə́* *krì*
  SEQ touch Dog
  'And Dog devours'

(82) *kà* *wùdə́-xə̀n tá* *wùdá*
  SEQ fight-3PL OBJ fight
  'and they were fighting.'

The independent imperfective cannot be used in sequential clauses:

(83) **kà* *z-ú* *krì*
  SEQ eat-SO dog
  for 'and the dog eats'

(84) **kà* *s-ù* *krì*
  SEQ drink-SO dog
  for 'and the dog drinks'

If the sequential clause is preceded by the form *mbàd ká*, the subject follows the complementizer, and the verb in sequential clause has the nominalized form:

(85) *mbàd ká-'á* *kà* *xàní*
  then COMP-3SG SEQ sleep:PL:NOM
  'then he slept'

(86) *mbàd ká-í* *kà* *mbàdá*
  then COMP-1SG SEQ walk
  'then I walked'

5.3. Argument coding in pragmatically dependent clauses

In the dependent imperfective the subject role of the argument is marked by the root form or the schwa:

(87) *kàbgà* *mándáyà* *tà* *mág* *zwán-ì* *tà* *zlày*
   because like   IMPF do child-PL PREP often
   gà *xdí*
   in Hdi
   'As youngsters often do in Hdi' (*zwánì* includes young people up
   to around 20 years old.)

The object following the subject is marked by the preposition *tá*:

(88) *mà* *sán-à* *fitík* *kà* *xágò* *yàghí* *tá*
   PREP one-GEN day SEQ invite:PL squirrel OBJ
   mìndú
   people
   'One day Squirrel was inviting people . . . '

If the nominal object in the dependent imperfective follows the verb, it is coded by the vowel *á* and high tone at the end of the verb. Recall that the vowel *a* with high tone is the genitive marker. Thus the verb and the object form a genitive construction:

(91) *kàbgà* *hámáyádzì* *kál* *xdí* *kà* *bábá*
   because Hamayadzi take Hdi SEQ build:PL:GEN
   xgá *tà* *ghwá* *tà* *ghwá*
   house PREP mountain PREP mountain
   'it is because of Hamyadzi that Hdi came to build houses on the
   mountains' (written sources)

(92) *mà* *sán-à* *fitík* *mbàd* *ká* *yàghí* *kà*
   PREP one-GEN day then COMP squirrel SEQ
   xág-á   *mìndú* *ngá* *dzà'á* *dá* *vàghú*
   invite:PL-GEN people FOR go   PURP spend day
   mù *vwàx-á-ní*
   PREP field-GEN-3SG
   'One day Squirrel was inviting people to work in the field of his
   in-laws.'

(93)   *wúyá   skwì   tà   klá-ghá-tà-ŋnì*
         here   thing   IMPF   take-2SG-REF-1PL.EXCL
         'here is the thing that we give you'

5.4. The functions of the dependent imperfective

The dependent imperfective is used in sequential, comment on focus, and specific interrogative clauses. The preceding examples illustrate the use of the dependent imperfective in sequential clauses. If a constituent of a clause is in focus, the comment on the focus in the imperfective aspect is marked by the dependent imperfective:

(94)   *mándá   xìyá   tà   ngh-íyù   tá   kághá*
         like   guinea corn   IMPF   see-1SG   OBJ   2SG
         'I see you as guinea corn'

The dependent imperfective is used in specific questions:

(95)   *nú   tà   zó-ká*
         which thing   IMPF   eat-2SG:Q
         'which thing do you eat?'

The dependent imperfective must be used in reason clauses. The independent imperfective is disallowed here:

(96)   *kàbgà   mándá   yà   tà   mág *áy   zwán-ì   tá*
         because   like that   COP   IMPF   do   child-PL   OBJ
         hlónà   gà   xdí
         work   in   Hdi
         'because it is like that that the young men work in Hdi'

The dependent imperfective is in itself a marker of the pragmatically dependent clause. That means that whenever the dependent imperfective is used, the hearer must look for a relevant context for the proper interpretation of the clause. Thus the use of the dependent imperfective alone may induce a temporal protasis interpretation:

(97)   *tà   vò   mbítsá   tá   vú*
         IMPF   light   Mbitsa   OBJ   fire
         'when Mbitsa lights the fire'

Cf.:

(98) *tà*   *v-ày*   *mbítsá*   *tá*   *vú*
      IMPF   light-PO   Mbitsa   OBJ   fire
      'Mbitsa lights the fire'

(99) *tà*   *skálú-lú*   *tá*   *skálú*   *gírvídìk*
      IMPF   dance-UH   OBJ   dance   night
      'one dances all night and . . .'

Compare the independent imperfective:

(100) *tà*   *skál-áy-lú*   *tá*   *skálú*   *gírvídìk*
      IMPF   dance-PO-UH   OBJ   dance   night
      'They dance all night.'

(101) *tà*   *díf*   *krì*
      IMPF   hide   dog
      'while the dog is hiding'

(102) *tà*   *ksə́*   *krì*
      IMPF   touch   dog
      'while the dog devours'

(103) *tà*   *ksə́-tsí*
      IMPF   touch-3SG
      'while he devours'

The dependent imperfective is used in the comment on the focused element. Since both focused and topicalized elements are fronted, the dependent imperfective is the principal means of coding the focus construction:

(104) *skwì*   *dágálá* *tà*   *màr-tsí*   *mà*   *xídákwá*   *xdí*
      thing   many   PREP   show-3SG   PREP   tradition   Hdi
      ká-'á
      COMP-3SG
      'these are many things that are included in the civilization of Hdi'

(105) *tsá*   *yà*   *tà*   *xgə̀*   *xdí*   *kà*   *másélsél.*
      DEF   COP   IMPF   call   Hdi   as   maselsel
      'That is what Hdi call *maselsel* (*másélsél* 'the rising of the first smoke while the meat is frying' has religious significance. *sèlsélsél* is an ideophone about smoke rising.)

(106) tà   sə   bàɗ   lúmá   tá   ghzú   káwày (Hau.)
     IMPF   drink   day   market   OBJ   beer   only
     'it is only on market days that he drinks beer'

Compare a non-focused construction:

(107) tà   s-ày   bàɗ   lúmá   tá   ghzú   káwày
     IMPF   drink-PO   day   market   OBJ   beer   only
     'he drinks beer on market days only'

6. The progressive aspect

6.1. The form of the progressive aspect

The progressive is formed through the reduplication of the preposition *tà* followed by the reduplicated verbal root. The verb, whether transitive or intransitive, may have the suffix *-ay*. Subject suffixes occur only after the second of the reduplicated forms:

(108) tà   xwáy-áy-xwáy-áy-xən
     IMPF   run-PO-run-PO-3PL
     'they are running'

(109) tà   z-áy-z-áy   tá   ɗàfá   kùl   xàɗ(ú)   ɗàlí
     IMPF   eat-PO-eat-PO   OBJ   food   without   lack   sauce
     'he is eating mush without the sauce'   (action going on right now)
Cf.:
(110) tà   z-áy   tá   ɗàfá   kùl   xàɗ(ú)   ɗàlí
     IMPF   eat-PO   OBJ   food   without   lack   sauce
     'he eats mush without the sauce'

The third-person singular is unmarked:

(111) tà   xwáy-áy-xwáy-áy
     IMPF   run-PO-run-PO
     'he is running'

The object is marked by the preposition *tá*:

(112)   *tà*   *skw-áy-skw-áy*   *tá*   *hlà*
         IMPF   buy-PO-buy-PO   OBJ   cow
         'he is buying a cow'

(113)   *tà*   *gl-áy-glá-íyù*   *tá*   *gù*
         IMPF   grow-PO-grow-1SG   OBJ   goat
         'I am raising a goat'

6.2. The functions of the progressive aspect

The progressive form is used only in pragmatically independent clauses, such as affirmative indicative clauses and questionsabout the truth of a proposition. The progressive is used only with respect to an event going on at the time of speech:

(114)   *tà*   *tsgh-áy*   *tsgh-áy-ká*   *rí*   *krí*   *ká*
         IMPF   send-PO   send-PO-2SG   Q   dog   COMP
         pákáwá ghúvì   ná
         hyena   DEM
         ' "Dog, are you sending them up?" said Hyena.'

(115)   *tà*   *wùd-áy-wùd-áy-xòn*   *tá*   *wùdá*
         SEQ   fight-PO-fight-PO-3PL   OBJ   fight
         'they are fighting'

In pragmatically dependent clauses the reduplicated form does not occur, and instead the dependent imperfective is used:

(116)   *kà*   *wùdò-xòn*   *tá*   *wùdá*
         SEQ   fight-3PL   OBJ   fight
         'and they were fighting.'

But the temporal function is neither the only nor the most important function for which the progressive is used. Along with temporal simultaneity, the progressive is also a means of focusing on the verb. It cannot be used if the focus is on an element other than the verb. Consider the following facts: To the question "Where is he?" or "What is he doing?", the answer could be:

(117) tà   zá   d'àfá
       IMPF   eat food
       'he is eating'

To the question "is he eating?", the answer could also be:

(118) tà   zá   d'àfá
       IMPF   eat food
       'he is eating'
or:
(119) tà   z-áy   z-áy   tá   d'àfá
       IMPF   eat-PO eat-po OBJ   food
       'he is eating'

To the question "What is he eating?", the answer could be:

(120) tà   zá   d'àfá
       IMPF   eat food
       'he is eating mush'

But not:

(121) *tà   z-áy   z-áy   tá   d'àfá
       IMPF   eat-PO eat-PO OBJ   food
       for 'he is eating mush'

Here are a few natural discourse examples illustrating the focusing function of the progressive:

(122) mà   tàbá   tsá   gùlù   nà   tà
       PREP   middle DEF   again DEM   IMPF
       dz-ày dz-ày xəŋ   tá   sàn-à   xíd'á-kw-á-táŋ
       weave-PO-weave-PO OBJ   another-GEN wise-ABS-GEN-3PL
       'In the meantime they were preparing another plan'

If the verb is intransitive and the event is non-referential, the verb occurs in the root form:

(123) tà   vrə-vrə   kd'érì dzághà-nì
       IMPF   return-return Kderi home-3SG
       'and Kderi is returning home'

7. The stative aspect

What makes the stative aspect in Hdi interesting is that it may have in its scope either the affected or the controlling argument of the transitive verb. Moreover, the latter may occur with the object present in the clause.

7.1. The form of the stative

The stative aspect is marked by the associative preposition *ndá* followed by a non-reduplicated verbal stem ending in the vowel *a*. The presence of the simple rather than the reduplicated form is explained by the fact that the reduplicated form codes bounded events, and the stative is inherently unbounded:

(124) *ndá   xàlá   tsá   sígà   yá*
       STAT   used   DEF   pot   DEM
       'the used pot'

In the stative aspect verbs cannot take extensions coding the semantic role of arguments or the directionality of the event. Thus the verb *mt* 'die' in the perfective aspect takes the source-oriented extension *u*. In the stative aspect it occurs only with the vowel *á*:

(125) *ndá   mtá   dá-ní*
       STAT   die   father-3SG
       'his father is dead'

The absence of extensions again correlates with the stative nature of the event. All extensions add the value of referentiality to the event and hence delimit the event in one way or another.

The stative aspect may be a nominal category, as evidenced by the fact that it does not differ from nominal predicates:

(126) *xwáyà-n-xwá-í   yá   ná   àmá   ndá   xúl-í*
       run-3-run-1SG   COMP   COMP   but   STAT   back-1SG
       'Although I ran, I was late'

7.2. Object coding in the stative aspect

The stative form may also occur with verbs of perception and of cognition, when the perceiving subject is not agentive. In such cases the verb may be followed by an object. The verb ends in high tone before the object as well. Unlike in other clauses, all objects, whether nominal or pronominal, are preceded by the object-marking preposition *tá*:

(127) *ndá   sná   tá   plìs-á-ɗà*
      STAT   know   OBJ   horse-GEN-1SG
      'he knows my horse'

(128) *ndá   ńghá   tá   plìs-á-ɗà*
      STAT   see   OBJ   horse-GEN-1SG
      'he saw my horse'

The verb cannot take pronominal object suffixes. Recall that in dynamic aspects the third-person pronominal object of verbs of perception is marked by the form -*n*.

(129) *wúyà   ndá   sná-ŋnì   tá   kághúní*
      since STAT   know-1PL.EXCL   OBJ   2PL
      'since we know you'

(130) *ndá   sná-ká   rí   sárák,*
      STAT   know-2SG   Q   stick
      'do you understand me, stick?'

7.3. The functions of the stative aspect

The core function of *ndá* is to indicate the existence of a certain state with respect to the subject of the clause. Evidence that the form marked by *ndá* is an aspectual category is provided by restrictions on its occurrence together with other aspectual markers, such as the perfective marked through reduplication. The perfective form indicates a definite end of the event, while the stative form does not:

(131) *ndá   ŋgh-íyù   tá   xàn   mà   vwàx*
      STAT   see-1SG   OBJ   3PL   PREP field
      'I saw them in the field'

(132) *ndá   sn-í   tsátsí   tà   dzà'á*
       STAT   know-1SG 3SG   IMPF   go
       'I knew that he will go'

(133) *ndá   bágh-í*
       STAT   satisfy-1SG
       'I am satisfied'
Compare the perfective:

(134) *bághá-f-bágh-í*
       satisfy-UP-satisfy-1SG
       'I was satisfied'

The function of the stative aspect is to a code a state resulting from an action, an event rather than a natural state of things. When the verb is transitive and there is only one argument, this argument is interpreted as being in the state evoked by the verb:

(135) *ndá   xná   hlà*
       STAT   cut   cow
       'the cow is slaughtered'

(136) *ndá   sá   ìmí*
       STAT   drink   water
       'the water is drunk up'

(137) *ndá   skwá   hlà*
       STAT   buy   cow
       'the cow is sold'

An additional piece of evidence for the stative meaning is provided by the types of predicates with which *ndá* occurs and by the types of predicates with which it cannot occur. The stative marker occurs in clauses where stativity is compatible with the meaning of the predicate, for example, with the verb *sná* 'know':

(138) *kàbgà   m̀ndrá tsá   m̀ndú-xà   yá   yà   ndá   snà*
       because   clan   DEF   man-PL   DEM   DEM   STAT   know
       tá   tsáf-tá   dùvúl   yà   ngá   lmú   ndá   tsí
       OBJ   make-REF metal   DEM   FOR   war   ASSC   3SG
       'it is because this clan knows how to make metals to go to war with'

(139) *ndá   sná-ká   rí   sáràk,   hlɜv-í-ď-í-p-hlɜvà*
STAT   know-2SG Q   stick   hit.PL-AWAY-1SG-EP-UP-hit.PL
'you understand, stick, hit them for me'

The subject may be a notional patient or experiencer, as in the examples given above, but it may also be an agent:

(140) *ndá   mágá   hlɜná   ghúní   ká   kďérí*
STAT   make   work   2PL   COMP   Kderi
' "you worked well," said Kderi' (i.e., 'I thank you')

The pronominal subject of a stative construction is coded by the subject forms of the pronoun, even though it represents the affected argument, as in the following example where the expression *dzá-ká* 'hit-2SG' has the subject rather than the object pronoun:

(141) *kà   lívínà   á   ká   tá   ksá   hlɜnà*
SEQ   be able   NEG   2SG   OBJ   touch   work
msím msím   má   wù   ndá   dzá-ká
fast fast   or   not   STAT   hit-2SG
ndá   xɜrfá-ká   má   ndá   dzá-ká
STAT   tiredness-2SG   or   STAT   hit-2SG
'whether you are able to work fast or not you will be hit; whether you are tired or not, you will be hit'

With punctual verbs of perception, the stative form codes non-punctual characteristics of the event:

(142) *ndá   ṅgh-íyù   tá   mbítsá   tà   lúmá*
STAT   see-1SG   OBJ   Mbitsa   PREP   market
'I saw Mbitsa at the market'

Compare the perfective:

(143) *ṅghà-ṅgh-íyù   tá   mbítsá   tà   lúmá*
see-see-1SG   OBJ   Mbitsa   PREP   market
'I spotted Mbitsa at the market'

If the subject of the clause is in the scope of the stative, no agent can be added:

(144)   *hlà   ndá   xná   dà   mbítsá
         cow   STAT   slaughter   PREP   Mbitsa
         for 'the cow is slaughtered by Mbitsa'

The stative marker cannot occur in a negative clause, and instead the dependent imperfective is used:

(145)   *ndá   sn-í   tá   gwàdá   xdí   wà
         STAT   know-1SG   OBJ   language   Hdi   NEG
         for 'I do not know Hdi'
Cf.:
(146)   sn-ì   tá   gwàdá   xdí   wà
         know-1SG   OBJ   language   Hdi   NEG
         'I do not know Hdi'

The explanation for this constraint on the occurrence of the stative marker and negation lies in the postulated grammaticalization of the stative marker from the associative preposition *ndá* 'with'. The inherent meaning of *ndá* is an affirmative whose logical form is 'be with'. Hdi has a negative equivalent of this affirmative form, which is *xàd* 'lack'. Hence the use of affirmative-only form with negation would constitute an internal contradiction between two forms within the same proposition.

The stative marker cannot occur with predicates that indicate the acquisition of a state. The perfective form of the verb must be used instead:

(147)   dzà'á   snà-n-sná   ká   tá   gwàdá   xdí
         FUT   know-3-know   2SG   OBJ   language   Hdi
         'you should learn Hdi'

The unspecified object form cannot occur with the stative marker:

(148)   *ndá   gl-áy   Mbítsá
         STAT   grow-PO   Mbitsa
         for 'Mbitsa is big'

7.4. The grammaticalization of the stative aspect

The stative aspect grammaticalized in several steps from the associative preposition *ndá*: (1) The associative marker becomes the possessive marker. In the absence of the verb "to have", the possessive clause is realized by the construction Associative Noun phrase Noun phrase NP. The

coding of possession through associative construction is common in African and non-African languages. (2) In the possessive construction, the place of the possessum can be taken by an intransitive or a transitive verb. The notion of "having" is thus extended from having an object to having, or being in, a state expressed by a transitive or intransitive verb.

8. Conclusions

The aspectual system of Hdi has two functions: one is to code aspectual distinctions, and the other is to code the pragmatic status of the clause. Two aspects, perfective and imperfective, have two forms each, one for the coding of pragmatically independent clauses and one for the coding of pragmatically dependent clauses. The perfective through reduplication codes the pragmatically independent clause. It is used at the beginning of narratives, conversations, and paragraphs. The perfective through the suffix *tá* codes pragmatically dependent clauses. The distinction between the two types of imperfective is marked through word order and suffixes to the verb. Transitive verbs in the imperfective in pragmatically dependent clauses do not have potential object marker *-áy*. In the progressive aspect (a subclass of the imperfective) and in the stative aspect there is no distinction between pragmatically dependent and pragmatically independent clauses.

Chapter 13

Coding the domain
of referentiality of an event

1. Introduction

There exists in Hdi a functional domain of referentiality of events, where the distinction is between referential (marked) and non-referential (unmarked) events. The referentiality of the event is coded by the suffix -*ta*, glossed as "REF", added to the verb in the perfective or imperfective aspect.

The marker -*ta* codes reference to real world phenomena. The event is made referential if it affects a referential object or a referential predicate.

2. Referentiality of object

If the object is hypothetical, i.e. non-referential, the suffix -*áy* is used to code such an object:

(1) *xìyá*   *(ná)*   *xàɗ-ká*   *tà*   *dzáw-áy*   *wà*
    guinea corn   COMP   lack-2SG   IMPF   trade:PL-PO   NEG
    'guinea corn, you do not sell'[9]

If the object is referential, made so through a previous mention in discourse or present in the environment of speech, the verb has the suffix -*tá*:

(2) *tsá*   *xìyá*   *yá*   *ná*   *xàɗ-ká*   *tà*
    DEF   guinea corn   DEM   COMP   lack-2SG   IMPF
    dzáwá-tà   *wà*
    trade:PL-REF   NEG
    'the guinea corn [previously mentioned], you do not sell'

(3) *yá   xìyá   yá   ná   xàɗ-ká   tà*
     DEM   guinea-corn   DEM   TOP   lack-2SG   IMPF
     dzáwá-tà   wà
     trade:PL-REF   NEG
     'this guinea corn here, you do not sell'

3. Referentiality and the perfective

The referential marker -*ta* cannot be added to the reduplicated form of the verb. This constraint follows directly from the proposed function of the marker *tá* and the function of the reduplicated form of the verb. The reduplicated form of the verb codes a bounded event. The boundedness makes it a specific, referential event:

(4) *ghwálá-ghwálá   tá   zíndíŋ*
     dry-dry   OBJ   germinated guinea corn
     'he dried the germinated guinea corn' (for the brewing of beer)

The marker -*tá* is not used with such a verb, because the referentiality is already coded by the form of the verb. The co-occurrence of the reduplicated verb and the marker -*ta* would result in tautological coding. The cooccurrence of the reduplicated form of the verb and the marker -*ay* would be an internal contradiction of the coding means because the marker -*áy* specifically codes potential objects, hence the occurrence of *ay* with a bounded event would be contradictory.

The marker -*tá* can be used in the dependent perfective and imperfective aspects, with intransitive and transitive events:

(5) *kà   ghwálá-tá   zíndíŋ*
     SEQ   dry-REF   germinated guinea corn
     'and germinated guinea corn has dried'

Compare the imperfective:

(6) *tà   ghwálá-tá   zíndíŋ*
     IMPF   dry-REF   germinated guinea corn
     'while germinated guinea corn has been drying'

(7) *kà   ghwálá-tá-tsí   tá   zíndíŋ*
     SEQ   dry-REF-3SG   OBJ   germinated guinea corn
     'and he dried the germinated guinea corn'

(8)   tà   ghwálá-tá-tsí   tá   zíndíŋ
       IMPF   dry-REF-3SG   OBJ   germinated guinea corn
       'while he was drying the germinated guinea corn'

4. Referentiality of the event and adjuncts

The presence of adjuncts specifying time makes the event referential:

(9)   mà   sán-à   fitík   mbàdˀ   ká
       PREP   other-GEN   time   then   COMP
       ì   pákáwá ghúvì   kà   nzà-tà   ndá   krì
       ASSC.PL   hyena   SEQ   stay-REF   ASSC   dog
       'At one time, Hyena and Dog lived together.'

The referential marker can be used as a diagnostic of whether the sequence of verbs in a clause represents one event or several events. If it is one event, the referential marker is used only once, with the last verb:

(10)   kà   l-íyù   ngás-í-n-tá   vú   mìstá   mbízà
        SEQ   go-1SG   push in-AWAY-3-REF   fire   under   bean dish
        ká   pákáw ghúvì
        COMP   hyena
        ' "I have to push in the fire under the bean dish," said Hyena.'

The intransitive verbs lá 'go', hli 'depart', and sá 'come' have the referential marker i instead of tá. Like the marker tá, marker í occurs after extensions:

(11)   kà   lá-úgh-í   ùvá   dˀífà-úgh-tà   mà   tùghwázàk
        SEQ   go-D:SO-REF   cat   hide-SO-REF   PREP   hibiscus
        'And Cat went and hid in the hibiscus.'

The event is referential if it took place at a well-determined time, e.g. after another event:

(12)   mbàdˀ   ká   krì   kà   lá-b-ì
        then   COMP   dog   SEQ   depart-OUT-REF
        'Then Dog went away.'

(13)   *mbàɗ*   *ká*   *krì*   *kà*   *sá-ghw-í*
        then   COMP   dog   SEQ   arrive-D:SO-REF
        'Then Dog came.'

5. Aspect coding in sequential clauses and in the normative mood

Sequential clauses and normative mood have one feature in common, viz., they are marked by particles preceding the verb. There is a constraint that does not allow more than one particle from the tense-aspect-mood domains to precede the verb. Consequently, if the clause is marked for one of these categories, another category cannot be marked by the particle. The imperfective marker *tà* used in the unmarked clauses cannot be used if the sequential particle *kà* or the normative mood particle *ngá* is used. Consequently, in sequential clauses marked by the particle *kà*, the imperfective of intransitive verbs is coded only by the nominalized form of the verb:

(14)   *mbàɗ*   *ká*   *xɔ̀n*   *kà*   *xwáyá*
        then   COMP   3PL   SEQ   run
        'And they were running.'

Transitive verbs in the perfective aspect have the suffix *-tá* and, in the imperfective aspect, the suffix *-ay*. Consider the following clauses that follow each other in a narrative. The first one is perfective marked by the suffix *-ta* and the second is imperfective marked by the suffix *-áy*:

(15)   *mbàɗ*   *ká*   *pákáwá ghúvì*   *kà*   *xvá-tá*   *xvá*
        then   COMP   hyena   SEQ   farm-REF   farm
        'Hyena had already farmed.' (It finished farming.)

(16)   *mbàɗ*   *ká*   *xɔ̀n*   *kà*   *ɗg-áy*
        then   COMP   3PL   SEQ   thresh-PO
        'And they were threshing.'

Evidence that the marker *-áy* has the function of coding an unspecified object is provided by the fact that *-ay* cannot be omitted from intransitive verbs unless it is replaced by an object:

(17)   *mbàɗ   ká-xən   tàmá   kà   dghàɗ-áy*
         then   COMP-3PL finally   SEQ   chew-PO
         'And now they are chewing.'

(18)   **mbàɗ   ká-xən   tàmá kà   dghàɗá*
         then   COMP-3PL   finally SEQ   chew
         for 'And now they are chewing.'

(19)   *mbàɗ ká-xən   tàmá   kà   dghàɗá   ùrná*
         then   COMP-3PL   finally   SEQ   chew   peanuts
         'And now they are chewing peanuts.'

The marker *áy* has acquired the function of coding imperfectivity as evidenced by the fact that it is codes temporal simultaneity in a protasis clause:

(20)   *xwáy-áy-tán   tá   xwáyá*
         run-PO-3PL   OBJ   run
         'While they were running'

(21)   *ɗg-áy-tán   tá   ɗgú   yá . . .*
         thresh-PO-3PL OBJ   threshing DEM
         'While they were threshing'

Compare the perfective aspect in the temporal protasis clause:

(22)   *ɗgá-tà-tán   tá   ɗgú   yá . . .*
         thresh-REF-3PL   OBJ   threshing DEM
         'After they threshed . . .'

Additional evidence for the referential versus non-referential functions of the markers -*ta* and -*ay* is provided by their use in the same mood and the same aspect: The marker -*áy* codes a non-referential event, and the marker -*ta* a referential one:

(23)   *tà   xúl-á   vàkú xìs   ngá   pgh-ày-ní*
         PREP back-GEN year   two   NORM pour-PO-3SG
         tá   pghù
         OBJ   libation
         'After two years he should pour a libation.' (i.e. proceed with the initiation)

(24) *tà   xúl-á   dà   tá   ghzú   ngá   pghá-tá*
      PREP   back-GEN   cook   OBJ   beer   NORM   pour-REF
      sìfí   mà   glífín
      dregs   PREP   glifin
      'After the beer has been cooked, one should pour out the dregs
      into a *glifin.*' (Dregs are referential, the product that is always as
      sociated with beer making. A *glifin* is a clay pot for dregs or
      inedible animal parts.)

Additional evidence for the imperfective coding of the marker *-áy* and the
perfective coding of the marker *tá* is provided by their use when a verb is
followed by a complement. The verb has to have an object marker. The
marker *áy* is used to code imperfective and the marker *tá* is used to code
perfective aspect:

(25) *mbàɗ   ká   pákáwá ghúvì   kà   tx-áy   kà   zlày . . .*
      then   COMP   hyena   SEQ   expel-PO   SEQ   COMP
      'then, hyena says like that: . . .'

(26) *mbàɗ   ká   pákáwá ghúvì   kà   txá-tà . . .*
      then   COMP   hyena   SEQ   expel-REF
      kà   zlày
      SEQ   COMP
      'then, hyena said like that: . . .'

A predicate followed by a complement must have an object marked.
The object markers have a double function: coding the object and coding
the referentiality or the aspect of the event:

(27) *mbàɗ   ká   kà   ńghà-dá-ghà-tà   ná . . .*
      then   COMP   SEQ   look-ALL-D:PVG-REF   COMP
      'he noticed that . . .'

(28) *tà   ńghà-dá-ghà-tá-tsí   ná . . .*
      IMPF   look-ALL-D:PVG-REF-3SG   DEM
      'while he was noticing that . . .'

The potential object marker *-áy* cannot be used if the verb is followed by
extensions:

(29) *tà   ŋghà-dá-gh-áy-tsí   ná . . .
      IMPF look-ALL-D:PVG-PO-3SG   DEM
      for 'while he was noticing that . . .'

A pronominal object added to a verb narrows the scope of the predicate and makes the event referential. Consequently, a verb with an object has the referential marker -*ta* in both the imperfective and the perfective aspects:

(30) *mbàď ká   krì   kà   lá-ghà   zlghà-n-tà*
      then COMP dog   SEQ   go-D:PVG   help-3-REF
      'Then Dog helped him.'

(31) **mbàď ká   krì   kà   lá-ghà   zlghá-n-áy*
      then COMP dog   SEQ   go-D:PVG   help-3-PO
      for 'Then Dog helped him.'

If the verb is transitive and there is no other object, the suffix -*áy* must be added:

(32) *mbàď ká   krì   kà   lá-ghà   zlghá-áy*
      then COMP dog   SEQ   go-D:PVG   help-PO
      'Then Dog was helping.'

Some extensions make the event referential, and the marker -*ta* must occur when those extensions are used. Without such extensions the marker is not required:

(33) *kà   l-íyù   ngás-í-n-tá   vú   mìstá*
      SEQ   go-1SG   push in-AWAY-3-REF   fire   under
      mbízà   ká   pákáw ghúvì
      bean dish   COMP   hyena
      ' "I have to push in the fire under the bean dish," said Hyena.'

(34) *kà   l-íyù   ngásá   vú   mìstá   mbízà*
      SEQ   go-1SG   push   fire   under   bean dish
      ká   pákáw ghúvì
      COMP   hyena
      ' "I have to push in the fire under the bean dish," said Hyena.'

Not all verbs with extensions have to have the referential marker -*tá*. Two verbs of movement, *lá* 'go, depart' and *sá* 'arrive, come', do not allow the referential marker -*tá* if they have an extension:

(35)   *xàɗɔ́-xɔ̀n   tà   lá-xà   wà*
         lack-3PL   IMPF   go-down   NEG
         'they do not go down'

6. Conclusions

The language codes the referentiality of the event with the suffix -*tá* added to the verb. The referentiality of the event may involve any of the following: (1) referentiality of the object; (2) boundedness of the event in sequential clauses; and (3) presence of verbal extensions. The referential function of the marker -*ta* allows one to explain why it does not occur in negative clauses. That is because their events did not happen and are therefore inherently non-referential.

The potential object marker -*áy* codes non-referential objects with transitive verbs, and with complements of verbs of saying. It cannot occur if the verb has an extension, but it can follow a verb without extensions.

Chapter 14

Tense

1. Introduction

We use the term *tense* for the coding of temporal distinctions only. There are only three tense categories: the referential past and two future tenses. If a clause does not have any of the formal characteristics associated with the three tenses, its tense is unmarked, and any interpretation of the actual or relative time of the event has to be made on the basis of discourse configuration of events; aspectual characteristics, adverbs of time and other deictic categories, including extensions; and individual lexical items involved in the discourse. For example, clauses in the perfective aspect and verbs with the affected subject extension *ú* are often interpreted as in the past time, while clauses in the stative and imperfective aspects are often interpreted as involving the time of speech.

2. Referential past tense

We postulate the existense of the category *referential past* on the basis of the function performed by the particle *sí*. The form *sí* occurs at the beginning of the clause. We gloss this morpheme as "PAST", but this designation means "referential past tense" rather than "past tense". The time so referred to may be recent or remote. The form designates events that happened at some well-determined period of time:

(1) *ìná gùlí kà snà-n-tà índà mìndú-xà tà*
     good again SEQ know-3-REF all man-PL PREP
     kùmà kàkí sí ndzà-kw-á xdì
     front how PAST stay-ABS-GEN hdi
     'it would be good if the future generation knows how Hdi used to live'

The determination of the period of time can be achieved through an adverb of time or through a reference to an event in the preceding sentence

or discourse. In the following example the time reference occurs in the same clause:

(2)   ká-xən   mántsá,   sí   ndá   gá   ká   ndá
       comp-3PL like that   PAST ASSC where 2SG ASSC
       rvídìk
       night
       'and they said: where were you last night?'

In the following example, which in natural discourse follows the preceding one, the time reference is the one mentioned in the preceding example:

(3)   sí   tà   zá   wlíwá-dì   ndá   tà'á   grà,   ká-'á
       PAST IMPF eat   walk-1SG   ASSC   PREP-DEM friend COMP-3S
       'I was taking a walk on the other side, my friend, he said'

Similarly in the following example, the specific past refers to a time mentioned in a preceding discourse:

(4)   sí   hlí'yá-f   dá   ráyá-ŋní   mà   mták
       PAST leave-UP   PURP   hunt-1PL.EXCL in   bush
       'we were hunting in the bush' (answer to the question: Where were you last night?)

The marker *sí* may occur in negative clauses, though only in the ones formed with the auxiliary *xàdú* 'not to be':

(5)   tà   xúlá   zl-í-n-tà   lá   dəblám   tá
       PREP   back   chase-AWAY-REF   COLL   Deblem   OBJ
       gùdòlú   gà   xdí   sí   tá   xàdú   lmú
       Gudulu   PREP   Hdi   PAST   COM   lack   war
       kátá-kátá   sí   zlày   gà   xdí   wù.
       a lot   PAST   time   PREP   Hdi   NEG
       'After the Diblem people had chased the Gudulu away, there was no dangerous warfare at that time in Hdi.'

The form *sí* may occur in interrogative clauses, again with a specific time in the past as a reference:

(6) *tíkvá gavlì*   *tà*   *mn-áy*   *kà*   *zláy*   *nà*   *sí*
     Tikva Gavli   IMPF   say-PO   SEQ   COMP   COMP   PAST
     m̀ndú   *dzì'í*   *rà*
     man   kill-1SG   Q
     'Tikva Gavli said thus: Is it a man that I killed?' (*sí* describes some specific time preceding the discourse. There is no question that Tikva Gavli killed a man.)

The marker *sí* is also used in conditional protasis clauses:

(7) *ká*   *ùvá*   *mántsá*   *má*   *sí*   *tà*   *dzá-'í*
     COMP   cat   COMP   HYP   PAST   IMPF   go-1SG
     mndán   *ná*   *á*   *dúŋ*   *àká*   *dá*   *xgà-n-tá*
     but   DEM   COND   except   2SG   FUT   call-3-REF
     krì   *ká*   *ùvá*
     dog   COMP   cat
     'Cat answered, "I might go, but on condition that you do not invite Dog." ' (lit. 'but will you invite a dog?')

If the time in the past is non-specific, viz. any past time, the marker *sí* is not used and the past time is not overtly marked.

The referential past marker may occur with verbal and non-verbal clauses alike:

(8) *sí*   *tà*   *lúm-íyù* . . .   *sí*   *tà*   *lúmá-ká* . . .
     PAST   PREP   market-1SG   PAST   PREP   market-2SG
     'I was at the market . . .'   'you were at the market . . .'

3. Future tenses

There are three structures involved in the formation of the future tense. In two structures the verb *dzà'á* 'go' is used with the perfective aspect, in another with the imperfective aspect, and in the third the simple verb stem is used without the auxiliary verb. This structure is involved in the formation of the negative future tense.

The evidence that *dzà'á* is a tense rather than an aspectual marker is provided by the fact that it cannot occur with the referential past marker *sí* and by the fact that it can occur with different aspectual markers. The auxiliary *dzà'á* can occur with the reduplicated and with the simple form of the verb.

3.1. Future tense with the perfective aspect: Pragmatically independent clauses

The reduplicated form of the verb is used in the coding of the perfective aspect in pragmatically independent clauses, e.g. in declarative clauses with no element in focus, and in yes/no questions:

(9)   *dzà'á   skwá-p-skwá   nàsàrá-ngrá*
       FUT   buy-OUT-buy   white-black
       'the boss will sell it' ('boss' an educated black person)

(10)   *tà   xúl-á   skálú   dzà'á   sá-ghà-sá*
       PREP   back-GEN   dance   FUT   arrive-D:PVG-arrive
       màràkw   gá   sàrd̉ək   ndá   lá   dá-ní
       woman   PREP   morning   ASSC   COLL   father-3SG
       'After the dance the woman will come in the morning, together with her parents.'

(11)   *dzà'á   phlá-phlá-xə̀ŋ   tá   mìndú,*
       FUT   kill.PL-kill.PL-3PL   OBJ   man
       'they will kill [all of us] . . . '

3.2. Future tense with the perfective aspect: Pragmatically dependent clauses

The future in pragmatically dependent clauses is formed through use of the auxiliary verb *dzà'á* with the simple stem of the main verb. Here is an example of the future tense in a comment-on-focus clause:

(12)   *tà   xúl-á   skálú   dzà'á   sá-ghà   màràkw*
       PREP   back-GEN   dance   FUT   arrive-D:PVG   woman
       ndá   lá   dá-ní   gá   sàrd̉ək
       ASSC   COLL   father-3SG   PREP   morning
       'It is after the dance that the woman will come with her parents in the morning'

If the verb is followed by a subject pronoun, the verb ends in the vowel *a*:

(13)   *tà*   *ká ghúní*   *dzà'á*   *pghá-ŋní*   *tá*   *ngùdùf*
          PREP   on 2PL   FUT   pour-1PL.EXCL   OBJ   heart
          ká   *xəŋ*
          COMP   3PL
          ' "It is on you that we will pour our anger," they said'

Presentative:

(14)   *tà*   *ná*   *sáràk*   *ná*   *dzà'á*   *zá-ká*   *tá*   *m̀ghám*
          PREP   DEM   stick   DEM   FUT   eat-2SG   PREP   chief
          'Because of this stick here you will live happily' (lit. 'eat royally')

The verb may be followed by an object, with the subject following the object. This structure is used for contrastive focus on the subject:

(15)   *dzà'á*   *mná*   *púrkútúndzúm-í*
          FUT   say   story-1SG
          '[as for me] I am going to tell a story . . . '

3.3. Future tense with the imperfective aspect

In the future imperfective aspect the verb occurs in the nominal form, as it does in the independent imperfective aspect:

(16)   *dzà'á*   *xàní*
          fut   lie.PL:VN
          'he will sleep'

The referential event in the imperfective is coded by the marker *ta*:

(17)   *dzà'á*   *xnà-tà*
          FUT   lie-REF
          'he will lie down'

(18)   *dzà'á*   *hlǝv-áy*   *tá*   *índà*   *m̀ndú-xà*
          FUT   hit-PO   OBJ   all   man-PL
          'he will hit everybody'

(19)   *dzà'á*   *ǹgh-áy-ká*   *tí-í*   *màxtsím*
          FUT   see-PO-2SG   OBJ-1SG   tomorrow
          'you will see me tomorrow'

The pronominal object may also be affixed to the verb:

(20)   *dzà'á   ngh-í-ká   màxtsím*
      FUT   see-1SG-2SG   tomorrow
      'you will see me tomorrow'

3.4. The future tense in the negative clause

The future tense in the negative clause is not marked by the auxiliary *dzà'á*. Instead the simple stem of the verb followed by the referential suffix *tà* (with low tone) and by the negative frame *á . . . wà* is used. This construction is limited only to the negative future:

(21)   *ks-ú-tà   á   krì   tá   ùvá   wà*
      devour-SO-REF   NEG   dog   OBJ   cat   NEG
      'the dog will not devour the cat'

Compare the affirmative future:

(22)   *kà   dzà'á   krì   ks-ú-tá   ùvá*
      SEQ   FUT   dog   devour-SO-REF   cat
      'and the dog will devour the cat'

The referential marker is used regardless of whether the verb has an extension, and regardless of whether the verb is transitive or intransitive:

(23)   *xnà-tà   á   krì   wà*
      lie-REF:SUBJ   NEG   dog   NEG
      'the dog will not lie'

If the subject following the verb begins with a vowel, the vowel replaces the negative marker *á* and assumes its tone:

(24)   *xgà-n-tì   í   tá   ùvá   wà   ká*
      call-3-REF:SUBJ   NEG:1SG   OBJ   cat   NEG   COMP
      yàghí
      squirrel
      ' "I am not going to invite Cat," said Squirrel.'

(25) *skwá-ná-p-tì*   *í*   *tá*   *hlà-ɗá*   *wà*
buy-3SG-OUT-REF:SUBJ   NEG:1SG   OBJ   cow-1SG   NEG
'I will not sell my cow to him'

4. Conclusions

The category *tense* comprises one referential past tense formed by the clause-initial marker *sí* and several forms of future tenses. The affirmative future tenses are all marked by the auxiliary *dzà'á*, which grammaticalized from the verb *dzà'á* 'go'. There is a distinction between the perfective and the imperfective aspect in the future tense, and within the perfective aspect there is a distinction between the future perfective in a pragmatically dependent clause and the future perfective in a pragmatically independent clause.

The negative future is marked by a simple form of the verb followed by the referential marker *tà* (low tone) and the negative frame *á . . . wà*.

Chapter 15

Verbless clauses

1. Introduction

Verbless clauses in Hdi include clauses with nominal, pronominal, or adjectival predicates. Equational clauses are clauses that assert the identity of two nominal referents or the inclusion of one nominal referent in the set represented by another nominal referent (e.g., John is a soldier). The important question for equational clauses is how the language distinguishes between subject and predicate when both of them are nominal. In Hdi the distinction between the two is marked by word order: The noun phrase at the beginning of the clause is the predicate and the noun phrase following it is the subject. Thus, the order Predicate Subject is not a property of verbs alone but rather is a general property of the predication system in this language.

Verbless clauses cannot be marked for aspect, but they can be marked for tense. This may be explained by the fact that the perfective and imperfective aspects involve different forms of verbs, forms that are not available with nouns. However, tense categories are marked through independent morphemes occurring at the beginning of the clause, and do not depend on the form of the predicate. In the next two sections, we describe clauses that have the order Predicate Subject, and then discuss the function of the order Subject Predicate. In verbless clauses (as well as in verbal clauses with well-determined exceptions) the subject role of the noun phrase is marked by the high tone on the syllable preceding it.

2. Coding the predicate and the subject through word order

The distinction between subject and predicate is marked through word order. The predicate is the first noun phrase and the subject the noun phrase that follows:

(1)   ǹnd-á   ráyá   mbítsá
       man-GEN   hunt   Mbitsa
       'Mbitsa is a hunter'

If the subject is pronominal, it is drawn either from the verbal set or from the independent set, and it follows the predicate noun phrase:

(2)   ɗghá-mú/ŋní
       blacksmith-1PL.INCL/1PL.EXCL
       'we are blacksmiths'

(3)   klùgà   wú   kághá   klùgà
       plate   what thing   2SG   plate
       "'You are a plate of what, Plate?'"

(4)   klùgà   ɗàf-í   ká-'á
       plate   food-1SG   COMP-3SG
       ' "I am a plate of food," he said'

(5)   xdí-xə̀n
       Hdi-3PL
       'they are Hdi'

3. Identificational clauses

We use the term *identificational clauses* for clauses whose subject has been mentioned in the previous discourse or been present in the discourse environment, but is not overtly marked in the clause. In English, such expressions have the form 'it is X'. In Hdi such sentences have the form Noun phrase Copula, where the noun phrase is the predicate. The subject is not overtly marked. The copula could be any of the series of demonstratives, but with low rather than high tone: à, nà, or yà. The last tone of the noun must be high before the copula, regardless of the underlying tone of the noun. This is in accordance with the tone-raising rule before subjects in verbal clauses. Thus the low-tone *hlà* 'cow' has high tone before a copula:

(6)   hlá   yà
       cow   COP
       'it is a cow'

The tone-raising rule also applies to nouns with closed syllables:

(7)   *twák   yà/nà/à*
      sheep   COP
      'it is a sheep'   (*twàk* 'sheep')

If the noun is bisyllabic, the tone on the second syllable is raised, but the first tone, if it is low, remains low:

(8)   *mákwá   yà/nà/à*
      girl   COP
      'it is a girl' (*mákwà* 'girl')

      xìyá   yà
      guinea corn   DEM
      'it is guinea corn'

The high tone of the noun remains high before the copula:

(9)   *lúwá   xdí   à*
      village Hdi   COP
      'That is a Hdi village' (talking about a village seen at a distance)

The tonal behavior of nouns before a copula indicates that copulas may in fact be old subjects marked by deictic pronouns, because the raising of the preceding tone is associated with the category *subject*.

The choice of the copula depends on whether the noun phrase was mentioned in the preceding discourse and if the noun phrase is present in the environment of discourse, on the distance between the place of speech and the referent. The copula *yà* is used when the noun phrase has been previously mentioned in discourse, the copula *à* for remote distance, and the copula *nà* for proximate distance:

(10) *bùkwáà-ɗá   yà*
      lie-1SG   COP
      'it is my lie' (i.e., 'I lied')

The noun may be followed by a demonstrative. The copula then follows such a group. The noun retains its underlying tone before the demonstrative:

(11) *twàk   yá   yà*
      sheep   DEM   COP
      'it is only a sheep'

(12)   *mákwà   yá   yà*
       girl   DEM   COP
       'it is only a girl'

The predicate could also be a pronoun, and in such a case the independent form of the pronoun is used. Here are examples with demonstrative *yà* referring to participants in a preceding discourse.

(13)   *íí   yà*   *ú'ú yà*   *ámú   yà*
       1SG   DEM   'it is the two of us'   'it is us'
       'it is me'

       kághá yà   *kághúní   yà*
       'it is you'   'it is you (PL)'

                                       xáxən yà
                                       'it is them'

The proximate copula *nà* may be used only with the second and third persons. This is because the point of reference for the demonstrative is the speaker. If *nà* were to be used for the speaker, the point of reference necessary for the demonstratives would be lost:

(14)   **íí-nà*   *kághá nà*   *tsátsí nà*
       for 'it is me'   'it is you'   'it is him'

The predicate could be a possessive phrase consisting of a possessum and possessor:

(15)   *dá-ɗá   yà*
       father-1SG   COP
       'he is my father'

(16)   *zwáŋ-á   má-ɗá   yà*
       son-GEN   mother-1SG   COP
       'he is my brother' (lit. 'son of my mother')

(17)   *múk-má-ɗá   yà*
       girl-mother-1SG   COP
       'she is my sister' (*múk-má* is probably a fusion of *mákwá* 'girl' and *má* 'mother')

4. Property concept predicates

Property concept words, just like noun phrases, are marked for the predicative function by the clause-initial position. Recall that there are two types of property concept expressions: inherent adjectives, i.e. a category whose inherent function is to modify a noun, and expressions derived from other lexical categories. The property concept expression in the predicative function occurs in the same form as in the attributive function, i.e. with the categorial markers, if any.

The order Predicate Noun is the pragmatically unmarked order. The predicate must end in high tone, just like verbs and nouns before the subject. Thus the adjective *kítíkw* 'small' ends in high tone before the subject:

(18)   *kítíkw   mbítsá*
       small   Mbitsa
       'Mbitsa is small'

High-tone nouns retain their high tone before subjects:

(19)   *tòntòngá   sígà*
       hard   pot
       'the pot is hard'

(20)   *dágálá yá   mìndú yá*
       big   DEM   man   DEM
       'that man is big'

The subject pronouns are drawn from the independent set, but the second-person pronoun can be reduced to *ká*, making it identical with the verbal set of pronouns. Again, the last tone of the predicate must be high, regardless of the predicate's underlying tone:

(21)   *kwítíkw   ìì*
       small   1SG
       'I am small'

       kwítíkw   tsátsí
       small   3SG
       'he is small'

kwítìkw-ká(ghà)
small-2SG
'you are small'

The plural pronouns can be drawn either from the independent set or from the verbal set:

(22)   *kwítíkw   (xá)xən*   *kwítíkw   kúní*   or *kághùní*
       small   3PL   small   2PL
       'they are small'   'you are small'

(23)   *kwítíkw   (á)mù*   *kwítíkw   (á)ŋnì*
       small   1PL.INCL   small   1PL.EXCL
       'we are small'   'we are small'

(24)   *ndá   ú'wáhlá   mbítsá*
       ASSC   big   Mbitsa
       'Mbitsa is large'

(25)   *ndá   hlrá   mbítsá*
       ASSC   tall   Mbitsa
       'Mbitsa is tall'

The subject in predicative constructions with a property concept predicate must be definite or generic. This is probably a universal characteristic of adjectival predicative constructions; compare English *a cow is white*, ungrammatical in non-generic use. If the subject is a noun, it must be modified by a demonstrative, previous-mention marker, or other modifiers. The previous-mention marker is the frame *tsá ... yá*:

(26)   *dágálá   tsá   gù   yá*
       large   DEM   goat   DEM
       'the goat is large'

(27)   *kí'yá   tsá   hlà   yá*
       small   DEM   cow   DEM
       'the cow is small'

5. Property concept predicates through a copula

Property concepts derived through the form *kà* 'like, as', such as *kà lfíd* 'new', *kà dvá* 'red', *kà xótxótà* 'true' (Eguchi 1971), retain this form in the predicative function. These forms must be followed by a copula coding the distance between the referent and speaker:

(28) *kà   ǹghlíŋ yà   lgùt   yá*
      PREP   white   COP   cloth   DEM
      'that cloth is white' (for a cloth indicated by a hand gesture, 'middle distance')

(29) *kà   kùzún-kùzún nà   lgùt   ná*
      PREP   green   COP   cloth   DEM
      'this shirt is green' (for a shirt that one may hold in one's hand)

The negation of predicative constructions with adjectives is realized by the frame *á ... wà*, which encloses the subject of the clause:

(30) *dágálá   á   mbítsá   wà*
      big   NEG   Mbitsa   NEG
      'Mbitsa is not big'

6. Possessive clauses

The term *possessive clause* refers to a clause whose logical function is to express the function of 'X having/possessing Y'. The possessive clause has the structure *ngá*-Possessor (Copula) Possessum. If the possessum is not followed by a deictic marker, no copula can be used:

(31) **ngá-dá   yà   hlà*
      FOR-1sg   COP   cow
      for '[the] cow is mine' (e.g. when talking about a cow among other animals)

(32) **ngá   mbítsá   yà   hlà*
      FOR   Mbitsa   COP   cow
      for '[the] cow is Mbitsa's' (e.g. when talking about a cow among other animals)

If the possessum is followed by a deictic marker, a copula must be used. The copula codes the same distance as the deictic marker and has the same segmental structure. It differs in tone: low on the copula and high on the deictic marker. The copula occurs after a possessive phrase:

(33)   ngá-ghá   à   hlà   á
        POR-2SG   COP   cow   DEM
        'that cow over there is yours'

(34)   ngá   mbítsá   yà   hlà   yá
        POR   Mbitsa   COP   cow   DEM
        'this cow is Mbitsa's'

(35)   ngá   mbítsá   nà   hlà   ná
        POR   Mbitsa   COP   cow   DEM
        'this cow is Mbitsa's'

If the possessum is enclosed in an anaphoric frame, no copula is used:

(36)   ngá-ďá   tsá   hlà   yá
        POR-1SG   DEF   cow   DEM
        'the cow is mine'

(37)   ngá   mbítsá   tsá   hlà   yá
        POR   Mbitsa   DEF   cow   DEM
        'the cow is Mbitsa's'

7. Existential propositions

Existential propositions are formed with the clause-initial predicate màmú 'exist' followed by the subject of the clause and complements, if any:

(38)   màmú   sàn   mghám   tá   kl-áf-tá   màràk   xìs
        exist   certain chief   COM   take-UP-REF   wife   two
        'There was a chief who married two wives.'

The form màmú may be reduced to màá:

(39)   màá   skwì
        exist thing
        'there is a thing' (about a place mentioned earlier in discourse)

The existential verb does not code the number of the subject.

(40) *màmú m̀ghám-xà . . .*
     exist   chief-PL
     'There were chiefs . . . '

The existential verb *màmú* does not occur in negative possessive constructions. Instead the verb *xàdú* 'exist' is used with a negative marker at the end of the clause:

(41) *xàdú m̀ghám-xà   wà . . .*
     exist   chief-PL   NEG
     'There were no chiefs . . . '

(42) *xàd   dà   tsí   wà*
     lack   PREP   3SG   NEG
     'she·doesn't have' (any)

8. The possessive through existential constructions

The existential verb may have a locative complement. When the locative complement is a human noun, the construction has a possessive interpretation:

(43) *màá   hlà   dà   íí*
     exist   cow   PREP   1SG
     'there is a cow at my place' (it may or may not be mine)

(44) *màmú   kóbù   dà   tsí*
     exist   money   PREP   3SG
     'she has money'

(45) *màmú   dà   tsí*
     exist   PREP   3SG
     'she has' (some)

The existential verb *màmú* may be used in a modifying construction:

(46) *m̀ndú-xà   màmú   skw-à-táŋ*
     man-PL   exist   thing-GEN-3PL
     'rich people'

9. Locative sentences: X is located at Y

In locative predicative expressions, the predicate, i.e. the locative phrase, precedes the subject of the clause. The locative phrase has the form Preposition Noun. Prepositions may include *tà* 'at, in'; *mà* 'inside'; and *dà* 'in'; as well as the prepositional complex *mìstá* 'under, together':

(47)   tà   zlə́ŋ   dèrí
        PREP   bed   hat
        'the hat is on the bed'

(48)   mà   zlə́ŋ   dèrí
        PREP   bed   hat
        'the hat is inside the bed'

(49)   mà   ìmí   dèrí
        PREP   water   hat
        'the hat is in the water'

If the subject is pronominal, it follows the locative argument:

(50)   sí   tà   kdíx-í
        PAST   PREP   donkey-1SG
        'I was on a donkey'

(51)   sí   tà   kdíx-ká   rà
        PAST   PREP   donkey-2SG   Q
        'were you on a donkey?'

The prepositional complex *mìstá* can mean codes presence of an object in the vicinity of another, and can include such meanings as "under", "behind", "together", or "with":

(52)   mìstá   zlə́ŋ   dèrí
        PREP   bed   hat
        'the hat is under the bed'

(53)   mìstá   lgùt   dèrí
        PREP   shirt   hat
        'the hat is with the shirt'

The phrase *tà vá* means "on the side of":

(54) *tà*   *vá*   *tá*   *zláŋ*   *dèrí*
PREP   side   PREP   bed   hat
'the hat is on the side of the bed'

Pronominal subjects in locative sentences are verbal rather than independent or possessive:

(55) *tà*   *lúmá-xən*
PREP   market-3PL
'they are at the market'

tà   *lúmá*
PREP   market
'he is at the market'

10. Clause-initial deictic particles

A clause-initial deictic particle *wá* 'here, there' must be followed by different deictics coding the distance between the speaker and the referent.

The form with the remote deictic *á* may be used only when the subject is not in the same location as the speaker.

(56) *wá*   *á*   *gà*   *mókóló*
there   DEM   PREP   Mokolo
'he is in Mokolo' (The speaker is not in Mokolo.)

(57) *wá*   *á*   *ká*
there   DEM   2SG
'there you are!'

wá   *á*   *kúní*
there   DEM   2PL
'there you (PL) are!'

The form with *ná* may be used only if the speaker is in the same location as the subject:

(58) *wá*   *ná*   *gà*   *mókóló*
here   DEM   PREP   Mokolo
he is in Mokolo' (The speaker is in Mokolo.)

When a demonstrative follows the form *wá* and the subject is pronominal, the subject pronoun follows the demonstrative:

(59) *wá*   *á*   *xən*   *gà*   *mókóló*
      there is   DEM   3PL   PREP   Mokolo
      'they are in Mokolo' (The speaker is not in Mokolo.)

When the particle *wá* is followed by the demonstrative *ná* 'here' and the following pronoun begins with a vowel, the vowel of the pronoun may replace the vowel of the demonstrative:

(60) *wá*   *ná*   *í*   *gà*   *mókóló*
      here   DEM   1SG   PREP   Mokolo
      'here I am in Mokolo'

(61) *wá*   *n-í*   *mà*   *rnbá*
      here   DEM-1SG   PREP   kitchen
      'here I am in the kitchen' (in response to Where are you?)

(62) *wá*   *n-ámú*   *mà*   *rnbá*
      here   DEM-1PL   PREP   kitchen
      'here we are in the kitchen'

(63) *wá*   *ná*   *ú'u [wá nú'ú]*   *mà*   *rnbá*
      here   DEM   1DU   PREP   kitchen
      'the two of us are here in the kitchen'

11. Conclusions

There are several types of verbless sentences. In equational sentences, the structure consists of the predicate followed by the subject. Identificational sentences lack a subject; the clause consists of the predicate noun followed by a copula. The copula could be the anaphoric *yà*, the proximate deictic *nà*, or the remote deictic *à*. Locatives of the type "X is on/at Y", etc. do not have a copula. The locative function is coded by prepositions.

Chapter 16

Interrogative clauses

1. Introduction

The discussion of interrogative clauses is divided into two structurally different domains: questions about the truth of the proposition, often referred to in the literature by the Anglocentric term *yes/no questions*; and questions about a specific element of the proposition, often referred to as *wh-questions*. These questions are called 'specific questions' in the present work. All interrogative clauses in Hdi, whether specific or concerning the truth, have Verb Subject Object word order, the same as indicative clauses. The fundamental difference between questions about the truth and specific questions is in the use of the aspectual systems. Questions about the truth, like indicative affirmative clauses, use the independent aspectual system, viz. reduplication of the verb for the perfective, and the nominal form of the verb for the imperfective. Specific interrogative clauses have the dependent aspectual system characterized by the simple form of the verb with the vowel *a* in the perfective, and the root form of the verb in the imperfective.

2. Questions about the truth

There are several means of coding questions about the truth of a whole proposition: One involves tonal changes and the other, clause-final interrogative particles.

2.1. The interrogative through tonal changes

The most frequent coding of the interrogative mood is through tonal change, whereby the last high tone occurring in the clause is further raised. This extra-high tone is marked in the following examples in bold-face:

(1)   vlá-ghá-vlá-xàn   tá   kób-à   ɗá
       give-2SG-give-3PL   OBJ   money-GEN   1SG
       'did they give you my money?'

(2)   dzà'á   gúy-áy-kún   tá   vghá   màxtsfm
       FUT   meet-PO-2PL   OBJ   body   tomorrow
       'will you meet [each other] tomorrow?'

(3)   tà   lúmá   ká
       IMPF market 2SG
       'are you at the market?' (asked of someone who makes a lot of
       noise at home or in some other inappropriate place)

2.2. Clause-final interrogative particles

An interrogative clause may also be marked by clause-final interrogative
particles rà, rí, rè, or r-kè. The markers rí and rà are interchangeable, and
appear to have a neutral interrogative meaning, i.e., the speaker has no as-
sumption about the truth of the proposition:

(4)   xànà-xàná-ká   rà
       spend night-spend night-2SG   Q
       'did you spend the night well?' (greeting in the morning)

(5)   sí   mìndú   dzî'-í   rà
       PAST man   kill-1SG Q
       'was it a man I killed?'

(6)   xdí   ká   rà
       Hdi   2SG   Q
       'are you Hdi?' (genuine question seeking information)

The penultimate syllable of the interrogative clause has high tone, re-
gardless of the inherent tone of the word. Thus the inherently low tone
word krì has high tone when penultimate in an interrogative clause:

(7)   krí   rà
       dog   Q
       'is it a dog?'

Even the interrogative marker itself acquires high tone if it happens to be the penultimate syllable, as when it is followed by the word coding the addressee:

(8)   *ìná*   *vlì*   *xàdà*   *rí*   *grà*
          good   place   there   Q   friend
          'is life good there, my friend?'

3. Rhetorical interrogatives

A rhetorical question about the truth may be marked by interjection *kí* or *ké* added to the general interrogative marker *rà*. The vowel *a* of the general interrogative marker is deleted in the process. The marker *ké* is added only if the answer is known or if the speaker is challenging the addressee:

(9)   *xd-íyù*   *r-ké*   cf. *xd-íyù*   *rà*
          Hdi-1SG   Q-INTERJ   Hdi-1SG   Q
          'am I Hdi?' (sarcastic)   'am I Hdi?'

(10)   *xdí*   *ká*   *r-ké*
        Hdi   2SG   Q-INTERJ
        'are you Hdi?' (The speaker knows, or wants to assert, that the addressee is not Hdi.)

The form *r-ké* is used in greetings, which have an interrogative form but whose pragmatic function is not a question:

(11)   *xànà-xàná-ká*   *r-ké*
         sleep-sleep-2SG   Q-INTERJ
         'how are you?' (a morning greeting)

4. Specific questions

4.1. Introduction

A specific question is a question about a constituent of a proposition that, as a whole, is assumed to be true. Specific questions differ from questions about the truth in the aspectual system used, in the presence of clause-final interrogative markers, and in the optional clause-final interrogative marker, which is *nà* rather than *rà*. The following categories are

coded in specific questions: human participant, non-human participant, place, time, reason. For human and non-human participants, the language also codes the grammatical role of the argument, specifically the categories *subject*, *object*, *associative*, and *head* of the modifying construction. In addition, the specific interrogatives code whether the event is referential or not.

Questions about human participants have the clause-initial interrogative pronoun *wá*, and questions about non-human participants have the clause-initial marker *ń* or *nɔ́*, depending on the requirements of syllable structure rules. Unlike questions about human participants, questions about non-human participants distinguish between questions in the domain de dicto and questions in the domain de re. We describe the distinction between human and non-human participants while describing the formation of questions about equational clauses. Subsequent sections are dedicated to the discussion of the referentiality of arguments, aspect coding, and the coding of the grammatical role of the entity that the question is about.

4.2. Questions about participants in equational clauses

Questions about participants of equational clauses differ from questions about participants of verbal clauses in that the former do not have aspectual markers.

Questions about the general identity of the subject have the sentence-final marker *nà*. This marker is related to the proximate demonstrative *ná* and is identical with the proximate copula *nà*:

(12)   *wá*   *ɗghá*   *nà*
        who   blacksmith   Q
        'who is a blacksmith?'

(13)   *wá*   *tsítsì*   *nà*
        who   3SG   Q
        'who is he/she?' (As in many other languages, it is not polite to use demonstratives in the presence of their human referent.)

(14)   *wá*   *xáxən*   *nà*
        who   3PL   Q
        'who are they?'

Questions about the identity of plural human participants are coded through the associative plural *ì* preceding the marker *wá*:

(15) *ì*   *wá*   *ɗghá*   *nà*
      PL   who   blacksmith   Q
      'who are blacksmiths?'

Questions about the identity of participants can also use the lexeme *xgə* 'name' followed by the genitive marker *á* (which assumes the low tone of *xgə*) and by possessive pronouns. Such a complex follows the interrogative *wá* (human) or *nə* (non-human):

(16) *wá*   *xg-à-ní*
      who   name-GEN-3SG
      'who is he?'

4.3. De dicto *and* de re *domains in specific interrogatives*

If the question is about an inanimate subject, there is a distinction between the domain *de dicto*, i.e. when the speaker does not know the potential set from which the subject is drawn, and the domain *de re*, where the set of potential subjects exists and the speaker knows the set (cf. Frajzyngier 1991). Inanimate subjects in the domain *de dicto* are marked by the question word *nə*. Questions about an inanimate subject from the domain *de re* are marked by the form *nú* 'which thing', which most probably represents a fusion of the form *nə* and the domain *de re* question word *wú*. We write this form as *nú* to represent the phonological changes the two morphemes have undergone.

Compare the two interrogative forms with the same verb *bá* 'build':

(17) *nə*   *bà-f-tsí*
      what   build-UP-3SG
      'what did he build?' (The set of potential objects is wide open.)

(18) *nú*   *bà-f-tsí*
      which thing   build-UP-3SG
      'which one did he build?' (The set of potential objects is known to
      the speaker.)

There is no distinction between the domain *de dicto* and the domain *de re* for human subjects; i.e., the same form is used for questions of the type "who" and "which person out of the set of X".

Both *de dicto* and *de re* question words can be used with the word *xgə* 'name' followed by a possessive pronoun:

(19)   *nə*   *xg-à-ní*
        what   name-GEN-3SG
        'what is it?'

(20)   *nú*   *xg-à-ní*
        which thing   name-GEN-3SG
        'what is it?'

(21)   *nə*   *xg-à-tán*
        what   name-gen-3PL
        'what are they?'

4.4. The copula in specific interrogatives

Questions about identity may have a copula other than *nà*. Asking about the identity of a person at a distance or invisible, one can say:

(22)   *wá*   *yà*
        who   COP
        'who is there?'

(23)   *nə*   *xg-à-ní*   *yà*
        what   name-GEN-3SG   COP
        'what is it?' (for a thing lower down and close to the speaker)

(24)   *nə*   *xg-à-ní*   *à*
        what   name-GEN-3SG   COP
        'what is it?'   (for a thing far away)

4.5. Aspect coding in specific questions

Specific interrogatives are characterized by the selection of the dependent perfective and imperfective aspects. The coding of the perfective aspect depends on which argument the question is about. If the question is about the subject, the perfective is coded by the comment clause marker *tá* preceding the verb and by the simple form of the verb with the final suffix *a*. If the question is about other arguments, there is no comment clause marker *tá*. The imperfective for all arguments is characterized by the preposition *tà* preceding the simple root form of the verb. None of the above-mentioned distinctions applies to questions about arguments of

equational clauses. Table 15 presents the system of aspectual distinction configured with the coding of the argument role in the clause:

Table 15. Aspectual distinctions in specific interrogatives

	Perfective	Imperfective
Subject	*tá* verb + *a*	*tà* verb root (*-ay*)
Object	verb + *a*	verb root

One cannot use the potential object marker *-ay* in specific questions in the imperfective aspect:

(25) **wá   tà   dz-ày-tsí*
        who   IMPF   hit-PO-3SG
        for 'who is he hitting?'

4.6. Questions about the subject in verbal clauses

The clause-final question marker *nà* is optional with interrogative verbal clauses. If the question is about a human subject, the form *wá* is used; if the question is about a non-human subject, the forms *ń* or *nú* are used, depending on the domain to which the subject belongs. Either *wá* or *ń* may occur in clause-initial position. The role of the interrogative word as subject of the clause is computed from the absence of other subjects in the clause and the potential presence of objects in the clause.

Questions about the subject in the perfective aspect are characterized by the comment clause marker *tá* preceding the simple form of the verb and complements, if any. The perfective aspect indicates that the event has ceased, not necessarily the completion of an action. If the verb has extensions, the referential marker must be used in questions about the subject:

(26) *wá   tá   phlà-ná-p-tà*
        who   COM   break:PL-DEM-UP-REF
        'who broke it into pieces?'[10]

(27) *wá   tá   phlà-ŋ-tà*
        who   COM   break:PL-TENT-REF
        'who tried to break it into pieces?'

(28)   nə   tá   klà-gá-ghá-f-tà   tà   ná   fú
       what COM   take-INN-2SG-UP-REF PREP DEM   tree
       ná   nà   ká-'á
       DEM   Q   COMP-3SG
       ' "what brought you here to this tree?" he asked'

If the speaker presupposes that the human subjects are plural, the question word wá is preceded by the associative plural marker ì:

(29)   ì   wá   tá   phlà-ná-p-tà
       ASSC.PL who   COM   break-DEM-UP-REF
       'who were the people who broke it?'

In questions about the subject, if there is an object following the verb, the referential marker tá cannot be used if the verb does not have any extensions:

(30)   nú   tá   bádzá   xgà
       which thing COM   spoil   house
       'which thing has spoiled the house?'

4.7. Questions about the object

The role of the interrogative wá 'who', nə 'what', or nú 'which thing' as object is marked by the fact that the subject of the clause must follow the verb:

(31)   nə   tà   mág-ká   ndá   ná   nà
       what IMPF do-2SG   ASSC   DEM   Q
       'what do you do now?'

(32)   wá   tà   nəgh-ká
       who   IMPF look-2SG
       'who do you see?'

(33)   wá   dzú-n-ká   nà
       who   hit-SO-3-2SG Q
       'who did you hit?'

The third-person singular pronominal subject must always be overtly marked if the question is about the object:

(34)   *wá*   *ghùnà-gá-p-tsí*
who   send-INN-OUT-3SG
'who did he send here?'

(35)   *wá*   *ghùnà-dá-p-tsí*
who   send-ALL-OUT-3SG
'who did he send there?'

(36)   wá   kú-lù   dzá'á   mág-áy   ndá
who   COMP-UH   FUT   make-PO   ASSC
tsá   skwi   tá   vrá   mndú   ndá   xúl   ndá   xúl
DEF   thing   COM   return   man   ASSC   back   ASSC   back
'What should one do with respect to things that turn the man ['s education] back?'

In the imperfective aspect, the referential marker -*tà* (low tone) must be added if the verb has extensions:

(37)   *nə*   *tà*   *nágh-gəl-tà-ká*   *gùlí*
what   IMPF   see:PL-AGAIN-REF-2SG   again
ká   *zwànà*   *lázgláftà*   *ndá*   *kdérí*
COMP   child:PL.GEN   God   ASSC   Kderi
' "what are you looking for again?" said the children of God to Kderi'[11]

(38)   *wá*   *tà*   *ghùnà-gá-p-tà-tsí*
who   IMPF   send-INN-OUT-REF:SUBJ-3SG
'who does he send here?'

(39)   *wá*   *tà*   *ghùnà-dá-p-tà-tsí*
who   IMPF   send-ALL-OUT-REF:SUBJ-3SG
'who does he send there?'

If the question is about plural human objects, that is marked by the associative plural form *ì*:

(40)   *ì*   *wá*   *mbá-ná-f-tsí*   *nà*
ASSC.PL   who   cure-3SG-UP-2SG   Q
'who (PL) did he cure?'

(41)   *nə*   *sí*   *dá-tsí*
     what   PAST   cook-3SG
     'what did she cook?' (The object is not there anymore.)

(42)   *nú*   *z-ú-ká*
     what   eat-SO-2SG
     'what did you eat?'

Questions about objects of inherently intransitive verbs, i.e. verbs that require the marker *na* in affirmative clauses, require this marker also in interrogative clauses:

(43)   *wá*   *mbá-ná-f-tsí*   *nà*
     who   cure-DEM-UP-3SG   Q
     'who did he cure?'

(44)   *wá*   *mbàzá-ná-tsí*   *tá*   *mbàzá*
     who   wash-DEM-3SG   OBJ   wash
     'who did she wash?'

Omission of the pronoun *ná* from the verb is ungrammatical:

(45)   **wá*   *mbàzá-tsí*   *tá*   *mbàzá*
     who   wash-3SG   OBJ   wash
     for 'who did she wash?'

4.8. The role of referential marker *tá*

The referential marker *tá* may be used in specific interrogative clauses, whether with a transitive or an intransitive verb. In specific interrogative clauses the referential marker has low tone if it is followed by the subject or if it occurs in phrase-final position:

(46)   *nə*   *dzà'á*   *dà-ná-tà-tsí*
     what   FUT   cook-DEM-REF:SUBJ-3SG
     'what will he cook for him?'

If the verb has extensions and there is also a nominal object, the referential marker must have high tone; it is realized as *tá*:

(47) *nú*   *tá*   *bádz-í-n-tá*   *xgà*
      which thing COM   spoil-AWAY-3-REF   house
      'which thing has spoiled the house?'

(48) *wá*   *tá*   *ńghà-n-tá*   *dúlà*
      who   COM   see-3-REF   Dula
      'who saw Dula?'

The marker *tá* codes referentiality of the event even if the verb has no extensions or object pronouns. The referential marker directs the hearer to look for an additional interpretation of the event, without necessarily specifying what this interpretation should be:

(49) *wá*   *tá*   *gúná-tá*   *tghà*
      who   COM   open-REF   door
      'who opened the door?' (completely or in such a manner)
Cf.:
(50) *wá*   *tá*   *gúná*   *tghà*
      who   COM   open   door
      'who opened the door?'

(51) *wá*   *tá*   *drá-tá*   *xàsú'ùwà-dà*
      who   COM   burn-REF   wood-1SG
      'who burned my wood?' (e.g. for his own benefit, completely)
Cf.:
(52) *wá*   *tá*   *drá*   *xàsú'ùwà-dà*
      who   COM   burn   wood-1SG
      'who burned my wood?' (The wood is not completely burned.)

The referential marker cannot be used if the object of the verb does not undergo any change:

(53) *wá*   *tá*   *ńghà*   *hlà*
      who   COM   see   cow
      'who watched the cow?'

If the same verb is used with the referential marker, it means "devour":

(54) *wá*   *tá*   *ńghà-tá*   *hlà*
      who   COM   see-ref   cow
      'who devoured the cow?'

Similarly, with the verb *tsúká* 'to sweep', one cannot use a referential marker, because the integrity of the object is not affected:

(55)   *wá*   *tá*   *tsúká*   *wì*   *tghà*
       who   COM   sweep   mouth   house
       'who swept the front of the house?'

(56)   **wá*   *tá*   *tsúká-tá*   *wì*   *tghà*
       who   COM   sweep-REF   mouth   house
       for 'who swept the front of the house?'

An example with an intransitive verb:

(57)   *nú*   *tá*   *xwáyá-úgh-tà*
       which thing   COM   RUN-SO-REF
       'which animal escaped from here?'

If an intransitive verb does not have an extension, no referential marker is added:

(58)   *nú*   *tá*   *xwáyá*
       which thing   COM   run
       'which animal ran away?'

4.9. Use of the copula in specific interrogatives

The question word may be followed by a copula. If the question word is in the *de re* domain, the copula selected is the one that codes the distance between the speaker and the object that the question is about:

(59)   *nú*   *nà*   *skwì*   *xábá-f*   *kághúní*   *tà*
       which thing   COP   thing   attach:PL-UP   2PL   PREP
       xúl   *ná*
       back   DEM
       'what is that thing you have attached to your back?'

For a slightly more distant object:

(60)   nú   yà   skwì   xábá-f   kághúní   tà
       which thing COP   thing attach:PL-UP   2PL   PREP
       xúl   yá
       back   DEM
       'what is that thing you have attached to your back?'

For a remote object but still in sight, the same question has the form:

(61)   nú   à   skwì   xábá-f   kághúní   tà
       which thing COP   thing attach:PL-UP   2PL   PREP
       xúl   á
       back   DEM
       'what is that thing you have attached to your back?'

If the question is about an object in the domain *de dicto*, the question word *wá* for humans and *nə́* for non-humans is used. The copula chosen must be the middle-distance demonstrative *yà*, and the clause-final demonstrative is *ná*. Thus when people talk about their adventures, one could ask them:

(62)   nə́   yà   skwì   xábá-f   kághúní   tà
       which thing COP   thing attach:PL-UP   2PL   PREP
       xúl   ná
       back   DEM
       'what did you attach to your back?'

The copula may occur in equational clauses as well:

(63)   wá   yà   nà
       who   COP   Q
       'who is he (or she)?'

Across languages, specific interrogatives and focus constructions quite often have similarities. There have even been claims about the pragmatic or semantic identity of the two constructions (cf. Schuh 1982 for other Chadic languages). The data in Hdi point to categorial differentiation between focus constructions and specific interrogatives. The optional use of copulas in interrogative clauses, with both human and non-human participants and with both subjects and objects, argues against equating the interrogative with the focus construction.

4.10. Questions about the dative/benefactive

There are three means of coding questions about the dative. One has the third-person dative marker *ná* following the verb. This complex can be used with different configurations of objects and with interrogative marker *wá*:

(64)   *ɓlá-ná-p-ɓlà*   *tá*   *sárák-á*   *wá*
       break-DEM-OUT-break OBJ   stick-GEN   who
       'for whom did he break the club?'

If the verb has extensions, the referential marker and the object marker are reduced to one, represented here by the referential marker:

(65)   *dà-ná-tá*   *wá-ká*   *tá*   *ɗàfá*
       cook-DEM-REF   who-2SG   OBJ   food
       'for whom did you cook?'

(66)   *bà-ná-f-tá*   *wá*   *tá*   *xgà*
       give-DEM-UP-REF who   OBJ   house
       'for whom did he build the house?'

(67)   *vlá-ná-tá*   *wá-ká*   *tá*   *kóɓù*
       give-DEM-REF who-2SG   OBJ   money
       'to whom did you give the money?'

Another means for coding questions about the benefactive is through the preposition *ngá* followed by the form *wá* in clause-initial position. The verb does not have high tone before the dative argument. In pragmatically independent clauses, high tone on the verb indicates the dative function of the following pronoun. Note also that like verbs that do not raise their tone before the subject in specific interrogatives, the referential particle *tà* does not have high tone either:

(68)   *ngá*   *wá*   *dà-ná-tà-ká*   *tá*   *ɗàfá*
       FOR   who   cook-DEM-REF-2SG   OBJ   food
       'for whom did you cook?'

If the potential benefactive is plural, the associative plural marker precedes the question word *wá*. Since the associative plural is vocalic, the associative plural *ì* replaces the vowel of the benefactive marker *ngá*:

(69)   ngí-ì   wá   dà-tà-ká
        FOR-ASSC.PL   who   cook-REF-2SG
        'for whom (PL) did you cook?'

4.11. Questions about the genitive modifier

Questions about the modifier that in affirmative clauses is preceded by a genitive construction have the head followed by the genitive marker and then by the question word. The question word is *wú* if the potential modifier is non-human:

(70)   kùlgà   wú   kághá   kùlgà
        plate   Q   2SG   plate
        'you are a plate for what [kind of food]?' (*kùlgà* an old variety of plate carved of wood, of a higher quality than a calabash.)

(71)   kdíx-á   wú   kághá   kdíx?
        donkey-GEN   Q   2SG   donkey
        'you are a donkey of what?' (What is your purpose?)

(72)   sárák-á   wú   kághá   sárák?
        stick-GEN   Q   2SG   stick
        'you are a stick of what?

If the potential modifier is human, the question word is *wá*:

(73)   mìyá   wá   xàn
        women   Q   3PL
        'Whose wives are they?'

(74)   ìr-á-w   ná   nà
        eye-GEN-who   DEM   Q
        'Whose eye is this?'

(75)   sl-á-w   ná   nà
        leg-GEN-who   DEM   Q
        'Whose leg is this?'

The evidence that it is the potential feature of modifier rather than the head noun that determines the choice of the interrogative marker is pro-

vided by the fact that the question about a non-human modifier of the human head requires the marker *wú*:

(76)   *mìyá*   *wú*   *xən*
       women   Q   3PL
       'what is the role of these women?'

4.12. Questions about the locative

There are two types of questions about location, depending on whether the question involves the directional or the stative locative. Both types involve the interrogative particle *gá* 'where'. Questions about the stative locative have the form *gá* Subject:

(77)   *sí*   *ndí*   *gá-ká*   *ndá*   *rvídìk*
       PAST   toward   where-2SG   ASSC   night
       'where were you last night?'

(78)   *gá*   *kdíx-á-ɗá*   *nà*   *ká-'á*
       where   donkey-GEN-1SG   Q   COMP-3SG
       ' "where is my donkey?" he said'

(79)   *gá*   *lwá*   *tà*   *lwá*
       where   world   PREP   world
       'where is the world in the world!' (an exclamation of amazement)

Questions about the direction of movement have the preposition *ndí* 'toward' with the preposition *gà* and a verb of movement:

(80)   *ndí*   *gà*   *sá-ghà*   *mbítsá*
       toward   where   arrive-D:PVG   Mbitsa
       'where does Mbitsa come from?'

It is also possible to begin a question about location with the verb. The locative argument is marked by the locative prepositions *gá* or *dà* followed by the appropriate interrogative particle, *wá* or *nə*:

(81)   *sən*   *dà*   *wá*   *ká*
       hear   PREP   who   2SG
       'at whose place did you hear that?'

Questions about the object of a locative preposition have the prepositional phrase at the beginning:

(82) *tà   wá   dzà   ká*
      PREP   who   hit   2SG
      'on whom did you hit?'

4.13. Questions about the time of the event

Questions about time are marked by the clause-initial interrogative complex *yà-wú*. The marker *yà* is cognate with the demonstrative *yá* and identical with the copula *yà*. The form *wú* is the same marker that occurs in questions about *de re* non-human participants. Like other specific questions, questions about time can end in the marker *nà*:

(83) *yà-wú sá-ghà   tsí*
      when   arrive-D:PVG   3SG
      'when did he come?'

(84) *yà-wú nghà-n-tà-tsí   tí-'í*
      when   see-3-REF-3SG   OBJ-SG
      'when did he see me?'

4.14. Questions about manner

There are several means of asking questions about manner. One is through the marker *kí* 'how' in clause-initial position, with or without the interrogative marker *nà* in clause-final position:

(85) *kí   tà   dà-lú   tá   dàfá   (nà)*
      how   IMPF   cook-UH OBJ   mush   Q
      'how does one cook mush?'

The other means is through the sequence *kí nà wú*, in which the first element corresponds to "how"; the second element is the specific interrogative marker, which in other interrogatives occurs in clause-final position; and *wú* is the *de re* question word:

(86) *kí   nà wú   tà   dà-lú   tá   dàfá*
      how   Q Q   IMPF   cook-UH OBJ   food
      'how does one cook mush?'

If the subject is nominal, it is placed after the verb. The instances with the nominal subject provide the evidence that the final vowel a is indeed the marker of *realis* modality rather than an integral part of the verb, as it occurs after the distal cum source-oriented extension:

(87) kí   nà wú   lá-ghú-á   Mbitsa   dá   Nigeria
      how   Q Q   go-D:SO-REAL Mbitsa   PREP   Nigeria
      'how did Mbitsa go to Nigeria from here?'

(88) kí   nà wú   sá-b-á   Mbitsa   dá   Nigeria
      how   Q Q   arrive-OUT-REAL Mbitsa   PREP   Nigeria
      'how did Mbitsa come from Nigeria?'

The other means is through the clause-initial interrogative marker wá, followed by complementizer ká, and then followed by the subject:

(89) wá   ká   Mbitsa   lá-gh-ú-í   dá   Nigeria
      how   COMP Mbitsa   go-D:SO-REF   PREP   Nigeria
      'how did Mbitsa go to Nigeria from here?'

(90) wá   kí-ì   dzà'á   mág-áy   ká-'á
      what COMP-1SG FUT do-PO   COMP-3SG
      ' "what shall I do?" he said'[12]

(91) wá   ká-á   sí   tà   ɓàs-áy
      how   COMP-3SG PAST   IMPF   suffer-PO
      'how did he suffer?'

All pronominal subjects except the third-person á have low tone when they follow the complementizer. This property can in fact be generalized to all situations where pronominal subjects precede the verb:

(92) wá   ká-kà   sá-ghà
      how   COMP-2SG arrive-D:PVG
      'how did you come?'

(93) wá   ká-xàn   mágá-tà
      how   COMP-3PL work-REF
      'how did they work?'

The vowel of the complementizer changes under the influence of the following subject pronoun in predictable situations, viz. when followed by a vocalic suffix or a syllable with a liquid at its onset:

(94) *kà   wá   kí-ì   dzà'á   mág-áy   ndá   nàná   ù*
SEQ   how   COMP-1SG FUT   do-PO   ASSC   DEM   NEG
'and now I do not know what I am going to do'

The presence of the interrogative *wá* in questions about manner indicates that an analysis of *wá* as coding a human participant is too narrow. It is possible that *wá* is the most general interrogative marker, and that *nə́* represents a specific marker used only for non-human participants.

4.15. Questions about the reason

There are several means of coding questions about the reason why. One is through the clause-initial sequence consisting of *nə́* 'what' followed by the copula *yà*, realized as *ní-yà*. This form may be used independently in the sense of "what's the matter?". It may also be used at the beginning of a longer interrogative:

(95) *ní-yà   kwál-kúní   kwàl   sá-ghà   dáxàwú*
why-COP   refuse-2PL   refuse   arrive-D:PVG   yesterday
'why didn't you come yesterday?'

(96) *ní-yà   tà   xwáy   ká*
why-COP   IMPF   run   2SG
'why are you running?'

The second means of asking questions about the reason why is through the clause-initial marker *kàbgà* 'because' followed by the particle *wú*. The form *kàbgà* may be a complex structure consisting of preposition *kà*, followed by the noun *bgə́* 'pile, a determined quantity' (Fr. *tas*), followed by the genitive marker *á*. The reason for postulating it as a complex structure is the fact that the preposition *kà* may be replaced in this expression by the preposition *dà*, producing *dà bgà wú*. The form *kàbgà* also codes adverbs of reason in indicative clauses. The form *wú* is the same that is used in questions about non-human *de re* participants:

(97)   kàbgà   wú   sá-ghà-tsí   nà
        because   Q   arrive-D:PVG-3SG Q
        'why has he come?'

The third means of asking about the reason is through the clause-initial
sequence *ngá wú* 'for Q' realized as [ngú]. In the perfective aspect the
subject of the clause may follow the verb or it may follow the interrogative
marker in a focus-like construction. When the subject follows the verb, it
behaves like all other subjects in this position. For pronominal subjects
that means high tone:

(98)   ngú   zú-tà   ká
        why   eat-REF   SG
        'why did you eat?' (can be said while pointing at the object)

In the independent imperfective aspect, the nominal or pronominal
subject must occur after the question word if the verb is followed by an
object, including the potential object marker *-áy*:

(99)   ngú   mbítsá   tà   zá hlú'wí
        why   Mbitsa   IMPF   eat meat
        'why does Mbitsa eat meat?'

(100)   ngú   mbítsá   tà   z-áy
        why   Mbitsa   IMPF   eat-PO
        'why does Mbitsa eat it?'

When the pronominal subject occurs before the verb, it has low rather
than high tone:

(101)   ngú   kà   tà   z-áy
        why   2SG   IMPF   eat-PO
        'why do you eat it?'

(102)   ngú   kà   tà   zá hlú'wí
        why   2SG   IMPF   eat meat
        'why do you eat meat?'

If the verb in imperfective is not followed by an object, the subject
must occur after the verb:

(103) ngú   tà   zá ká
       why   IMPF eat 2SG
       'why do you eat?' (if you were told not to eat)

(104) ngú   tà   zá mbítsá
       why   IMPF eat Mbitsa
       'why does Mbitsa eat?'

The marker *ngú* may follow the verb:

(105) ká   ùvá   mántsá   xgà   ngú   ká   tá   krì
       COMP   cat   COMP   invite why   2SG OBJ dog
       kày
       INTERJ
       'Cat says, "Why did you invite Dog?"' '

The form *ngú* is most likely a fusion of two markers: the preposition *ngá* 'for' and the marker *wú*, which occurs in the interrogative complex asking for the reason, as described above. Support for the hypothesis about the composition of this marker is provided by the form of the interrogative when it occurs in clause-final position, where apparently the fusion did not take place and the form is realized as *ngáw*. Pronominal subjects following the clause-final *ngáw* have high rather than low tone:

(106) tà   zə́ ngáw-ká
       IMPF   eat why-2SG
       'why are you eating?'

(107) tà   zə́ ngáw
       IMPF   eat why
       'why is he eating?'

4.16. The coding of the perfective in questions about the reason

When a question about the reason why is marked by *kàbgà wú*, the perfective aspect is coded by a construction consisting of a verb *klá* 'take', followed by a nominal or pronominal subject, and then the sequential marker *kà*, followed by the main verb with the referential marker:

(108) kàbgà   wú   kə́l-ká   kà   xgà-n-tá   ùvá
       because   Q   take-2SG   SEQ   call-3-REF cat
       kày
       INTERJ
       'Why did you invite Cat?'

(109) kàbgà   wú   kə́l-tsí   kà   zú-tà
       because   Q   take-2SG   SEQ   eat:SO-REF
       'why did you eat?'

The form kə́l derives from the verb klá 'take' through the reduction of the final vowel and schwa insertion, as dictated by syllabification rules. The main verb of the clause is marked by a sequential clause.

The evidence for the perfective function of klá is provided by the fact that this verb does not occur in clauses in the imperfective aspect:

(110) kàbgà   wú   tà   zá-ká
       because   Q   IMPF   eat-2SG
       'why do you eat?'

(111) kàbgà   wú   kə́l-ká   kà   sá-ghà
       because   Q   take-2SG   SEQ   arrive-D:PVG
       'why did you come?'

The negative counterpart of a question about cause or reason is marked by the form kùl preceding the main verb:

(112) kàbgà   wú   kə́l   mbìtsa   kùl   sá-ghà
       because   Q   take   Mbitsa   NEG   arrive-D:PVG
       'why didn't Mbitsa come?'

(113) kàbgà   wú   kə́l-ká   kùl   sá-ghà
       because   Q   take-2SG   NEG   arrive-D:PVG
       'why didn't you come?'

(114) kàbgà   wú   kə́l-tsí   kùl   sá-ghà
       because   why   take-3SG   NEG   arrive-D:PVG
       'why didn't he come?'

4.17. Questions about the kind

Questions about type or kind consist of the noun phrase that is the target of the question, followed by the possessive marker á, followed by the morpheme *wú*:

(115) ùv-á   wú
       cat-GEN   Q
       'what kind of cat?'

       vdz-á   wú
       monkey-GEN Q
       'what kind of monkey?' (cf. *vdzí* 'monkey')

4.18. Questions about instrumental and associative arguments

Questions about instrumental and associative participants are formed through the addition of the marker *wá* or *nə* to the associative preposition *ndá*. Unlike questions about the subject and the object, the interrogative phrase about the associative follows the verb. The aspectual coding in the verb is like that in other specific questions:

(116) sá-ghà   ndá-wá   ká
       arrive-D:PVG ASSC-WHO   2SG
       'with whom did you come?'

(117) sá   ndá-wá   ká
       arrive ASSC-WHO   2SG
       'with whom did you come?'

(118) sá-ghà   ndá-w   ngálày nà
       arrive-D:PVG ASSC-who   Ngale   Q
       'by what means did Ngalay come ?'

4.19. Questions about purpose

Questions about purpose have the form of a complex sentence where the matrix clause is followed by the purpose-marking preposition *dá*, then the verb *mágá* 'do', followed by the interrogative marker *wú*.

(119) sá-ghà   dá   mágá wú
       arrive-D:PVG PURP do   Q
       'why did he come?' (lit. 'he came to do what thing?')

4.20. Questions about the predicate

Questions about the predicate are formed with the verb *mágá* at the begin-
ning of the clause, followed by the preposition *kà* 'like', followed by the
interrogative *wú*:

(120) mágá kà-wú   tá   xìyá
       do   FOR-Q   OBJ   guinea corn
       'what did he do with the guinea corn?'

5. Conclusions

There are several means of coding interrogative modality. One is through
the raising of the last tone in clause-final position. Another is through in-
terrogative particles. The third is through the use of clause-initial specific
question words. Raised tone can, and most often is, used along with a
clause-final interrogative particle. Questions about the truth of the
proposition (yes/no questions) are formed through the interrogative parti-
cle *rà*. Questions asking for the confirmation of an assumption are formed
through the clause-final particle *rí*. Specific questions about participants in
an event are formed with clause-initial question words and with the op-
tional clause-final particle *nà*. Hdi makes a distinction between human and
non-human participants and also codes questions about place, time, man-
ner, reason, possessor, and instrument/associative. When a question is
about a non-human argument, the language makes a distinction between
the domain *de dicto* and the domain *de re*. The marker of the domain *de re*
wú is also used in questions about adjuncts.

Chapter 17

Negation

1. Introduction

The markers *a* and *wà* are glossed as "NEG". The forms *wà* and *wù* are free variants, although some speakers show preference for *wà* and others for *wù*. The marker *wà* is most often reduced in normal speech to [w].

2. Negation of pragmatically independent clauses

Pragmatically independent clauses are coded by means of the negative frame *a . . .wà*, with the marker *a* following the predicate and preceding the subject, and the marker *wà* following the object and adjuncts, if any.

2.1. Negation of identificational and equational clauses

In identificational clauses, the particle *á* occurs immediately after the predicate, and if there is nothing else in the clause, it is followed by the negative particle *wà* (examples excerpted from natural discourse):

(1)   *xámáyádzì*   *á*   *wà*
       Hamayadzi   NEG   NEG
       'it is not Hamayadzi'

If the negative marker follows a morpheme ending in a vowel, the vowel of the preceding morpheme is replaced in accordance with the rules of vowel replacement:

(2)   *kɗìx-á-ní*   *á* *wà*   → [kɗìx-á-ná á wà]
       donkey-GEN-3SG NEG   NEG
       'it is not his donkey'

(3) dèrí   á   wà   →   [dèrá á wà]
     hat   NEG   NEG
     'it is not a hat' (elicited)

(4) dzvù   á   wà   →   [dzvà á wà]
     hand   NEG   NEG
     'it is not a hand' (elicited)

In equational clauses with a subject and a predicate, the first component of negation á follows the predicate and precedes the subject, and the second component wà follows the subject and its modifiers, if any:

(5) ndghà   'á   zwàn-à   xdí   ndá
     numerous   NEG   child:PL-GEN Hdi   ASSC
     dzángá   dzángá   táŋ   wà
     education   education 3PL   NEG
     'the educated Hdi are not numerous' (written sources)

2.2. Negation of verbal clauses

Negation of pragmatically independent verbal clauses is similar to the negation of equational clauses, in that the negative particle a comes after the verb and before the subject. The negative marker wà must occur at the end of the clause. The verb cannot be reduplicated in the negative clause. The verb has the simple form followed by the thematic vowels and extensions, if any. The temporal and aspectual interpretation of such clauses is determined by the discourse environment, and it could be past, present or future, perfective or imperfective. Here are a few examples that describe permanent states:

(6) dvà   'á   xdí-xà   tá   l'école   wù,
     like   NEG   Hdi-PL   OBJ   school (Fr.)   NEG
     ká-'á
     COMP-3SG
     ' "Hdi do not like school," he said'

(7) snà   á   índà   xdí   tá   màxtsím   wà
     know   NEG   all   Hdi   OBJ   next day   NEG
     'Not all Hdi know the future' (written sources)

And here is an example that describes usual activities:

(8)　zá　á　zwáŋ　tá　tsá　wà　ká-'á
　　　eat NEG　child　OBJ　DEF　NEG　COMP-3SG
　　　' "Children do not eat it," he said'

Here are examples where frame á ... wà is used in clauses describing past events, whose affirmative equivalent would have been in the perfective aspect:

(9)　lává-ná　　á　　yàghí　lává-ná　　á
　　　be able-DEM　NEG　squirrel　be able-DEM　NEG
　　　tá　gì　　　ks-ú-tá　　gwì'yán　wà
　　　COM　immediately　touch-SO-REF　elephant　NEG
　　　'Squirrel did not manage to devour Elephant immediately.'

(10)　ɓxà-dá-gh-íyù　　tví　tsá　wà
　　　arrive-ALL-D:PVG-1SG　road　DEF　NEG
　　　'I did not arrive there.'

(11)　lá　á　ká　ndá　tà　tsá　wù
　　　go NEG　2SG　ASSC　PREP　DEF　NEG
　　　'You did not go there?'

The coding of the future tense in negative clauses differs considerably from the coding of negation of other types of clauses and also from the coding of future in affirmative clauses. The verb in the negative future has referential marker tà (with low tone) followed by the frame a ... wà:

(12)　mántsá yá gúlí　xár　màxtsím　snà-n-tà　　'á
　　　like that　also　till　future　know-3-REF　NEG
　　　xəŋ　tá　skwì　tá　ràntá-xəŋ　wà　ká-'á
　　　3PL　OBJ　thing　COM　right-3PL　NEG　COMP
　　　'In this way Hdi will never know their rights' (written sources)

(13)　xgà-n-tì　　í　　　tá　ùvá　wà
　　　call-3-REF:SUBJ　NEG-1SG　OBJ　cat　NEG
　　　ká　yàghí
　　　COMP　squirrel
　　　' "I am not going to invite Cat," said Squirrel.'

If there is a clause-initial noun other than the subject, the third-person singular subject is marked by the suffix tsí following the negative marker:

(14) fìtík   dr-ú   á   tsí   wù
      time   burn-SO   NEG   3SG   NEG
      'since it did not burn'

The negative interrogative clause does not have the marker á:

(15) tà   tsk-áy-xən   wà
      IMPF   gather-PO-3PL NEG
      'They gather, don't they?'

2.3. Negation and referentiality

In the process of elicitation, and only in elicitation, we have noticed a phe-
nomenon worth reporting, despite the fact that it has not been attested in
natural discourse data. There appears to exist an interaction between ex-
tensions to the verb and the form of the negative marker a in the coding of
referentiality. The interaction is as follows: If the verb does not have ex-
tensions, the negative marker with low tone, à, codes the referentiality of
the event. The high-tone variant á codes non-referentiality. In order to dis-
tinguish between the two negative markers, we gloss the low-tone à as
"NEG:REF" for negative referential. The non-referential negative marker á
is glossed simply as "NEG".

If the verb has extensions, which determine the event with respect to
spatial orientation or in some other way, the negative marker á is used.
Note that the verb does not have the referential marker tá:

(16) ndúk   ndá   tsá   klə̀-gá-ná-ghà   á   xən   wà
      all   ASSC   DEF   take-INN-DEM-D:PVG   NEG   3PL   NEG
      'despite all that, they didn't bring [it] to him'

(17) dr-ín   á   xáyághù   (tá   xàsú'ùú)   wà
      burn-AWAY   NEG   Hayahu   OBJ   wood   NEG
      'Xayahu did not burn (the wood) away'

(18) xvá-f   á   xdí   tá   vàrà   kɗá   wà
      plant-UP   NEG   Hdi   OBJ   beans last year NEG
      'Hdi did not plant beans last year'

If the verb does not have the extensions, referentiality is coded by the
low-tone marker à (all data elicited):

(19) *xvá   à   xdí   tá   vàrà   kɗá   wà*
      plant NEG:REF Hdi   OBJ   beans last year   NEG
      'Xdi did not plant beans last year'

The non-referential events are valid for any period of time:

(20) *gwàɗá   à   mbítsá   wà*
      speak NEG:REF Mbitsa   NEG
      'Mbitsa did not say anything' (during a specific conversation)
Cf.:
(21) *gwàɗá   á   mbítsá   wà*
      speak NEG   Mbitsa   NEG
      'Mbitsa does not speak'

(22) *zú   à   tá   hlú'wí   wà*
      eat:SO NEG:REF OBJ   meat   NEG
      'he did not eat the meat'

(23) *zá   á   tá   hlú'wí   wà*
      eat   NEG   OBJ   meat   NEG
      'he does not eat meat'

Consider the use of the two markers with the applicative marker *vá* and the source-oriented marker *ú*, both of which code the affectedness of the subject. The applicative does not imply completion, or totality, of the event. The source-oriented marker codes completion of the event. With the applicative *vá*, the negative marker has the form *á*. With the source-oriented marker *ú*, the negative marker is only *à*:

(24) *drà-vá   á/*à   xàsú'ùú   ndá   lɓá   wà*
      burn-APPL NEG wood   ASSC   wet   NEG
      'wet wood does not burn'

(25) *dr-ú   à/*á   xàsú'ùú   wà*
      burn-SO NEG:REF wood   NEG
      'the wood did not burn completely'

Compare also the following:

(26) *sù   à   tá   ghzú   wà*
      drink:SO NEG:REF OBJ   beer   NEG
      'he did not drink the beer'

(27)   *sà   á   tá   ghzú   wà*
    drink   NEG   OBJ   beer   NEG
    'he does not drink beer'

All events that involve the speaker are automatically referential, and the negative form used is always *á*, because the referentiality is coded by the nature of the subject (the first-person singular marker *i* replaces the vowel of the negative and assumes its tone):

(28)   *sá-bì   dá   lmá   í   wà*
    arrive-OUT:REF   PURP   war:NEG   1SG   NEG
    'I did not come in order to wage war'

(29)   *dr-ín   í   tá   nìvú   wà*
    burn-AWAY   NEG:1SG   OBJ   wood   NEG
    'I did not burn wood'

(30)   *dr-ín   á-í   (tá   nìvú)   wà   → [drìná]*
    burn-AWAY   NEG-1SG   OBJ   wood   NEG
    'I did not burn the wood'

When the verb has an extension, the scope of the negation is the extension with the verb. Thus the tentative extension *ŋ*, which often means "try to do X", in a negative clause means "did not try to do X":

(31)   *tsà-ŋá   á   mbítsá   wà*
    cut-TENT   NEG   Mbitsa   NEG
    'Mbitsa did not try to cut'

3. The dependent negative clause: The auxiliary *xàɗú*

The pragmatically dependent negative clauses are negative relative clauses, negative conditional protases, and negative conditional and temporal apodoses. The negative dependent clause is coded by a frame beginning with the clause-initial form *xàɗú* 'lack, not to exist'. The form *xàɗú* is the opposite of *màmú* 'exist', which also occurs in clause-initial position. As is the case with *màmú*, subjects, whether nominal or pronominal, must follow *xàɗú*. Pronominal subjects are taken from the verbal set (Table 10). Since the clause-initial position is the one occupied by the predicate, we take *xàɗú* to be an auxiliary. The auxiliary *xàɗú* has variants *xàɗ* and *xwàɗú*. In the mperfective aspect the auxiliary is followed by the prepo-

sition *tà*, a nominal form of the verb, and the clause-final negative particle *wà*. Pronominal subjects (natural discourse data):

(32)   *xàɗ*   *áŋni*   *tà*   *mtà-kú*   *ndá*   *mtà*   *wà*
      lack   1PL:EXCL   IMPF   die-ABS   ASSC   die   NEG
      'we do not die [when we are old]'

(33)   *xáɗú-lú*   *tà*   *mág-áy*   *mándá*   *tsá*   *tà*   *zlày*
      NEG-UH   IMPF   do-PO   like   DEF   PREP   before
      bàɗú   *lúmá*   *gòzú*   *lúmá*   *gòz*   *yá-w*
      day   market   Gozu   market   Gozu   DEM-NEG
      'Is it not done as before on Wednesdays?' (Wednesday = market day at Gosi in Nigeria)

The negative dependent clause may also be a concluding clause, after another statement has been made:

(34)   *àmá*   *xàɗú-lú*   *tà*   *táw-áy*
      but   lack-UH   IMPF   cry-PO
      'but one does not complain about it'

(35)   *xàɗ*   *xəŋ*   *tà*   *ksá-f-tà*   *dágálá*   *wà*
      lack   3PL   IMPF   catch-UP-REF   many   NEG
      'they do not catch many'

Negative comment on a focused element:

(36)   *matakam*   *gúlì*   *ná,*   *xàɗú lú*   *tà*   *ndzúv-tà*
      Matakam   also   DEM   lack-UH   IMPF   tie-REF
      ndá   *xəŋ*   *wà*
      ASSC   3PL   NEG
      'Also the Matakam [Mafa], one didn't get along with them either'

Negative clause in the temporal apodosis:
(37)   *sá-fà*   *lá*   *xamáyádzì*   *xàɗ*   *xəŋ*
      arrive-UP   COLL   Hamayadzi   lack   3PL
      tà   *ksá-f-tà*   *dər*   *tùrtúk*   *wà*
      IMPF   catch-UP-REF   even   one   NEG
      'When Hamayadzi's people arrived, they didn't even catch a single person'

The negative relative clause involves the negative relative clause marker *kùl* and the auxiliary *xàɗú*:

(38) | *bá* | *ìmí* | *yá* | *yà* | *kùl* | *xàɗú* | *sá-ghà* |
      |------|-------|------|------|-------|--------|----------|
      | except | water | DEM | COP | which:NEG | lack | arrive-D:PVG |

  '. . . except for rains that do not come.'

(39) | *xàɗík* | *kùl* | *xàɗú* | *kɗà-và-k-tà-ní* |
      |---------|-------|--------|------------------|
      | world | without | lack | finish-APPL-INN-REF-3SG |

  'world that does not end' (written source)

The evidence that the form *xàɗú* is a verb 'lack, not to have' is provided by the clauses where it is the only predicate:

(40) | *xàɗú* | *skwì* | *mùtsá-f-tsì* | *wà* |
      |--------|--------|---------------|-----|
      | lack | thing | get-UP-3SG | NEG |

  'there is nothing that he got' (i.e., 'he did not get anything')

(41) | *xáɗ* | *ìm* | *gà* | *xdí* | *wù* | *kó* |
      |-------|------|------|-------|------|------|
      | NEG | water | in | Hdi | NEG | Q (Hau.) |

  'So, there are no rains in Hdi?'

The structure corresponding to "there is no such thing . . ." is also used for the coding of dependent future:

(42) | *xàɗ* | *skwì* | *dzà'á* | *ksà-n-tà* | *wà* |
      |-------|--------|---------|------------|-----|
      | lack | thing | FUT | touch-3-REF | NEG |

  '[if certain offerings have been made] nothing will happen to him'

4. Negation of possessive clauses

Negation of possessive clauses, i.e. verbless clauses coding possession, is also marked by *xàɗú . . . wà*, with the possessor marked by the locative preposition *dà*:

(43) | *xàɗ* | *kóɓ* | *dà* | *tsí* | *wà* |
      |-------|-------|------|-------|------|
      | lack | money | PREP | 3SG | NEG |

  'she does not have any money'

When the object of possession is not coded overtly, the sentence is construed as meaning that the possessor has no member of a set mentioned in previous discourse:

(44) *xàɗ*   *dà*   *tsí*   *wà*
      lack   PREP   3SG   NEG
      'she does not have any'

(45) *xàɗ*   *kóɓù*   *dì-í*   *wà*
      lack   money   PREP-1SG   NEG
      'I do not have money'

5. Negation through the auxiliary *kwálá* 'lack, fail'

An alternative negation form consists of the use of the verb *kwálá* 'lack, fail', combined with the form *kùl* 'without', which is also used as a negative relative clause marker. One of the structures in which the auxiliary is used consists of the full verb *kwálá* 'fail', followed by the subject, then the form *kùl*, followed by the main verb with extensions, if any, and then followed by the object. There is no negative marker *á* or *wá*:

(46) *mántsá*   *dzà'á*   *kwálá-xən*   *kùl*   *ghál-gàl*   *tá*
      like that   FUT   lack-3PL   without   steal-AGAIN   OBJ
      kághá
      2SG
      'like that, they will not rob you again'

The short form *kùl*, which precedes the verb, is used as a negative marker:

(47) *nə*   *kùl*   *zə́-ká*
      why   without   eat-2SG
      'why don't you eat?'

(48) *nə*   *kùl*   *zə́-tsí*
      why   without   eat-3SG
      'why doesn't he eat?'

(49) *nə*   *kùl*   *sə̀-ká*
      why   without   drink-2SG
      'why don't you drink?'

6. Conclusions

The form of the negative clause codes the pragmatic status of the clause. The negation of pragmatically independent clauses involves the negative frames *á* . . . *wà* for non-referential events and *à* . . . *wà* for referential events. The negation of pragmatically dependent clauses is marked by the auxiliary verb *xàɗú* 'lack'. The pragmatically independent clauses do not display aspectual distinctions, while the pragmatically dependent clauses do.

Chapter 18

Topicalization

1. Introduction

Topicalization, as understood in this chapter, means changing the topic of a sentence or a fragment of discourse. Topicalization has different forms for different arguments and adjuncts. If the topicalization involves movement into the clause-initial position, there is a perceptible pause between the topicalized argument and the rest of the clause. Clauses in which the pause is artificially eliminated are considered ungrammatical. In addition to the pause, the demonstrative *ná*, serving as the background marker, may precede the comment-on-the-topic clause. The fundamental syntactic distinction between topicalization and focus is that in topicalization constructions the clause that follows the topicalized element is pragmatically independent, i.e., the perfective is coded through reduplication and the imperfective retains its thematic vowel. In focus constructions, the clause that follows the fronted element is pragmatically dependent, i.e., the perfective cannot be coded by reduplication and the imperfective is marked just by the verbal root. In what follows we discuss the topicalization of various arguments and the role of particles that may follow the topicalized argument.

There are different means for topicalizing arguments of verbal clauses versus arguments of equational clauses, and different means for topicalizing nominal arguments versus pronominal arguments. The first part of the discussion is dedicated to the description of the formal means available, and the second part is a description of the functions of topicalization. The description of the formal means is based on elicited expressions in order to minimize extraneous material that may obscure the grammatical patterns involved. The description of the functions is based on natural discourse data only.

2. Topicalization of the pronominal subject

The pronominal subject in the imperfective clause is topicalized through the independent pronoun occurring after the verb. The verb occurs in nominalized form, as always in the independent imperfective aspect:

(1)   *tà   xwáyá   íí*
      IMPF   run   1SG
      'I run'

(2)   *tà   xàní   kàghá*
      IMPF   sleep   2SG
      'you sleep'

(3)   *tà   yáwì   tsàtsí*
      IMPF   chatter 3SG
      'he chatters'

If the verb is transitive, the potential object marker -*áy* must occur:

(4)   *tà   zl-áy   íí*
      IMPF   chase-PO   1SG
      'I chase it'

The difference between topicalized and non-topicalized pronominal subjects is in the form of the subject pronouns. The non-topicalized subject pronouns are affixes; the topicalized subject pronouns are independent:

(5)   *tà   zl-áy-í*
      'I chase it'

Here is the illustration of other topicalized pronouns in the imperfective aspect:

(6)   *tà   zl-áy kághá*
      'you chase'

(7)   *tà   zl-áy tsátsí*
      'he chases'

(8)   *tà   zl-áy íí'íí*
      'the two of us chase'

(9)   *tà   zl-áy ámù*
      'we (INCL) chase'

(10) *tà   zl-áy áŋní*
      'we (EXCL) chase'

(11) *tà zl-áy kághúní*
     'you chase'

(12) *tà zl-áy xàn*
     'they chase'

3. Topicalization of the nominal subject

The topicalized nominal subject may be followed by the comment clause marker *ná*, identical with the proximate demonstrative, and glossed as "DEM". The topicalized nominal subject is put at the beginning of the clause. Given the function of topicalization, such a subject, unless it is a proper name, must be marked by one of the demonstratives *ná, yá*, or *á*. The choice of demonstrative depends on: (1) the distance between the speaker and the subject and (2) the discourse status of the subject. Recall that the rule about the tones on deictics is as follows: A deictic following the noun always has high tone. A deictic preceding the noun always has high tone. If there are two deictics preceding the noun, the first deictic has low tone. Thus the following schemes are possible: Demonstrative-High tone Noun Demonstrative-High and Demonstrative-Low Demonstrative-High Noun Demonstrative-High:

(13) *nà   ná   gwì'yán   ná   (ná)   dágálá*
     DEM   DEM   elephant   DEM   DEM   large
     'this elephant here is large'

(14) *yà   yá   gwì'yán   yá   dágálá*
     DEM   DEM   elephant   DEM   large
     'that elephant is large'

(15) *à   á   gwì'yán   á   dágálá*
     DEM   DEM   elephant   DEM   large
     'that elephant over there is large'

Putting an ordinary noun before the predicate without a demonstrative results in an ungrammatical expression:

(16) **gwìyáŋ   dágálá*
     elephant   large
     for 'an elephant is large' (even for generic statements)

Topicalized proper names are not enclosed in the demonstrative frame. The demonstrative that follows the proper name is the comment clause marker. A transitive verb in the imperfective aspect must have the potential object marker -áy:

(17) pghìntà   ná   tà   s-ày   tá   ìmí
      Phinta   DEM   IMPF   drink-PO   OBJ   water
      'as for Phinta, she drinks water'

In the perfective negative, the verb has only goal-orientation vowel a:

(18) pghìntà   ná   sà   á   tá   ìmí   wà
      Phinta   DEM   drink   NEG   OBJ   water   NEG
      'as for Phinta, she did not drink water'

In the prohibitive mood, the background marker ná is not used. The fronted nominal subject is followed by a pause. The verb must have the third-person singular subject tsi or the third-person plural subject xə̀n:

(19) tádá   [pause]   mà   zə̀-tsí   tá   mbízà
      Tada   PROH   eat-3SG   OBJ   bean dish
      'Tada, he should not eat the bean dish'
Cf.:
(20) mà   zə̀   tádá   tá   mbízà
      PROH   eat   Tada   OBJ   bean dish
      'Tada should not eat the bean dish'

The clause that follows the topicalized subject is coded as a pragmatically independent clause. The evidence for this conclusion is provided by the fact that the verb in the perfective aspect is reduplicated:

(21) pghìntà   ná   sà-á-sà   tá   ìmí
      Phinta   DEM   drink-PART-drink   OBJ   water
      'as for Phinta, she drank some water' (while other people drank other things)

Negation with a topicalized subject is marked as in indicative clauses, viz. by the particle a following the verb and by the clause-final particle wà. Since the subject is in clause-initial position, the two negative markers are in sequence if there are no other elements in the clause:

(22) *pghìntà*   *ná*   *sá-ghà*   *á*   *wà*
      Phinta   DEM   arrive-D:PVG   NEG   NEG
      'as for Phinta, she did not come'

(23) *pghìntà*   *ná*   *sà*   *á*   *tá*   *ìmí*   *wà*
      Phinta   DEM   drink   NEG   OBJ   water   NEG
      'as for Phinta, she does not drink water'

In the stative aspect, topicalization involves placing the subject in clause-initial position:

(24) *hìà*   *ndá*   *xná*
      cow   STAT   cut
      'the cow, it is slaughtered'

4. Topicalization of the subject in equational clauses

In equational clauses, when the subject occurs in clause-initial position for topicalization, the predicate is followed by the copula *yà*. The topicalized element is followed by the comment clause marker *ná*:

(25) *màl-á-dá*   *ná*   *dghá*   *yà*
      older sibling-GEN-1SG   DEM   blacksmith   COP
      'my older brother is a blacksmith'

(26) *yà*   *yá*   *dghá*   *yá*   *ná*
      DEM   DEM   blacksmith   DEM   DEM
      màl-á-dá   *yà*
      older sibling-GEN-1SG   COP
      'that blacksmith is my older brother'

The topicalization marker *ná* may be omitted:

(27) *pghìntà*   *màl-á-dá*   *yà*
      Phinta   older sibling-GEN-1SG   COP
      'Phinta is my older sister'

If the topicalized argument of an equational clause is pronominal, the pronoun is drawn from the independent set, and like a nominal subject, it may be followed by the demonstrative *ná*. Instead of the clause-final copula *yà*, different pronouns serve as copulas:

(28)   *kághá   ná   kítìkw   ká*
        2SG   DEM   small 2SG
        'as for you, you are small'

Topicalization of the subject of possessive clauses has the form: Noun Phrase *ná ngá* Noun Phrase Copula. The copula is an obligatory component of the possessive clause. Any of the three deictic markers and the anaphor *tsá* can serve as the copula. The choice of copula is dictated by the deictic marker determining the possessum. But unlike the deictic marker, the copula always has low tone. The definite marker *tsá* serving as copula is unique among copulas in that it has high tone:

(29)   *tsá   hlà   yá   ná   ngá-ɗá   tsá*
        DEF cow DEM DEM FOR-1SG COP
        'the cow is mine'

The other copulas always have low tone:

(30)   *tsá   hlà   yà   ná   ngá-ɗá   yà*
        DEF cow DEM DEM FOR-1SG DEM
        'the cow is mine'

(31)   *nà   (ná)   hlà   ná   ná   ngá-ɗá   nà*
        DEM DEM cow DEM DEM FOR-1SG COP
        'this cow here is mine'

(32)   *yà   (yá)   hlà   yá   ná   ngá-ɗá   yà*
        DEM DEM cow DEM DEM FOR-1SG COP
        'this cow here is mine'

(33)   *à   (á)   hlà   á   ná   ngá-ɗá   à*
        DEM DEM cow DEM DEM FOR-1SG COP
        'that cow over there is mine'

5. Topicalization of the object

The topicalized object is also fronted, and like all fronted objects and unlike the object in postverbal position, it is not preceded by the object marker *tá*. The topicalized object may also be followed by the background marker *ná*.

In the imperfective aspect, the verb following the topicalized object must have the potential object marker *-áy*.

(34)   *hlú'w-á*   *hlà*   *(ná)*   *tà*   *ďv-áy-í*
       meat-GEN   cow   DEM   IMPF   like-PO-1SG
       'beef, I like'

In the perfective aspect, the verb does not have an object marker, which is the usual situation for perfective in pragmatically independent clauses:

(35)   *mbízà*   *z-ú-zà*   *pghìntà*
       bean dish   eat-SO-eat   Phinta
       'the bean dish, Phinta ate it'

(36)   *hlú'w-á*   *krì ná ďvà*   *á*   *wà*
       meat-GEN   dog DEM like   NEG NEG
       'dog meat, he does not like it'

The demonstrative/copula *ná* is optional, provided there is a pause between the topicalized noun phrase and the following sentence:

(37)   *hlú'w-á*   *krì*   *(ná)*   *ďvì*   *í*   *wà*
       meat-GEN   dog   DEM   like   NEG-1SG   NEG
       'dog meat, I do not like'

If the demonstrative is deleted and the pause is suppressed, the sentence is ungrammatical:

(38)   **hlú'w-á*   *krì*   *ďvá-í*   *wà*
       meat-GEN   dog   like-1SG   NEG
       for 'dog meat I do not like'

6. Topicalization of the dative

Topicalization of the dative involves the fronting of the dative argument without any preposition preceding it. The verb has a dative pronoun, which codes the person and number of the fronted argument:

(39)   *pghìntà*   *ná*   *dá-nà-d-í*   *tá*   *skwì*
       Phinta   DEM   cook-DEM-cook-1SG   OBJ   food
       'as for Phinta, I cooked food for her'

Similarly to the direct object, when the dative argument occurs in clause-initial position, it is not preceded by the object-marking preposition *tá*:

(40)   *pghìntà   vlá-n-vl-í   tá   gù*
        Phinta   give-3-give-1SG   OBJ   goat
        'as for Phinta, I gave her a goat'

If the dative argument is a conjoined noun phrase, the clause following the topicalized phrase has to have a resumptive plural pronoun marked by the preposition *tá*:

(41)   *ì   pghìntà   ndá   rákú   vlá-n-vl-í   tá*
        ASSC.PL   Phinta   ASSC   Raku   give-3-give-1SG   OBJ
        gù   tá   xòn
        goat   OBJ   3PL
        'as for Phinta and Raku, I gave them a goat'

If the dative argument is pronominal, the independent form of the pronoun is placed in clause-initial position. The verb has a pronominal suffix coding the same person and number:

(42)   *kághá   vlá-ghá-vl-í   tá   gù*
        2SG   give-2SG-give-1SG   OBJ   goat
        'as far as you are concerned, I gave you a goat'

(43)   *kághúní   vlá-ghúná-vl-í   tá   gù*
        2PL   give-2PL-give-1SG   OBJ   goat
        'as far as you are concerned, I gave you a goat'

7. Topicalization of the adjunct

Some adverbs of time always occur in clause-initial position. The topicalization of the adverb of time is marked by the comment clause marker *ná*:

(44)   *índà   dimanche   ná   màmú   marriage   ndánà*
        every   Sunday (Fr.) COMP   exist   marriage   now
        'Every Sunday there is a marriage now'

8. The functions of topicalization

Topicalization establishes a new topic of a sentence or a paragraph. If the topic has not been mentioned before in discourse, it is introduced in clause-initial position without any demonstratives or deictics:

(45)   *xìyá*   *xìyá*   *skwì*   *txàf-í*   *tà*   *ná*
       corn   corn   thing   expel-1SG   PREP   DEM
       ďèlèwèr   *ná*   *ná*   *skwì*   *3*   *nghá-nà-ghá-tsí*
       notebook   DEM   DEM   thing   three   look-DEM-D:GO-3SG
       'What I have written about in this notebook regards three things:'
       (written sources)

The demonstrative *ná* marks the material that is a comment on the topicalized element:

(46)   *kàbgá*   *ndùsá*   *ná*   *rvérì*   *ndá*   *lùwá*   *gítà6*
       because   be close   DEM   lion   ASSC   village   today
       'because there is a lion close to the village today'

A topicalized element previously mentioned in discourse is marked by the frame *tsá . . .yá* followed by the background marker *ná*:

(47)   *tsá*   *Gulu*   *yá*   *ná*   *yà-yà*
       DEF   Gula   DEM   DEM   give birth-give birth
       tá   *zwànì*   *ndá*   *ndghà*
       OBJ   child:PL   ASSC   many
       'that Gulu begot many children'

The definite marker *tsá* may follow the topicalized subject if the subject is also in focus:

(48) *pghù   tsá   yá   dzà'á   màrà-n-tá*
libation   DEF   DEM   FUT   show-3-REF
snà-n-tà-ní   tá   dàdá-xà-ní   ndá   mtá   dàgà
know-3-REF-3SG   OBJ   father-PL-3SG   STAT   dead   PREP
dá-ní   dá-ní   mà   dá-ní   dá-ní   mà
father-3SG father-3SG PREP   father-3SG father-3SG PREP
dá-ní   xá   gùlú
father-3SG until   Gulu
'It is the libation that will make him know his dead parents, back to
Gulu.' (Gulu is a forefather whom the *xùtsá, kɗáy, lálúwá*, and
dəblə́m clans claim as their ancestor. There are several dozen
clans in Hdi.)

If the topicalized element is present in the environment of speech, it is
enclosed in an appropriate demonstrative frame (Situation: after the
children of God gave the protagonist a donkey, they said):

(49) *nà-ná   kdìx   ná   ná,   kdìx-á   xìyá   yà*
DEM-DEM   donkey   DEM   DEM   donkey-GEN   corn   COP
'This donkey here it is a donkey of corn'

The adjunct also may be topicalized when it has been previously men-
tioned in the clause. Thus in a story:

(50) *tsá myí-xà   yá   ná   tà   ɗv-áy   tá   yà*
DEF wives-PL   DEM   COMP   IMPF   like-PO   OBJ   DEM
tùrtúk ɗvà   á   tá   yà   tùrtúk-ù
one like   NEG   OBJ   DEM   one-NEG
'Among these wives there, he likes one and does not like the
other.'

A clause itself may be topicalized, i.e. may be commented on by
the material following it. The comment is marked by the demonstrative
ná:

(51) *sáàlá-xà   ká-xən   tà   tská   kóbù   ná*
other-PL   COMP-3PL   IMPF   search   money   DEM
*hlíy-á-tán/*xə̀   dá   ghúá   kzún*
go-GEN   3PL   PURP   cut   grass
'Others, they find money like that: by going to cut grass'

In a way, all topicalized material, whether lexical or clausal, represents an instantiation of backgrounding whereby the topic is considered background for the comment. We return to the notion of backgrounding when discussing the issues of complementation.

9. Conclusions

Topicalization is coded through the placement of the topicalized noun phrase in clause-initial position. Either a pause or the demonstrative *ná* must follow the topicalized element. The clause that follows the topicalized element is pragmatically independent. That is the main element that distinguishes between topicalization and focus in Hdi.

Chapter 19

Focus and relative clauses

1. Introduction

The term *focus* in the present work designates the highlighting of one element of a proposition as either important or new, including an element that corrects an erroneous assumption of the hearer.

We use the term *relative clause* for a structure in which a noun or a noun phrase (the head) is modified by a clause. The reason the two functions are described in the same chapter is that the coding means for the two functions are identical. A clause with a focused element may serve as an argument of another clause, in which case the comment on the focused element is the relative clause. In what follows we briefly describe the characteristics of the constructions coding the two functions. We then we describe how arguments and adjuncts are put into focus and relativized.

Focus may be coded by various means, depending on what element of the clause is in focus and whether the clause has a nominal or a verbal predicate. There are two main means of coding focus and relativization: (1) placing the focused or relativized element before the predicate, i.e., in clause-initial position if there are no adverbs, and (2) for verbal clauses, use of a dependent aspect. Unlike in topicalization constructions, the fronted element is not followed by the demonstrative *ná*. Thus, several independent means distinguish between focused/relativized and topicalized elements, although both the topic and the focus occur in clause-initial position. Aspect coding in focus and relative constructions is intertwined with the coding of the grammatical role of the focused noun phrase. Hence, in the description that follows, the categories of aspect and grammatical role are discussed at the same time.

The order of components is always Head Relative clause. The head may be preceded by a definite or a demonstrative marker. When it is preceded by such a marker, the relative clause must also be followed by a demonstrative marker. The potential structure of the relative clause is therefore as follows: (Definite/Demonstrative) Head Relative clause (Demonstrative). The choice of the definite or one of the demonstrative markers depends on the existential status of the head. If the head has been previously mentioned in discourse, it is preceded by the definite marker

tsá and the relative clause ends with the demonstrative *yá*. The choice of remaining demonstratives depends on the distance between the speaker and the head of the relative clause. The relative clause may, but does not have to, be enclosed in a demonstrative frame:

(1)   tsá   sígà   tá   gún-ú-tà   yá
       DEF   pot   COM   open-SO-REF   DEM
       'the pot that opened'

Just like focus constructions, relative clauses are pragmatically dependent, as shown by the use of the dependent aspectual markers.

The negation of relative clauses differs significantly from the negation of other clauses. When the head is modified by a negative relative clause, the relative clause is preceded by the marker *kùl*, regardless of the grammatical role and the semantic function of the head.

2. Focus on the subject in verbless clauses

The order Subject Predicate is the coding means for focus on the subject in equational clauses:

(2)   mákwà   yá   yà
       girl   DEM   COP
       'it is only a girl'

Pronominal subjects for focus in clause-initial position are drawn from the independent set:

(3)   íí   mìnd-á   ráyá
       1SG   man-GEN   hunt
       'it is me who is a hunter'

(4)   íí   zwáŋ
       1SG   child
       'I am the child'

(5)   íí [pause]   màlí
       1SG   older sibling
       'I am the older brother'

(6)   *kághá* [pause]   *màlí*
       2SG   DEM   older sibling
       'you are the older brother'

3. The copula in focus and relative clause constructions

The copula *yà* can be used in focus and relative clause constructions. Its function appears to be linked to contrastive focus, i.e. providing correct information in contrast to the incorrect presupposition that the hearer may have:

(7)   *ghódxì*   *ndá*   *ghàvà*   *mìdá*   *yà*   *ká-xən*
       quiver   ASSC   arrow   inside   COP   COMP-3PL
       ' "it is a quiver and an arrow that are inside," they said'

(8)   *kà*   *m` ndú*   *yà*   *dágálá*
       SEQ   man   COP   important
       'and the man is the most important person'

The copula occurs less often in relative clause constructions, but it is found there nevertheless:

(9)   *fìtík*   *yà*   *nzì-í*   *gà*   *mókóló*   [*nzà+í*]
       time   COP   live-1SG   in   Mokolo
       'the time I lived in Mokolo'

4. Focus on and relativization of the subject in verbal clauses

The fundamental difference between the coding of a focused/relativized subject and the coding of any other focused or relativized argument or adjunct is that the perfective aspect with a focused subject is coded by the particle *tá* (note the high tone) preceding the predicate, i.e. the comment on the focused/relativized subject. This is the same particle that marks the object. We gloss it, however, as "COM" for "comment" in order to distinguish its function in focus constructions. Other arguments in focus do not have a comment clause marked by the particle *tá*. The particle *tá* does not occur in the imperfective aspect:

(10) *tíkvá   gàvlì   tá   mn-áy   kà-zlày   ná   sí   m̀ndú*
Tikva Gavli COM   say-PO   SEQ-COMP COMP PAST man
dzì'í   rà   tá   krì   dzì'í
kill-1SG Q OBJ   dog   kill-1SG
'It is Tikva Gali who said: is it a man that I killed? I killed a dog'

(11) *màmú tsəmək-xà   kdérí tà   ìrí   ndà   tsí*
exist enemy-PL:GEN Kderi IMPF envy ASSC 3SG
'there were enemies of Kderi who envied him'

(12) *tsátsí   tá   yà-gá-p-tá   lá   lùwà gà*
3SG   COM   beget-INN-OUT-REF   COLL Luwa PREP
xdí   yá   gùlí
Hdi   DEM   also
'it is he who started the clan of Luwa among the Hdi'

One of the most important structural elements coding the element in focus is the comment clause. The comment clause after a focused element is pragmatically dependent. The perfective aspect in such clauses is coded by the simple form of the verb rather than by reduplication. The object of the verb, if any, is not marked by the preposition *tá* but rather follows the verb directly:

(13) *yàghí   tá   xágá   m̀ndú ngá   dzà'á*
squirrel COM   invite:PL   people FOR   go
vàgh   mù   vwàx-á   mídz-á-ní
spend day PREP   field-GEN mother-in-law-GEN-3SG
'it is Squirrel who invited people for the common work in the field of his mother-in-law.'

A focused subject followed by a reduplicated verb is ungrammatical:

(14) **ì   mbítsá   ndá   pghìntà   skwá-p-skwá tá*
ASSC.PL Mbitsa   ASSC Phinta   buy-OUT-buy OBJ
hlà-tán
cow-3PL
for 'it is Mbitsa and Phinta who sold their cow'

If the verb has extensions, it must have the referential marker *tà* with low tone:

(15) | *tàlá* | *zàŋwá* | *tsá* | *yá* | *tá* | *màrà-n-tá* |
| --- | --- | --- | --- | --- | --- |
| exorcise | demon | DEF | DEM | COM | show-3-REF |

xlə́-g-í-n-tá		*índà*	*ghwádàk-á*	*skwì*	*mà*
gather-INN-AWAY-3-REF		all	bad-GEN	thing	PREP

xgá	*yá*
home	DEM

'It is *tàlá zàŋwá* that shows that one has chased away all the bad things from the compound.'

(16) | *kàbgá* | *áŋnì* | *tá* | *dzà-f-tá* | *justice* |
| --- | --- | --- | --- | --- |
| because | 1PL.EXCL | COM | build-UP-REF | justice |

gà	*mokolo*	*yá*	*ká-'á*
PREP	Mokolo	DEM	COMP-3SG

' "because it is we who built justice in Mokolo," he said'

There is no difference between the focus construction for the subject and the relative clause construction with the subject as its head. Both are illustrated in the following example, consisting of three clauses: the first, a clause with a relativized subject; the second, a sequential clause; and the third, a clause with the subject in focus:

(17) | *zwán* | *tá* | *kd́-í-ŋ-tá* | *dzáŋgá* | *gà* | *xdí* |
| --- | --- | --- | --- | --- | --- |
| child | COM | finish-AWAY-3-REF | studies | PREP | Hdi |

kà	*lá-ghw-í*	*dá*	*mokolo*	*ná*
SEQ	go-D:SO-REF	PREP	Mokolo	COMP

zwán	*tá*	*lá-ghw-í*	*ráná-kw-á-ní*
child	COM	go-D:SO-REF	copulate:PL-ABS-GEN-3SG

'a child who finished his studies in Hdi and went to Mokolo is a child who went to prostitute himself'

A relative clause with the subject as its head does not differ from the focus-on-subject clause:

(18) | *zíndíŋ* | *tà* | *w-à* | *lúwá* |
| --- | --- | --- | --- |
| zindin | PREP | mouth-GEN | top |

'it is *zindin* that is on the top of the shed'

Relativization of the subject of verbal clauses obeys the same rules that apply in focus constructions. In the perfective aspect the relativized subject is followed by the comment clause marker *tá*, and the verb has to have the referential marker if it has any extensions:

(19) màmú sàn mghám tá kl-áf-tá màràkw xìs
      exist certain chief COM take-UP-REF wife two
      'There was once a chief who married two wives.'

(20) skwì tá ngà-ná-f-tá gám tá tv-á
      thing COM close-DEM-UP-REF barrier PREP road-GEN
      xídákú xdí
      civilization Hdi
      'thing that closed the road to civilization of Hdi'

(21) ghùrúm tá lá-ghw-í ndá mà xàdík
      hole COM go-D:SO-REF ASSC in ground
      'a hole that went deep into the ground'

(22) índà mndú-xà tá kwálá-úgh-tà kà dzúlá
      all man-PL COM refuse-SO-REF as pray
      tá dzúlà
      OBJ prayer
      'all people who refused to get converted to Islam'[13]

Here are examples of a relativized subject serving as the object of a matrix clause:

(23) kà lá-m ùvá hlà-ná-ghá-tá vàzák tá
      SEQ enter-IN cat find-DEM-D:GO-REF rooster COM
      dífà-ùgh-tà mà tùghwázàk
      hide-SO-REF PREP hibiscus
      'When Cat entered, he found Rooster hiding in the hibiscus.'

In the future tense the form dzà'á is used:

(24) skwì dzà'á mágá-kú màxtsím
      thing FUT make-ABS tomorrow
      'the thing that will happen in the future'

The head of the relative clause may be accompanied by various anaphoric and deictic markers, depending on whether it has been previously mentioned in discourse and on the distance between the head of the relative clause and the speaker. The frame tsá . . . yá indicates that the head of the relative clause has been previously identified in discourse:

(25) *tsá*   *mǹndú-xà*   *yá*   *tá*   *tàxá-f-tá*   *sá-ghà*
     DEF   man-PL   DEM   COM start-UP-REF   arrive-D:PVG
     tà   *xàdík-á*   *xdí*
     PREP   ground-GEN   Hdi
     'It is those people that started to settle the Hdi land.'

The focused subject may be preceded by an adverb of time, but that does not affect its coding. What is important is that the subject precedes the verb:

(26) *tíngìl*   *vàzák*   *tá*   *lá-ghà*   *tántán*
     first   rooster   COM go-D:PVG first
     'It is Rooster that arrived first.'

5. Subject focus in the imperfective

The subject in focus in the imperfective aspect precedes the predicate. The predicate is marked by the marker *tà*. The verb in the imperfective aspect is in nominalized form:

(27) *mbítsá*   *tà*   *xàní*
     Mbitsa   IMPF sleep:NOM
     'it is Mbitsa who sleeps'

(28) *mántsá yá*   *ká*   *mndrá*   *mndú*   *tà*   *sábì*   *dàgà*
     like that   COMP bottom   man   IMPF leave   from (Hau.)
     mà   *mndrá*   *xgá*
     PREP   bottom   house
     'It is like that that the soul of the man leaves the bottom of the house'

If the verb has an extension, it must be followed by the referential marker *tà*:

(29) *mbítsá*   *tà*   *bà-dá-f-tà*
     Mbitsa   IMPF build-ALL-UP-REF
     'it is Mbitsa that builds it up'

The verbs that can occur with or without objects may have the potential object marker *-ay* added:

(30)   tsá   íí   yá   tà   gwàdá
        DEF   1SG   DEM   IMPF   talk
        'it is me who is talking'

(31)   tsá   íí   yá   tà   gwàd-áy
        DEF   1SG   DEM   IMPF   talk-PO
        'it is me who is saying this'

Inherently transitive verbs must have the potential object marker -áy added if no object follows:

(32)   mbítsá   tà   b-ày
        Mbitsa   IMPF   build-PO
        'it is Mbitsa that builds'

The focused subject may also occur in the stative aspect:

(33)   kábgà   mndrá tsá   mndú-xà yá   yá   ndá   snà
        because   clan DEF   man-PL   DEM   DEM   STAT   know
        tá   tsáf-tá   dùvúl yà   ngá   lmú   ndá   tsí
        OBJ   make-REF   metal COP   PREP   war   ASSC   3SG
        'Because this clan knows how to make metal for war'

6. Focus on and relativization of the object

A focused and relativized object is placed in preverbal position and is not preceded by the object marker *tá*. The potential ambiguity regarding the role of a focused or a relativized argument is resolved by at least two coding means: the overt coding of all subjects and the use of pragmatically dependent aspectual markers.

In the imperfective aspect, the verb in the comment clause has the root form, which may end in schwa if syllabification rules require vowel insertion (examples with focused objects were obtained by eliciting the contrastive focus function):

(34)   ghùz-á   xìyá   yà   tà   sə   mbítsá
        beer-GEN   guinea corn   DEM   IMPF   drink   Mbitsa
        'it is the corn beer that Mbitsa drinks' or 'is drinking'

(35) *hlà   tà   xn-ə́   mbítsá   gù   á   wà*
      cow   IMPF   slaughter Mbitsa   goat   NEG   NEG
      'it is a cow that Mbitsa is slaughtering, not a goat'

The schwa becomes *u* when it follows a labial consonant:

(36) *hlá   yà   tà   mbú   mbítsá   gù   á   wà*
      cow   COP   IMPF   treat   Mbitsa   goat   NEG   NEG
      'it is a cow that Mbitsa is treating, not a goat'

(37) *hlà   tà   dzáwú   mbítsá   gù   á   wà*
      cow   IMPF   buy   Mbitsa   goat   NEG   NEG
      'it is cow that Mbitsa is buying, not a goat'

The schwa also becomes *u* when followed by the unspecified human subject *lu* because the consonant *l* is transparent with respect to vowel harmony:

(38) *tsá   yá   skwì   tà   xgù-lù   kà   zə̀gláftà*
      DEF   DEM   thing IMPF   call-UH   as   zə̀gláftà
      'this is the thing that one calls *zə̀gláftà*'

If the verb has extensions, it is followed by the referential marker *ta*:

(39) *hlú'wí   tà   fá-m-tù-lú   mà   kùwá*
      meat   IMPF   put-IN-REF-UH   PREP   dish
      'it is meat that one puts into a dish'

If a locative object is in focus, it is not preceded by a locative preposition:

(40) *mókólò   tà   hl-í   índà   fitík*
      Mokolo   IMPF   go-1SG   every   day
      'it is to Mokolo that I go everyday'

There is no distinction between a focused object and a relativized object:

(41) *wúyá   skwì   tà   klá-ghá-tà-ŋnì,   ká-xəŋ*
      here   thing IMPF   take-2SG-REF-1PL.EXCL   COMP-3PL
      'here is the thing that we give you'

(42) *tsá*   *mndúxà*   *dzà'á* *zbà-f-tù-lú*   *yá*
      DEF   man-PL   FUT   look for-UP-REF-UH   DEM
      ná   *zò'àl-á*   *pghù*   *ndá*   *màrkw-á*
      COMP   husband-GEN   libation   ASSC   wife-GEN
      pghù   *yà*
      libation   COP
      'the people that one will look for will be the father and the
      mother of libation'

An object that is the head of a relative clause is fronted, i.e., it occurs
before the predicate, and therefore it does not have the object marker *tá*
unless it is also the object of the matrix clause (see below). The function
of the object as head of the relative clause is assured by the presence of
subject markers on the verb. Relativization of the object differs from rela-
tivization of the subject in that there is no focus marker *tá* following the
head in the perfective aspect:

(43) *xìyá-xìyá*   *skwì*   *txá-f-ì*   *tà*   *ná*   *délèwèr*   *ná*
      corn-corn   thing   expel-UP-1SG   PREP   DEM   book   DEM
      ná . . .
      DEM
      'The general themes that I have written about in this book . . . '

In the perfective aspect the verb has the completive marker *a* if followed
by the subject:

(44) *gítà*   *kàm*   *ná*   *dzà'á*   *plá-ghá-m-plá-ŋní*
      today   then   DEM   FUT   return-2SG-IN-return-1PL.EXCL
      tá   *dá-ghá*   *dzà-xòŋ*
      OBJ   father-2SG   kill-3PL
      'today, then, we will avenge your father whom they have killed.'

Compare the focus construction:

(45) *sán-à*   *mghám-á*   *lá*   *dzúlá*   *tà*   *xgù-lù*   *kà*
      certain-GEN   chief-GEN   COLL   prayer   IMPF   call-UH   as
      xámáyádzi   *tá*   *tx-áy*   *kà*   *zlày*   *ná* . . .
      Hamayadzi   COM   expel-PO   SEQ   COMP   DEM
      'a certain Moslem chief called Hamayadzi said that . . .'

(46)   *skwì*   *tà*   *kúmì-yí*   *tá*   *mn-áy*   *xàdà*   *ná,*
       thing   IMPF   want-1SG   OBJ   say-PO   here   DEM
       mndú   *tà*   *fá-ná-tá*   *ngùɗúf-á-ní*   *dém*
       man   IMPF   put-DEM-REF   importance-GEN-3SG   all
       dém   *ngá*   *skwì*   *mná-nú-lú*   *ndá*   *mná,*   *kà*
       all   FOR   thing   say-DEM-UH   ASSC   say   like
       skwì   *tà*   *nghə́-tsí . . .*
       thing   IMPF   see-3SG
       'What I want to say is that a person who gives more importance to the things that he is told rather than to the things that he sees . . . '

If the head of the relative clause has been mentioned before in discourse, the whole relative clause is enclosed in the definite frame *tsá . . . yá*:

(47)   *tsá* [PAUSE]   *tsá*   *màràkw*   *kùl*   *ɗvə́-tsí*   *yá*
       DEF   DEF   woman   REL:NBG   like-3SG   DEM
       tsá   *yá*   *tá*   *yà-tá*   *zóŋ*   *kà*   *mndú*
       DEF   DEM   COM   give birth-REF   son   SEQ   man
       yà   *dágálá*
       DEM   big
       'The wife he did not like gave birth to a son who became a great personality.'

(48)   *ngá*   *tsúk-wá-f-tà*   *índà*   *skwì*   *sí*   *zà-n-lú*
       NORM   sweep-IMP:PL-UP-REF   all   thing   PAST   eat-3-UH
       mà   *tsá*   *fìtík*   *yá*
       PREP   DEF   time   DEM
       'one should sweep up everything one ate during those times'

If the head of the relative clause is present in a discourse environment, even in a speech, it is enclosed in a demonstrative frame coding the distance between the speaker and the object:

(49)   *nà-ná*   *gwàɗá*   *dzà'á*   *gwàɗ-í*   *ná*   *ná*   *tà*
       DEM-DEM   word   FUT   tell-1SG   DEM   DEM   IMPF
       ghəŋ-à   *ndzà-kw-á-ɗá*   *kɗá*
       head-GEN   happen-ABS-1SG   last year
       'The story that I am going to tell is about what happened to me last year'

In the future tense formed with the auxiliary *dzà'á*, the second-person pronoun follows the auxiliary rather than the verb. The verb ends in the third-person potential object marker *-áy*:

(50)   tsá   gwàdá   dzà'á   ká   gwàd-áy   yá   ná   tà
        DEM   word   FUT   2SG   tell-PO   DEM   COMP PREP
        ghóŋ-à
        head-GEN
        'The story that you are going to tell is about . . . '

The perfective aspect with a focused object is coded by the completive form of the simple verb, i.e. the form ending in the vowel *a*:

(51)   hlà   (yà)   xáná   mbítsá   gù   á   wà
        cow   DEM   slaughter.PL Mbitsa   goat   NEG   NEG
        'it is a cow that Mbitsa slaughtered, not a goat'

Pronominal subjects in comment clauses have low rather than high tone. This is the marker of the clause's being a comment clause. Recall that in pragmatically independent clauses, pronominal subjects have high tone. Like other focused elements, the object in focus may be followed by the copula *yà*. Recall that if a low-tone noun is followed by a copula, its tone becomes high. Thus *hlà* becomes *hlá* when followed by a copula:

(52)   hlá   yà   xná-lù   gù-á   wà
        cow   COP   slaughter-UH goat-NEG   NEG
        'it is a cow that was slaughtered, not a goat'

If there is no copula, the tone on the focused object remains the same as the underlying tone:

(53)   hlà   xná-lù   gù-á   wà
        cow   slaughter-UH goat-NEG   NEG
        'it is a cow that was slaughtered, not a goat'

If the subject is vocalic, it assumes the tone of the preceding verb and does not carry the tonal marking of the comment clause. The verb *skwá* has high tone, and therefore the first-person object is realized as *í* rather than *ì*:

(54) hlá   yà   skw-í   gù   à   wà
      cow   COP   buy-1SG goat NEG NEG
      'it is a cow that I bought, not a goat'

The third-person singular subject must be overtly marked when the object is in focus. The explanation for this fact is straightforward: Without a pronominal subject, the grammatical system would not be able to identify the role played in the clause by the fronted argument. Thus if a pronominal object is in focus, its form, drawn from the independent set, is the same as that used for a pronominal subject in focus. Therefore, the coding of the subject in the position after the verb is a disambiguating means. If the verb belongs to a class where the presence of an object must be marked through suffix *ná*, such a suffix is also present in an object-focus construction:

(55) íí   dífá-ná-tsì
      1SG   hide-DEM-3SG
      'it is me that he hid'

7. The topicalized subject and focused object

The following discussion, as well as the discussion in section 8, is based solely on elicited data. Topicalization of the subject and focus on the object can be combined in one clause. The construction consists of the subject in clause-initial position, followed by the object, followed by the preposition *ngá*, followed by a possessive pronoun coding the features person and number of the subject of the clause, followed by the verb: Subject Object *ngá* Pronoun Verb. The noun preceding the preposition *ngá* must have high tone. Thus the words *hlà* 'cow' and *gù* 'goat' both occur as *hlá* and *gú* before the preposition *ngá*. A clause with a topicalized subject and an object in focus has the same coding as a topicalized clause rather than as a comment on the element in focus:

(56) tsátsí hlá ngá-ní   tà   dzáw-áy   gù   á   wà
      3SG   cow FOR-3SG IMPF sell.PL-PO goat NEG NEG
      'as for him, it is cattle that he sells, not a goat'

If the subject is not overtly marked, the pronoun following *ngá* is independent rather than possessive:

(57)   *íí   hlá   ngá-ɗá   tà   dzáw-áy   gú   ngá   tsátsí*
        1SG   cow   FOR-1SG   IMPF   buy-PO   goat   PREP   3SG
        'I am selling cows; he is selling goats'

8. The topicalized adverb and focused object

If an adverb is topicalized and the object is in focus, the adverb occurs first and the object precedes the verb. The subject is marked through the possessive construction *ngá*-Pronoun, where the pronoun codes the subject of the clause. The verb cannot have a subject clitic. The sentence thus has the structure of a topicalized rather than a focus clause:

(58)   *bàɗú   lúmá   ghùz-á   kwálábá   ngá-ní   tá*
        day   market   beer-GEN   bottle   FOR-3SG   COM
        dzáwá-p-tà
        sell.PL-OUT-REF
        'on the day of the market, it was bottled beer that she sold'

(59)   *bàɗú   lúmá   ghzú   ngá-tán   tá   dzáwá-p-tà*
        day   market   beer   FOR-3PL   COM   sell.PL-OUT-REF
        'on the day of the market, it was beer that they sold' (the form *ghzú* represents a product of the first vowel omission)

The possessive construction, which is obligatory when the object is in contrastive focus, is not allowed in pragmatically neutral clauses:

(60)   *bàɗú   lúmá   tà   skwá-p-tà   ghùz-á   kwálábá*
        day   market   IMPF   buy-OUT-REF   beer-GEN   bottle
        *(ngá-ní)
        FOR-3SG
        'on the day of the market she sells bottled beer'

9. Focus on the dative

One means of coding focus on datives involves the fronting of the dative argument preceded by a preposition marking the argument as different from the subject and the object. Two prepositions are used for this purpose, *ngá* 'FOR' and the object-marking preposition *tá*, plus an independent pronoun or noun. The fronted dative phrase is followed by the prag-

matically dependent clause, as evidenced by low tone on the subject pronouns:

(61)   ngá   pghìntà   vlá-n-t-ì   tá   gù
       FOR   Phinta   give-3-REF-1SG   OBJ   goat
       'it is to Phinta that I gave a goat'

If the verb does not take dative arguments in its unmarked form, the third-person dative marker *ná* must be added:

(62)   ngá   mbítsá   dà-ná-tà-tsì
       FOR   Mbitsa   cook-DEM-REF-3SG
       'it is for Mbitsa that he cooked '

(63)   ngá-ghà   vlá-ghá-t-ì   tá   gù   ngá-ní   á
       FOR-2SG   give-2SG-REF-1SG   OBJ   goat   FOR-3SG   NEG
       wà
       NEG
       'it is to you that I gave a goat, not to him'

(64)   ngá-ní   vlá-n-t-ì   tá   gù   ngá   ghá   á
       FOR-3SG   give-3-REF-1SG   OBJ   goat   FOR   2SG   NEG
       wà
       NEG
       'it is to him that I gave a goat, not to Raku'

(65)   ngá   pghìntà   vlá-n-t-ì   tá   gù   ngá
       FOR   Phinta   give-3-REF-1SG   OBJ   goat   FOR
       ràkù   á   wà
       Raku   NEG   NEG
       'it is to Phinta that I gave a goat, not to Raku'

The dative argument in focus may also be coded by the preposition *tá*, the same marker that codes the direct and dative object in pragmatically independent clauses:

(66)   tá   tsátsí   vlá-n-t-ì   tá   gù   tá   kághá
       OBJ   3SG   give-3-REF-1SG   OBJ   goat   OBJ   2SG
       á   wà
       NEG   NEG
       'it is to him that I gave the goat, not to you'

(67)   *tá*   *pghìntà*   *vlá-n-t-ì*   *tá*   *gù*   *tá*   *ràkù*
      OBJ   Phinta   give-3-REF-1SG   OBJ   goat   OBJ   Raku
      á   *wà*
      NEG   NEG
      'it is to Phinta that I gave the goat, not to Raku'

One can also put the dative argument after the verb, and the subject pronoun is then affixed to the dative argument. The dependent aspectual coding is used. The subject pronouns, except for the third-person subject, are drawn from the verbal set. The third-person subject pronoun is drawn from the independent set. The tone of the syllable to which the subject pronouns are added becomes high, as is the case with verbs when subject pronouns are added. Thus the noun *pghìntà* becomes *pghìntá* before subject pronouns:

(68)   *vlá-n-tà*   *pghìnt-í*   *tá*   *gù*
      give-3-REF   Phinta-1SG   OBJ   goat
      'I gave a goat to Phinta'

(69)   *vlá-n-tà*   *pghìntá-ká*   *tá*   *gù*
      give-3-REF   Phinta-2SG   OBJ   goat
      'you gave a goat to Phinta'

(70)   *vlá-n-tà*   *pghìntá*   *tsátsí*   *tá*   *gù*
      give-3-REF   Phinta   3SG   OBJ   goat
      'he gave a goat to Phinta'

The language assistants did accept a non-human recipient:

(71)   *vlá-n-tà*   *hlá-ká*   *tá*   *kzún*
      give-3-REF   cow-2SG   OBJ   grass
      'you gave grass to the cow'

10. Dative as the head of the relative clause

The identity of the head of the relative clause as a dative argument is assured by the dative markers on the verb in the perfective and by the possessive markers in the imperfective aspect. The verb *vlá* 'give' requires the marker *n* when there is a dative argument. Since our texts do not have relativized datives, the examples below have been elicited:

(72) *tsá   màràkw   vlá-n-í   tá   pìtsákw   yá*
      DEF   woman   give-3-1SG   OBJ   hoe   DEM
      'the woman to whom I gave a hoe'

(73) *sá-ghà   á   mìndú   vlá-n-í   tá*
      arrive-D:PVG   NEG   man   give-3-1SG   OBJ
      cédì   wà
      money (Ful.)   NEG
      'the man to whom I gave money did not come'

The dative marker on the verb cannot be used in the imperfective aspect. Instead, the dative role of the head of the relative clause must be coded by possessive pronouns:

(74) *tsá   mìndú   tà   bà-lú   tá   xgá-ní   yá*
      DEF   man   IMPF   build-UH   OBJ   house-3SG   DEM
      'the man for whom the house is being built'

(75) *tsá   mìndú   bà-ná-f-lú   tá   xgá   yá*
      DEF   man   build-DEM-UP-UH   OBJ   house   DEM
      'the man for whom the house was built'

(76) *tsá   mìndú   tà   nuà-lú [nùù-lú]   tá   hlà-ní   yá*
      DEF   man   IMPF   fatten:PVG-UH   OBJ   cow-3SG   DEM
      'the man for whom his cow is fattened'

(77) *tsá   mìndú   nuà-ná-f-lú   tá   hlà   yá*
      DEF   man   fatten:PVG-DEM-UP-UH   OBJ   cow   DEM
      'the man for whom the cow was fattened'

11. Focus on and relativization of adjuncts

An adjunct is marked for focus by clause-initial position or by the position following the verb but preceding the subject, whether nominal or pronominal.

11.1. Focus and relativization of locatives

The focus on the locative adjunct has the locative preposition present in clause-initial position. Subject pronouns in the comment clause have low tone:

(78)   *tà*   *ná*   *sáràk*   *ná*   *dzà'á*   *zá-kà*   *tá*   *mghám*
    PREP   DEM   stick   DEM   FUT   eat-2SG   COM   chief
    'because of this stick [lit. 'on this stick'] you are going to eat well'

(79)   *tà*   *kághúní*   *dzà'á*   *pghá-ŋnì*   *tá*   *ngùɗúf*
    PREP   2PL   FUT   pour-1PL.EXCL   OBJ   suffering
    ká-xəŋ
    COMP-3PL
    ' "it is on you that we will pour the suffering," they said'

The following example illustrates the use of the independent imperfective in a pragmatically independent clause and the dependent imperfective in the comment on focus construction:

(80)   *tà*   *mág-áy-xən*   *àmá*   *ndá*   *mà*   *nìžéryà*   *tà*
    IMPF   do-PO-3PL   but   ASSC   IN   Nigeria   IMPF
    mágú-lú   *bàɗ*   *tsá*
    do-UH   day   DEF
    'they do it, but it is in Nigeria that they do it on those specific days.'

Relativization of the locative head has the same form as focus on the locative adjuncts. The distinction between stative and directional locatives is coded through the lexical meaning of the verbs of the relative clause and through the system of extensions on the verb. Thus if the locative is stative, that is marked by a stative verb such as *nzá* 'to be, to exist':

(81)   *dágálá*   *tsá*   *lúwá*   *tà*   *nzà-kù-tsí*   *yá*
    big   DEF   village   IMPF   live-ABS-3SG   DEM
    'the village where he lives is large'

(82)   *dágálá*   *tsá*   *lúmá*   *lá-ghú-tsí*   *yá*
    big   DEF   village   go-D:PVG-3SG   DEM
    'the market to which he went is large'

The difference between the element in focus and the relativized element is that the relativized element together with the relative clause is considered as one entity, as evidenced by the way the demonstrative frame is added. The demonstrative frame encloses both the head of the relative clause and the relative clause. Such an entity may be marked as the topic of the sentence through the topic-marking demonstrative *ná*:

(83) *tsá   xgá   hlà-gh-í   mídà   yá   ná   dágálá*
      DEF   house find-2SG-1SG inside DEM   DEM   big
      'the house where I found you is big'

(84) *tsá   xgá   xàná-ghá   yá   ná   dágálá*
      DEF   house sleep-2SG   DEM   DEM   big
      'the house where you sleep is big' (lit. 'the house of your sleep is big')

11.2. Focus and relativization of time adjuncts

The focus and relativization of time adjuncts is similar to the focus/ relativization of the locative adjuncts. The dependent aspect markers indicate that the fronted element is the focus rather than the topic of the clause. In addition to the dependent imperfective coding, the evidence for the focus function is also provided by the contrast with the time phrase in the second clause:

(85) *mándá ghàlyá   kúní   tà   ghúyá   d'áŋgwà   ngá-d'á*
      since long time 2PL   IMPF   make   illness   FOR-1SG
      àmá,   gítà   fitík-á   ngá   ghúní   gúlí
      but   today   time-GEN   for   2PL   still
      'You have made me suffer for a long time, but today it is your turn'
      (written sources)

Several adverbs of time occur in clause-initial position for both topicalization and focus. The distinction between the topicalized and the focused adverb is coded by the form of the clause following the adverb. The focused adjunct is coded only by the dependent aspect:

(86) *gítà   dzáwá-p-tà-tsí   tá   gù-xà*
      today   buy.PL-OUT-REF-3SG   OBJ   goat-PL
      'today, he/she sold goats'

Compare the pragmatically neutral:

(87) *gítà   dzáwá-p-dzáwá   tá   gù-xà*
      today   buy.PL-OUT-buy.PL   OBJ   goat-PL
      'he/she sold goats today'

(88)   *màxtsím   dzà'á   dzáwá-p-tà-tsí*   *tá*
        tomorrow   FUT   buy.PL-OUT-REF:SUBJ-3SG   OBJ
        índà   xìyá-ní
        all   corn-3SG
        'it is tomorrow that she will sell all her guinea corn'

Cf.:

(89)   *dzà'á   dzáwá-p-dzáwá   tá   índà   xìyá-ní*
        FUT   buy.PL-OUT-buy.PL   OBJ   all   guinea corn-3SG
        màxtsím
        tomorrow
        'she will sell all her guinea corn tomorrow '

11.3. The associative as head of the relative clause

If the head of the relative clause is an argument that is coded through an associative preposition in a pragmatically independent clause, the role of such an argument is coded by a resumptive prepositional phrase consisting of the associative preposition *ndá* followed by the anaphoric pronoun *tsí*. The demonstrative, if any, comes after the prepositional phrase:

(90)   *ìnà   á   tsá   pìtsákw   tà   xv-ì   tá   xvá*
        good   NEG   DEF   hoe   IMPF   work-1SG   OBJ   work
        ndá   tsí   yá   wà
        ASSC   3SG   DEM   NEG
        'the hoe that I work with is not good'

(91)   *ngá-dá   tsá   kálɔk   là-p-tsí   tá   skwì   ndá*
        FOR-1SG   DEF   spade   dig-OUT-3SG   OBJ   thing   ASSC
        tsí   yá
        3SG   DEM
        'the spade that he dug with is mine'

Focus on the associative phrase is achieved through the placement of the associative phrase with its marker in clause-initial position:

(92)   *ndá   mndr-á   pálà   mántsá yá*
        ASSC   bottom-GEN   stone   like that
        dghà-f-tà-lú   tá   mndrá ní
        establish-UP-REF-UH   OBJ   bottom-3SG
        'it is with this type of foundation stone that they laid its foundation'

11.4. Focus on the adverb of manner

The adverb of manner is fronted for focusing:

(93) *àmmá kà   ghúvà zwán   tà   ghùdz-í   tá*
      but   like   yellow   IMPF   urinate-1SG   OBJ
      kwàní
      urine
      'but I urinated yellow urine' (verb *ghùdzá* 'urinate')

Focus on the anaphor referring to the manner of event, one of the most frequant types of focus constructions in natural discourse, has the phrase *mántsá yá* 'like that' in clause-initial position. Such a construction is followed by the complementizer and the subject of the clause. The verb follows the subject:

(94) *mántsá   yá   ká-xàn   mb-ì-dí-f-tà*
      like that   DEM   COMP-3PL   cure-AWAY-1SG-EP-UP-REF
      'That is how they cured me.'

Focus on the reason is different from other focus constructions in that it requires the auxiliary verb *klá* 'take' to code the perfective aspect. The auxiliary is followed by the sequential marker and the main verb. The auxiliary verb occurs in its root form:

(95) *kàbgà   hámáyádzì   kə́l   xdí   kà   bábá*
      because   Hamayadzi   take   Hdi   SEQ   build:PL
      xgá   tà   ghwá   tà   ghwá
      house   PREP   mountain   PREP   mountain
      'it is because of Hamayadzi that Hdi build their houses on the mountains' (written sources)

(96) *mántsá   yá   klə́-ŋní   kà   sá-ghà   dá*
      that   DEM   take-1PL.EXCL   SEQ   arrive-D:PVG   PREP
      xàd-nà
      here-DEM
      'that is why we came here' (written sources)

In the imperfective aspect the form *klə́* is preceded by the preposition *tà*:

(97)   kábgà   mántsá   tà   klǝ-í   kà   zbá   skwì
        reason like that IMPF   take-1SG   SEQ   search thing
        ngá   z-áy-ŋní   ká-'á
        FOR   eat-PO-1SG   COMP-3SG
        'it is because of this that I allow myself to look for something
        for us to eat' (written sources)

11.5. The possessor as head of the relative clause

The identification of the head of the relative clause as the possessor is
coded through the use of the singular or plural possessive pronouns on
possessums:

(98)   tsá   m̀ndú   skw-í   tá   pìtsákw-á-ní   yá
        DEF   man   buy-1SG   OBJ   hoe-GEN-3SG   DEM
        'the man whose hoe I bought'

(99)   tsá   m̀ndú-xà   skw-í   tá   pìtsákw-á-táŋ   yá
        DEF   man-PL   buy-1SG   OBJ   hoe-GEN-3PL   DEM
        'the men whose hoe I bought'

(100)   tsá   m̀ndú   ǹghá-n-í   tá   dá-ní   yá
        DEF   man   see-3-1SG   OBJ   father-3SG   DEM
        'the man whose father I saw'

The focus on possessor is coded by the use of the preposition ngá for
followed by the possessor:

(101)   àmá,   gítà   fitíká   ngá   ghúní   gúlí
        but   today   time   FOR   2PL   already
        'But today, it is your time already'

12. Focus on the predicate

A verb phrase may be placed in focus through the formation of a cognate
object and the placement of the cognate object in clause-initial position.
The subject is coded either through the dative preposition ngá followed by
the possessive pronoun or through subject suffixes:

(102)   *dzángá*   *ngá-ní*   *tà*   *dzáng-áy*
       learn (Ful.)   FOR-3M   IMPF   learn-PO
       'his job is to go to school'

       dzángá   *ngá-ɗá*   *tà*   *dzáng-áy*
       learn (Ful.)   FOR-1SG   IMPF   learn-PO
       'my job is to go to school'

The subject cannot be coded by verbal subject markers:

(103)   *mà*   *fìtík-á*   *zàváɗ*   *skálú*   *ngá*   *tán*   *tà*
       PREP   time-GEN   zàváɗ   dance   PREP   3PL   IMPF
       skál-áy-*(xən)
       dance-PO-3PL
       'during the *zavad* season it is dancing that they do'
       (*zàváɗ* 'flute')

Focus on the predicate can be combined with topicalization of an argument or adjunct. The cognate object follows the topicalized constituent, and the subject of the clause is coded through the preposition *ngá* plus a possessive pronoun:

(104)   *tsá*   *tsí*   *záv*   *zává*   *ngá*   *ní*
       DEF   3SG   play   play   FOR   3M
       'as for him, he just plays'

(105)   *mà*   *fìtík-á*   *zàváɗ*   *skál*   *ngá*   *ɗá*   *tà*   *skál-áy*
       PREP   time-GEN   zàváɗ   dance   FOR   1SG   IMPF   dance-PO
       'during the *zavad* season it is dancing that I do'

(106)   *mà*   *fìtík-á*   *zàváɗ*   *skálú*   *ngá*   *tán*   *tá*
       PREP   time-GEN   zàváɗ   dance   FOR   3PL   COM
       skál-ú-tà
       dance-SO-REF
       'during the *zavad* season it is dancing that they did'

13. Negation, focus, and relativization

Where the focus and relativization constructions differ is in negation. Negation of a focused element does not differ substantially from negation of other clauses, but negation of relative clauses has a form of its own. Therefore, the negative relative clause represents a construction different from the focus construction.

13.1. Negation of focused arguments

The negation of the focused element has the form of the negation of an equational clause, and it consists of enclosing the comment clause in the negative frame *á . . . wà*. The negative marker *á* occurs after the focused constituent and the marker *wà* at the end of the comment clause. The comment-on-focus clause does not change when the focused element is negated:

(107) mbítsá   á   tá   skwá-tá   hlà   wà   kóftá   yà
       Mbitsa   NEG   COM   buy-REF   cow   NEG   Kofta   DEM
       'it is not Mbitsa that bought a cow, it is Kofta' or possibly
       'it is Mbitsa that did not buy a cow, it is Kofta'

(108) mbítsá   á   tà   skwá   hlà   wà   kóftá   yà
       Mbitsa   NEG   IMPF   buy   cow   NEG   Kofta   COP
       'It is not Mbitsa that is buying a cow, it is Kofta'

If the focused element is the object, the third-person subject must be overtly coded in the comment clause:

(109) hlà   á   skwá-tsí   wà   gú   yà
       cow   DEM   buy-3SG   goat   goat   COP
       'it is not a cow that he bought, it is a goat'

(110) hlà   á   tà   skwá-tsí   wà   gú
       cow   NEG   IMPF   buy-3SG   NEG   goat
       yà   [skwù-tsú-wà]
       COP
       'it is not a cow that he bought, it is a goat'

(111) *hlà*   *á*   *tà*   *skwá*   *mbítsá*   *wà*   *gú*
       cow   NEG   IMPF   buy   Mbitsa   NEG   goat
       yà [skwù-tsú-wà]
       DEM
       'it is not a cow that Mbitsa bought, it is a goat'

13.2. Negation of relative clauses

If the relative clause is negative, the predicate is preceded by the marker *kùl* 'without', but it does not end with the negative marker *wà* or *wù*, as other negative clauses do:

(112) *mántsá*   *dzà'á*   *kwálá* *xàn*   *kùl*   *ghál-gàl-tá*
       like that   FUT   xxx   3PL   without   steal-AGAIN-REF
       kághà
       2SG
       'In this way they will not rob you again.' (written sources)

(113) *kábgá*   *tsáyá* *kàl*   *lá*   *dàblàm*   *ndá*   *lá*   *kdày*
       reason   DEM   take   COLL   Diblem   ASSC   COLL   Kday
       kùl   *xàd*   *tà*   *dgà*   *vghá-xá*   *gìtá*   *ná*   *nà*
       without   lack   IMPF   divide   body-PL   today   DEM   COP
       'That is why the Diblem people and the Kday people have not sep
       arated from each other until today.'

In the imperfective aspect the marker *kùl* may be followed by the auxiliary verb *xàd(ú)*, the same coding means as the one occurring in other negative imperfective clauses:

(114) *zwán-ì*   *kùl*   *xàdú-lù*   *tà*   *dváy*
       child-PL   without   lack-UH   IMPF   love-PO
       'children that are not loved'

(115) *tá*   *dghwáná-lú*   *ndá*   *náná*
       IMPF   be well-UH   PREP   now
       bá   *ìmí*   *yá*   *yà*   *kùl*   *xàdú*   *sá-ghà*
       except   water   DEM   COP   which:NEG lack   arrive-D:PVG
       'They are well, except for rains that do not come.'

(116)   *ndàná-p-xà*   *gúí*   *tà*   *gháng-à*   *xàdík*
        think-OUT-DOWN   also   PREP   head-GEN   world
        kùl   *xàdú*   *kdà-và-k-tà-ní*
        without   lack   end-APPL-INN-REF-3SG
        'He also thought about the world, which has no end.'

14. Conclusions

The form of focus and relative clause constructions depends on which component of the clause is in focus or is relativized, and on whether another component of the clause is also topicalized. Focus and relativization of subjects differ from focus and relativization of other elements in that in the former case, the perfective aspect is coded by the particle *tá* following the focused subject. When some other element is in focus or relativized, the perfective aspect is coded through the simple (non-reduplicated) form of the verb with the suffix *a*, followed by the subject. The imperfective aspect is coded through the imperfective marker *tà* and the verb in the root form. The subject is coded by a possessive construction when the focus construction also contains a topicalized element. The verb may be coded for focus through the formation of a cognate object placed in clause-initial position.

Relative clause constructions are identical with focus constructions, with the only substantial difference in the form of negative clauses. The previous mention of the head is coded by the definite marker *tsá*, which precedes the head, and the demonstrative *yá*, which follows the relative clause. Similarly, the deictic nature of the head is coded by the appropriate deictic frame. When the head of the relative clause is the matrix clause object, the object noun phrase, like other object noun phrases in clause-initial position, is not marked by the preposition *tá*. Relativization of locative and instrumental phrases may involve an anaphoric locative expression following the verb.

Negation with the focused element in its scope involves the negative frame *á...wà*, which encloses the comment clause. Negation of the relative clause involves the preposition *kùl* 'without', followed by the verb in perfective aspect, and then by the auxiliary *xàdú* and the form *tà* in the imperfective aspect.

Chapter 20

Paratactic, conjoined, sequential, and counterexpectation clauses

1. Introduction

This chapter describes several types of constructions encoding relations between clauses within a sentence, constructions in which one clause is not a complement of another or a modifier of a constituent of another clause. Each type of construction proposed has specific structural characteristics that distinguish it from all other types.

Paratactic constructions have no conjunction between clauses. The semantic characteristic of this type of sentence is that the proposition of one clause does not depend on the proposition of another, either temporally or in a cause-effect relationship.

Conjoined clauses are clauses with a specific construction indicating both the goal as stated in the first clause has been achieved.

Disjoined clauses have a conjunction indicating an either/or relationship between the two clauses.

Sequential clauses code a temporal sequence or a result of the preceding clause. Sentences with sequential clauses differ from paratactic sentences both functionally and formally. There are also sentences denying hearer's or speaker's presupposition and supplying what the speaker believes to be a correct information, corresponding to "instead of S1, S2."

Negative sequential sentences in which the second clause is a semantic negation of the possible consequences of the preceding proposition.

Counterexpectation clauses are clauses where the proposition of second clause is in some way unexpected or is not an obligatory effect of the proposition of the first clause.

2. Paratactic asyndetic constructions

A paratactic construction has no conjunction between the clauses. The existence of parataxis as a special type of construction, separated from any sequence of separate clauses in a discourse, is provided by the fact that in the paratactic construction the subject is overtly coded only once, usually

after the first predicate. Although no coordination is used and no specific relationship between the clauses is coded, the clauses are arranged in a temporal sequence:

(1)   *ngá*   *lá-bà*   *m̀ndú-xà*   *ksà-gá-ghà-tà*
       NORM   go-OUT   man-PL   catch-INN-D:PVG-REF:SUBJ
       'People should go out, catch him, and bring him back.'

(2)   *ngá*   *xgá-x-tá*   *màlá*   *mà*   *mndrá ghúní*
       NORM   call-DOWN-REF   older   PREP   clan   2PL
       wúyá-f-tá   *tsá*   *tsú'úŋ*   *yá*   *hlrá-f-xà-tá*
       worship-UP-REF   DEF   stone   DEM   pierce-UP-DOWN-REF
       tsá   *ghùzú*   *yá*   *t̀dà*
       DEF   beer   DEM   on it
       'One would call the elder of your clan to worship the stone, and to pour beer upon it' (The use of the verb *hlrá* 'pierce' for "pour" remains obscure)

If each of the clauses in a paratactic construction has a normative modality, the modality is overtly coded on each clause:

(3)   *bàd̀ú*   *xú'ú-á*   *tsá*   *zíndíŋ*   *yá*
       day   pound-GEN   DEF   germinated corn   DEM
       ngá   *dà*   *tá*   *mbízà*   *ngá*   *làbà-ná-f-tà*
       NORM   cook   OBJ   bean dish   NORM   mix-DEM-UP-REF
       ndá   *ghúv-à*   *gù*   *ngá*   *vlá-n*   *tá*   *zwàn-ì*
       ASSC   excrement-GEN   goat   NORM   give-3   OBJ   child-PL
       'On the day of pounding the corn, one would cook a bean dish, mix it with goat excrement, and give it to children.' (written sources)

3. Clauses conjoined by the verb *lá* 'go'

The coordinated clausal conjunction may be formed through the use of the verb *lá* 'depart, go'. The verb is used in its nominalized form, as evidenced by the fact that the subject pronouns are drawn from the possessive set. The verb *lá* may have extensions. Often the nominalized form of the verb *lá* is followed by the form *mbàd̀ ká* 'then'. The function of the auxiliary *lá* is to indicate separation and temporal sequentiality of events, when the event of the second clause has been completed. Events of the second clause are not the necessary consequence of the events of the first clause:

(4) *tsghà-dá-f*   *xáxən* *tá*   *sànì* *lá-ghà-ní*
     put up-ALL-UP 3PL   OBJ   one   go-D:PVG-3SG
     mbàɗ *ká*   *kà*   *tsghà-dá-f-tá*   *sànì* *zlíbí*
     then   COMP SEQ   send-ALL-UP-REF   one   bag
     'They sent up one bag, then they sent another bag.

The reason we postulate that the verb *lá* has grammaticalized into a conjunction is the frequency of its use as well as its meaning and the context in which it is used. In a text of 40 sentences ("Dog and Hyena") the verb *lá* is used 22 times. Some of these uses are lexical, i.e., on the face value of the sentence in isolation they may indeed code movement:

(5) *tà*   *ɗg-áy-ɗg-áy*   *tùrtúkw-á-ní*
     PREP   thresh-PO-thresh-PO   alone-GEN-3SG
     'he was threshing it alone'

(6) *mbàɗ* *ká*   *krì* *kà*   *lá-ghà*   *zlghá-n-tà*
     then   COMP dog   SEQ   go-D:PVG   help-3-REF
     'Then Dog came and helped him.'

In other usages, however, no movement is involved. Compare the next fragment, where the verb *lá* is used twice. Whereas the first use can be conceived of as representing the lexical verb 'go', the second use cannot:

(7) *mbàɗ* *ká*   *krì* *kà*   *ɗg-áy*
     then   COMP dog   SEQ   thresh-PO
     'And Dog kept threshing.'

(8) *lá-ghà*   *pákáw ghúvì* *kày* *kà*   *lá-b*
     go-D:PVG   hyena   thus   SEQ   go-OUT
     díngá-f-tá   *tsá*   *mbízà*   *yà*
     put on fire-UP-REF   DEF   bean dish   DEM
     'After Hyena₁ went, he₁ put the bean dish on the fire.'

Crucial evidence is provided by sentences where the verb *lá* is used with a subject that does not move, as in the second clause of the following example:

(9) *mbàɗ* *ká*   *krì* *kà*   *lá-b-ì*
     then   COMP dog   SEQ   go-OUT-REF
     'Then Dog went away.'

(10)   *lá-ghà*   *pákáw ghúvì*   *kà*   *mná-n-tá*   *krì*
        go-D:PVG   hyena   SEQ   tell-3-REF   dog
        'And Hyena said to Dog,'

It is very likely that grammaticalization from the verb "to go" to clausal conjunction went through a stage whereby the verb "to go" served as a bridge between one event and another. The subject moved to another location and a new action or event began there. All stages of grammaticalization are represented by the synchronic data. In the following sentence the "bridge" function of the verb *lá* is in evidence:

(11)   *mbàď*   *ká-'á*   *kà*   *w-í-g-í-n-tà*   *kà*
        then   COMP-3SG SEQ   take.PL-AWAY-INN-3-REF   SEQ
        lá-ghw-í   *ďífà-ná-tá*   *zwàn-à-ní*
        go-D:SO-REF   hide-3-REF   child:PL-GEN-3SG
        'He took his children and hid them.'

Additional evidence for the grammaticalization of the verb *lá* as a conjunction implying completion of the action of the following verb is provided by the fact that the following verb cannot be negated. Consider the following sentence:

(12)   *kà*   *lá-b-l-í*   *díngà-f-tá*   *mbízà*
        SEQ   go-OUT-go-1SG   put on the fire-UP-REF   bean dish
        'I have to go put the bean dish on the fire'

This sentence cannot be followed by a clause negating the second verb:

(13)   **àmá*   *díngà-f-tì-ì*   *wà*
        but   put on the fire-UP-REF-1SG   NEG
        for 'but I will not put it on fire'

Instead a different construction must be used for the expression "X has to do Y, but will not do it". One of the constructions used for this meaning involves the obligation marker *má*:

(14)   *má*   *dzà'á*   *díngá*   *mbíz-í*   *àmá*
        HYP   go   put on the fire   bean dish-1SG   but
        díngì-í   *wà*
        put on the fire-1SG   NEG
        'I should put the bean dish on the fire, but I will not do it'

In certain cases it is difficult to draw a precise line between the category of clausal conjunction and the lexical meaning "to go":

(15) *mbàɗ ká-'á   kà   w-í-g-ì-n-tà   kà*
      then COMP-3SG SEQ   take.PL-AWAY-INN-3-REF SEQ
      lá-ghú-í   ɗífà-ná-tá   zwàn-à-ní
      go-D:SO-REF   hide-3-REF   child:PL-GEN-3SG
      'He took his children out and hid them.'

The second conjunct may have a different modality from the first conjunct:

(16) *lá-m-à-ní   ndá   tà   zlàŋgwàɗák   ngá*
      go-IN-GEN-3SG   ASSC   PREP   back entrance   NORM
      lá-m-à-ní   hlà-ná-ghà-tà   zə'ál-á-tàn
      go-IN-GEN-3SG   search-DEM-D:PVG-REF   husband-GEN-3PL
      'Having entered through the back of the compound, she should
      find her husband.'

The evidence that the form *lá-m-à-ní* has a grammatical function despite its lexical characteristics is provided by the fact that one cannot insert any other lexical verb there.

4. Disjoined clauses

Clausal disjunction is coded by the form *á nà*, which we gloss as "or". The form *nà* is probably identical with the interrogative marker *nà*. The form *nà* can occur in identificational clauses:

(17) *twák rí   gù   á nà*
      sheep Q   goat   or
      'is it a sheep or a goat?'

The form *á nà* is a clausal disjunction only. Nominal disjunction is marked by the form *kó* occurring between disjoined noun phrases.

If a negative clause is combined with an interrogative in conjoined clauses, presenting a choice between two propositions, the affirmative clause ends in the interrogative marker *rí*, but the negative clause, in addition to the negative marker *wà*, also has the sequence *á nà* following *wà*:

(18)   *mágá-mágá rí   mágà   à   wà   á   nà*
      do-do   Q   do   NEG   NEG   Q
      'did he do it or did he not?' (note the low tone on the negative *à*,
      coding specific reference)

If there is a nominal subject, it occurs between the marker *á* and the
marker *nà*:

(19)   *ngà-ná-ngá   rí   ngà-ná   á wà   á   ná*
      grab-DEM-grab   Q   grab-ADD   NEG   3SG   DEM
      pákáwá ghúvì   nà   ká-'á   kà   zl-í-n-tá-tsí
      hyena   Q   COMP-3SG   SEQ   leave-AWAY-3-REF-3SG
      kà   ghwáyá-úgh-tà
      SEQ   run-SO-REF
      ' "Did Hyena grab it or not?" he thought. He left [a bag] and ran
      away.' (The high tone on *ngá* in *ngà-ná-ngá rí* is result of tone
      raising on the penultimate syllable in the interrogative clause.)

5. Sequential clauses

5.1. Forms of sequential clauses

The term *sequential* clause refers to the clause marked by *kà* or, more
rarely, *tà*. Such a clause may be the second or third in a sequence of
clauses, but it also may be the first in a sequence of clauses if it is pre-
ceded by an adverb of time. Sequential clauses are characterized by the
choice of the dependent aspectual system. In the imperfective aspect the
verb has the root form if it is not followed by the object:

(20)   *sá-bà   pákáwá ghúvì   kà   xvə-tsí*
      leave-OUT   hyena   SEQ   work-3SG
      'Having come out [of the hibiscus], Hyena works'

(21)   *mbàɗ   ká-xən   kà   ɗgú*
      then   COMP-3PL   SEQ   threshing
      'They kept threshing.'

Before the object the verb ends in *á*:

(22) mbàd ká-xàn   kà   dgá   xìyá
      then COMP-3PL SEQ   threshing guinea corn
      'They kept threshing guinea corn.'

The verb may also have the absolutive suffix kú to code the affected-ness of the subject:

(23) mándá díyá-f-tà-ní   kà   ghúálá-kwá-tsì
      after germinate-UP-REF-3SG   SEQ   dry-ABS-3SG
      'after it has germinated, it is drying up'

The perfective in a sequential clause is marked by the *realis* marker á if there are no extensions:

(24) sá-bà   pákáwá ghúvì kà   xvá
      arrive-OUT hyena   SEQ   work
      'Having come out [of the hibiscus], Hyena worked.'

The imperfective with an anaphoric object is coded by the potential object marker áy:

(25) mbàd ká-xàn   tàmá   kà   dghàd-áy
      then COMP-3PL finally SEQ   chew-PO
      'And now they are chewing it [the beans].'

The perfective with an anaphoric object is coded by the referential marker ta:

(26) mbàd ká-xàn   tàmá   kà   dghàdá-tà
      then COMP-3PL finally SEQ   chew-REF
      'And afterwards they chewed it [the beans].'

The imperfective without an anaphoric object is coded by the verbal noun:

(27) mbàd ká-xàn   tàmá   kà   dghàdú
      then COMP-3PL finally SEQ   chew
      'And now they are chewing' (no implication of an object)

When both clauses have a first- or second-person subject, the sequential clause does not code the subject overtly in the perfective or the imperfective aspect.

Imperfective:

(28)   *xlá-f-xl-í*   *tá*   *zwàn-á*   *krì*   *kà*   *xwáyá*
        take-UP-take-1SG OBJ   child-GEN dog   SEQ   run
        'I picked up the children of Dog and I was running'

The third-person singular subject pronoun is overtly marked in the se-quential imperfective aspect:

(29)   *sá-bà*   *pákáwá ghúvì*   *kà*   *xvə́-tsí*   *tá*   *xvá*
        arrive-OUT hyena   SEQ   work-3SG   OBJ   work
        'Having come out [of the hibiscus], Hyena worked.'

The progressive formed through the reduplication of the verb cannot be used in sequential clauses:

(30)   **da-dà*   *tá*   *d'àfá*   *kà*   *dzáw-áy-dzáw-áy*   *tà*
        cook-cook   OBJ   food   SEQ   sell-PO-sell-PO   PREP
        lúmá
        market
        for 'she cooked food and is selling it at the market'

Instead, a simple form of the verb must be used:

(31)   *dà-dà*   *tá*   *d'àfá*   *kà*   *dzáw-áy*   *tà*   *lúmá*
        cook-cook   OBJ   food   SEQ   sell-PO   PREP   market
        'she cooked food and sells it at the market'

5.2. Functions of sequential clauses

The sequential marker *kà* has one principal function: to indicate that the event takes place after a specified time. The reference time can be deter-mined through an adverb of time or through a preceding clause. The clause following the sequential marker is pragmatically dependent, i.e. marked by dependent aspectual forms. It may have the perfective or the imperfective aspect, and its time reference can be either past or present.

When the adverb of time occurs in clause-initial position, the following clause is marked by the sequential marker *kà*:

(32) *kɗá   mántsá kà   ksá-tá-ŋní   tá   hlɘ́ná . . .*
last year then   SEQ work-REF-1PL.EXCL OBJ work
'Last year, we worked . . . '

(33) *bìt   ná   gúlí kà   hlíʼyá-f-t-í   kà sáx-í*
year DEM again SEQ   leave-UP-REF-1SG SEQ go-down
'This year again, I left [the village] and came down'

(34) *mbàɗ ká-xən tàmá kà   dghàɗ-áy*
then COMP-3PL finally SEQ   chew-PO
'And now they are chewing it [the beans].'

If the main clause has the future tense, there is no sequential marker:

(35) *bàɗú pghù   dzà'á hlíʼyá-f-hlíʼyá   màràkw kà . . .*
day   initiation FUT   get up-UP-get up   woman   SEQ
'On the day of the initiation the wife will get up . . .'

The sequential marker *kà* may occur at the beginning of a sentence in discourse to code that the event, state, etc., marked by the sequential marker follows the event, state, etc., of the preceding sentence:

(36) *kà   lá-ghá   vàzák   ndzɗà-vá-tà   vàzák*
SEQ   go-D:GO rooster spend time-APPL-REF rooster
tà   xvá tà   ǹghɔ́-tsɔ́ ná   kà   sá-ghá
PREP work IMPF see-3SG   COMP SEQ   arrive-D:GO
ùvá
cat
'Rooster came. After having done some work, he sees Cat coming.'

(37) *tà   xúl-á   ngàtsá-f-tà-ní   tá   mìndɔ́-xà*
PREP after-GEN gather-UP-REF-3SG   OBJ   man-PL
vàghú   mà   vwàx-á-ɗá   ká'-á
work collectively PREP field-GEN-1SG COMP-3SG
kà   xlyá-f-tú-lú   kà   lá-ghú-lú
SEQ   leave-UP-REF-UH   SEQ   go-D:SO-UH
'Having gathered people, he said, "There is work at my in-laws'."
Each got up and went.'

The following fragment contains three instantiations of the sequential marker *kà*. The first codes a sequential sentence within a discourse; the

second codes a clause within a sentence, and the third again codes a sequential sentence within a discourse:

(38)   kà   ndàná-p-tá   n.n.   kà   zlày   ná,   má
       SEQ   think-OUT-REF   N.N.   SEQ   COMP   DEM   HYP
       ìná   gúyá   ghə́ŋ   ká-'á   kà   tskàná tá   índà
       good   meet   head   COMP-3SG   SEQ   gather OBJ   all
       grá-xà-ni   tà   dzáŋgá.
       friend-PL-3SG   IMPF   study
       'And n.n. thought it would be good to get organized, and he gathered all his friends who were in school.' (written sources)

(39)   kà   tsà-f-tá-xəŋ   tá   xgà   tsá   gúyá
       SEQ   design-UP-REF-3PL   OBJ   name   DEF   meet
       tá   ghə́ŋ-á-táŋ   yá   kà: AERT
       PREP   head-GEN-3PL   DEM   as   AERT
       'And they named their association AERT [Association des élèves resortissants de Tourou]' (written sources)

(40)   tsátsá-f   á   wà   kà   gì
       recognized-UP   NEG   NEG   SEQ   immediately
       zl-í-n-tá-tsí   tá   tsá   mà   xís-á
       chase-AWAY-REF-3SG OBJ   DEF   PREP   second-GEN
       màrkwá-tán   yá
       wife-3PL   DEM
       'She did not recognize him₁ and he₂ immediately chased away the second wife' (object and subject of the two clauses have different referents)

5.3. Clauses corresponding to "instead of proposition 1, proposition 2"

The sequential clause is also used after the marker mángá 'instead'. The verb of the first clause is nominalized, its subject being possessive rather than verbal. The sequential clause is coded as a temporal apodosis, viz., its referential marker tà has low tone, even if followed by the subject:

(41) mágá-tà-d̠á   tá   lèkól   kày   mántsá   mángá
     do-REF:SUBJ-1SG OBJ   school then   instead
     dzáŋg-áy-d̠á   tá   dzáŋgá   kà   ksá-f-tà
     study-PO-1SG OBJ study   SEQ   catch-UP-REF:SUBJ
     dángwà   t-û
     illness   OBJ-1SG
     'When I was going to school, instead of studying, I caught an ill
     ness' (lit. an illness caught me')

6. Negative sequential clauses

Negative sequential clauses code the negative outcome of an event, state,
etc. These clauses deny the expectations or presuppositions resulting from
the proposition of the first clause or deny the expectations that the hearer
might have with respect to the situation. The formal marker of these
clauses is the preposition kùl 'without', the same marker that is used in
negative relative clauses:

(42) z-ú-zà   tá   hlúí   dímdím   kùl   pd̠á-ná-tà
     eat-SO-eat OBJ   meat   all   without   leave-DEM-REF
     'he ate all the meat and did not leave anything'

Negative sequential clauses are similar to other clauses with the form kùl
'without' in that they do not have the negative frame á . . . wà.

7. Counterexpectation clauses

The counterexpectation clause is marked by the conjunction má, àmmá or
àmá, 'but' (borrowed from either Hausa or Fula but originally coming
from Arabic):

(43) ksá-f-tà   dángwà   t-û   kày   mántsá
     catch-UP-REF:SUBJ   illness   OBJ-1SG   then   then
     lá-x-à-d̠á   tà   lòpitál   má   xàd̠ú   kwóbù
     go-DOWN-1SG PREP   hospital (Fr.)   but   lack   money
     wà
     NEG
     'When I caught the illness, I went to a hospital, but there was no
     money then'

The background clause may also be coded by the markers *yá ná*. Recall that the form *ná* marks the backgrounded material:

(44)   *díyá-f-díyá-xən*   *yá*   *ná*   *àmá*   *tà*
        germinate-UP-germinate-3PL   DEM   DEM   but   IMPF
        ghúálá-kú-ghúálá-kú-xən
        dry-ABS-dry-ABS-3PL
        'they germinated, but they are drying up'

In concessive clauses the perfective aspect is marked by the reduplicated form of the verb. However, unlike in independent clauses, the third-person singular subject is overtly marked by the form *tsí*, the same form that otherwise marks the third-person singular subject in the imperfective aspect:

(45)   *díyá-f-díyá-tsí*   *yá*   *ná*   *àmá*   *tà*
        germinate-UP-germinate-3SG   DEM   DEM   but   IMPF
        ghúálá-kú
        dry-ABS
        'It has germinated; however, it dries up.'

8. Discourse conjunctions

The term *discourse conjunction* refers to those markers whose function is to connect independent sentences in discourse. The role of sequential marker *kà* as a discourse conjunction has already been described in a preceding section. Now we shall concentrate on the most frequently used discourse conjunction, *mbàɗ ká*.

The conjunction *mbàɗ ká* is a complex structure consisting of the form *mbàɗ* 'walk' and the complementizer *ká*. The evidence that the second el ement is a complementizer is supported by the fact that subjects of the following clause, whether nominal or pronominal, follow the complementizer. Moreover, pronominal subjects after *ká* have low rather than high tone, again a characteristic of complementizers.

The discourse conjunction *mbàɗ ká* has all the features of an adverb of time, as evidenced by the fact that it must be followed by a sequential clause. The function of the marker is to connect various elements in discourse. The marker does not necessarily code the sequence of events in time. Compare sentences (2), (3), and (4) in the text "Dog and Hyena". These sentences are marked by *mbàɗ ká*, and yet they do not indicate sequentiality in time:

(46) *mà   sán-à   fìtík   mbàd́   ká   ì*
PREP   other-GEN   time   then   COMP   ASSC.PL
pákáwá ghúvì kà   nzà-tà   ndá   krì
hyena   SEQ   stay-REF   ASSC   dog
'At one time, Hyena and Dog lived together.'

(47) *mbàd́   ká   pákáwá ghúvì   kà   xvá-tá   xvá*
then   COMP   hyena   SEQ   farm-REF   farm
'Hyena had already farmed.'

(48) *mbàd́   ká   xə̀n   kà   d́gú*
then   COMP   3PL   SEQ   thresh
'when they were threshing'

The discourse function is a means to build a narrative rather than to indicate the semantic relationship between the elements of discourse.

9. Conclusions

Hdi has grammaticalized several types of relationships between clauses. Paratactic asyndetic constructions, characterized by the absence of any conjunction, imply a relationship between the clauses without specifying the nature of the relationship. Conjoined clauses, marked by the auxiliary verb *lá* 'go', code the perfectivity of the events of the first and second clause. Sequential clauses marked by *kà* imply a temporal or logical sequence between the event of the first clause and the event of the second clause. Negative sequential consecutive clauses, marked by the conjunction *kùl*, indicate that an event that would be expected to follow the first clause did not occur. Counterexpectation clauses are marked by the form *má* or *àmmá* and deny the potential consequence of the preceding proposition. The sequential marker *kà* and the form *mbàd́ ká* can function as discourse conjunctions.

Chapter 21

Clausal complements of verbs of saying

1. Introduction

Clausal complements of verbs of saying are important for the study of complementation because the formal means used in such clauses have been grammaticalized in several other functions. We begin with a description of the coding means, followed by the description of the functions of complementation for individual verbs. Three components are relevant: the complement-taking verbs, the complementizers, and the form of the complement clause.

The verbs of saying include *mná* 'say', *lmá* 'forbid', *d́áwá* 'ask', *txá* 'expel' [words], and *gwàd́á* 'talk'. The complementizers occurring with verbs of saying are *ká mántsá* 'like that', and *kà zlày*, consisting most probably of the sequential marker *kà* and the quotation form of the verb *zl* 'talk'.

The discussion of complements of verbs of saying is divided into the following sections: the *de dicto* complementizer *ká*; the omission of verbs of saying; the *de dicto/de re* distinction with complements of verbs of saying; and deontic complements of verbs of saying.

2. The complementizer *ká*

2.1. The form and syntactic position of the complementizer

The complementizer *ká* is interesting because of its syntactic position, the morphological properties connected with it, and its function. All these properties can be explained by the proposed sources of its grammaticalization. The complementizer occurs after the complement clause. It is followed by the subject of the verb of saying. The verb of saying, if any, occurs after the subject of the matrix clause.

The evidence that *ká* is a complementizer rather than simply a verb of saying is provided by the fact that the matrix clause may have its own verb:

(1) *m̀nd-á   ráyá   Mbákà   ká   mbítsá   mná-tà*
    man-GEN hunt   Mbaka   COMP   Mbitsa   say-REF
    'Mbitsa said that Mbaka is a hunter'

The possible claim that *ká* is in fact a verb of saying has only two arguments in its favor. The first is that it is followed by subjects, nominal or pronominal, and the second is that in specific interrogative clauses *ká* could be said to be a predicate:

(2) *wá   ká'-à*
    what   COMP-3SG
    'what did he say?'

(3) *wá   kí-'ì*
    what   COMP-1SG
    'what did I say?'

The argument against *ká* being a verb is the fact that it cannot be used as a predicate in the future tense:

(4) **wá   dzà'á   ká*
    what   FUT   COMP
    for 'what will he say?'

Instead, the verb *mná* 'say' must be used:

(5) *nú   dzà'á   tsí   mn-áy*
    'what   FUT   3SG   say-PO
    'what will he say?'

Moreover, the form *ká* may occur as a complementizer with the future tense:

(6) *wá   ká-à   dzà'á   mn-áy*
    what   COMP-3SG FUT   say-PO
    'what will he say?'

For other questions where a verb of saying is part of the background, one must also use the verb *mná*:

(7)   wá   tá   mná-tà
       who   COM   say-REF
       'who said that?'

(8)   gá   mná-tà-tsí   nà
       PREP   say-REF:SUBJ-3SG   Q
       'where did he say that?'

(9)   kà   mná-tá-tsí
       SEQ   say-REF:SUBJ-3SG
       'and he said'

The form ká cannot be used as a predicate in negative clauses. Instead negation of the verb mná 'say' must be used:

(10)   xádˀ   skwì   mná-tsì   wà
       lack   thing say-3SG   NEG
       'he did not say anything'

In natural discourse, the verb of saying is often omitted and the complementizer is the only indicator of what type of matrix predicate the sentence has.

2.2. Subject pronouns and the complementizer

Pronominal subjects of the matrix clause follow the complementizer:

(11)   lá   ká-xǝn   mná-ná-tà
       go   COMP-3PL   tell-3SG-REF
       'they told him to go'

All subject pronouns following the complementizer except for the third-person singular á have low tone. Recall that in pragmatically independent clauses, subject pronouns except for the third-person plural have high tone.

The third-person singular pronoun is á, as opposed to the zero-marking of the perfective aspect of verbs or the tsí of the dependent imperfective aspect. The form á occurs as a third-person subject marker in several other environments, such as sequential clauses. The evidence that á is the third-person singular is provided by its complementary distribution with other pronominal forms following ká:

(12)   *sá-ghá-sá*   *ká-xòn   ndá   fí*
        arrive-D:PVG-arrive   COMP-3PL ASSC   1SG
        'they told me to come'

(13)   *sá-ghà-sá*   *ká-ì/kà   ndá   tsí*
        arrive-D:PVG-arrive   COMP-1SG/2SG   ASSC   3SG
        'I/you told him to come'

When the pronoun *á* follows the complementizer *ká*, the complementizer is often reduced to *kà* or *kà*:

(14)   *sá-ghà-sá*   *kà̄-á   ndá   fí*
        arrive-D:PVG-arrive   COMP-3SG ASSC   1SG
        'he told me to come'

The complementizer may be further reduced to the consonant *k* when followed by the third-person singular *a*. Evidence for this reduction is that the vowel following *k* is articulated separately, producing the sequence *k'á*. In our transcription, we represent each instance of the complementizer as it actually occurred, rather than trying to use one conventionalized transcription.

3. The coding of the addressee

If a verb of saying is used, the nominal addressee is coded as an object, viz. by the position following the verb. If the addressee is pronominal, it is coded by the appropriate pronoun affixed to the verb. For the third person this pronoun is *ná*. Both types of coding of the addressee are illustrated in the following fragment:

(15)   *lá-ghà   pákáw ghúvì   kà   mná-n-tá   krì*
        go-D:PVG   hyena   SEQ   tell-3-REF dog
        'And Hyena said to Dog!'

        yàgh-ká   dá   ngh-ú   dà   sígà   yá
        should not-2SG   PURP   look-SO PREP   pot   DEM
        ká-'á   mná-ná-tà
        COMP-3SG   tell-DEM-REF
        ' "Do not look inside the pot," he said to him.'

(16) *yàgh-ká* *dá* *ngh-ú* *dà* *sígà* *yá*
should not-2SG PURP look-SO PREP pot DEM
ká-'á *mná-ghá-tà*
COMP-3SG tell-2SG-REF
' "Do not look inside the pot," he told you.'

(17) *yàgh-ká* *dá* *ngh-ú* *dà* *sígà* *yá*
should not-2SG PURP look-SO PREP pot DEM
ká-'á *mn-íxà-tà*
COMP-3SG tell-1SG-REF
' "Do not look inside the pot," he told me.'

If the verb of saying is omitted, the addressee is marked by the associative preposition *ndá*:

(18) *wá-ná-f-wá*   *ná* *máhláká-d'á* *ná,*
walk around-DEM-UP-walk around DEM wall-1SG   DEM
ká-'á *ndá* *dùxwál-xà-ní*
COMP-3SG ASSC youngster-PL-3SG
' "Surround [my house] with a wall," he told his people.'

(19) *ká-xən* *ndá* *tsá* *mìndú-xà* *yá* *mántsá*
COMP-3PL ASSC DEF man-PL DEM like that
'they were saying thus to the people'

4. The order of clauses in complementation

4.1. The problem

In complements of verbs of saying, nominal complements follow the matrix clause and clausal complements precede the matrix clause. Nominal complements such as "word", "news", "story" follow the matrix verb. If there is a subject following the verb, the object is preceded by the preposition *tá*:

(20) *mìn-íxà-mná* *tá* *púrkútú ndzúm*
tell-1SG-tell OBJ story
'he/she told me a story'

(21) *mìn-íxà-mná* *tá* *lfíd'-á* *gwàd'á*
tell-1SG-tell OBJ new-GEN word
'he/she told me the news'

Clausal complements precede the matrix clause. When the verb of saying is omitted, the complementizer and the subject are the only traces of the matrix clause:

(22)   *tà*   *dzà-'í*   *ká*   *rvérí*
        IMPF   go-1SG   COMP   lion
        ' "I will go," said Lion.'

(23)   *xgà-n-tí-'í*   *tá*   *gwì'yán*   *wà*   *ká'-á*
        call-3-REF-1SG   OBJ   elephant   NEG   COMP-3SG
        ' "I will not invite Elephant," he said.'

(24)   *yàgh-ká*   *dá*   *ǹgh-ú*   *dà*   *sígà*   *yá*
        should not-2SG   PURP   look-SO   PREP   pot   DEM
        ká-'á   *mná-ná-tà*
        COMP-3SG   tell-DEM-REF
        ' "do not look inside the pot," he told him.'

The addressee phrase occurs after the complementizer:

(25)   *lá-ghà-ní*   *dà*   *gwì'yán*   *kàdàkàdàk*   *tà*
        go-D:PVG-3SG   PREP   elephant   please   IMPF
        kúm-ày-í   *tá*   *kághá*   *ngá*   *dzà'á*   *dá*   *vàghú*   *mà*
        like-PO-1SG   OBJ   2SG   FOR   go   PREP   work   PREP
        vwàx-á-d'á   *ká*   *ndá*   *gwì'yán*
        field-GEN-1SG   COMP   ASSC   elephant
        'Having arrived at Elephant's, he said, "Please, I would like you to come to work in the field of my in-laws." '

4.2. An explanation of clausal order

In order to explain the different behavior of the nominal and the clausal complements, it is useful to invoke the distinction between *de dicto* and *de re* complements (cf. Frajzyngier 1991). The complement of the verb of saying is in the domain *de re* if it represents a specific object, including the specific result of the performing of a speech act. The *de re* complements follow the matrix verb.

The complement is in the domain *de dicto* if it refers to something that has been said. *De dicto* complements precede the matrix clause.

The same utterance may be presented as being in the domain *de re* (what actually has been uttered) or in the domain *de dicto* (the sense of what has been uttered). The clause may be presented as being in the do-

main *de re*, i.e., it may follow the complementizer with its subject. But in such a case, it must be preceded by a complementizer marking it as actual utterance, e.g. *mántsá* 'like that':

(26)   *ká*   *yàghí*   *mántsá,*   *lá-m-là*   *dífà-ùgh-tà*
COMP   Squirrel   COMP   go-IN-go   hide-SO-REF
xàdí   *yà*   *mà*   *tùghwázàk*   *xàdí*   *yà*   *6á*
here   DEM   PREP   hibiscus   here   DEM   please
'Squirrel said, "Go hide yourself here in the hibiscus, here in this very place, won't you?"'

Most often, the complement clause that follows the complementizer with its subject also ends with a complementizer and its subject:

(27)   *ká*   *yàgh*   *mántsá*   *dífà-úgh- dífà*   *xád*   *yà*
COMP   Squirrel   COMP   hide-SO-hide   here   DEM
ká   *yàghí*
COMP   squirrel
'Squirrel said, "Hide yourself here."'

(28)   *ká*   *ùvá*   *mántsá*   *má*   *sí*   *tà*   *dzá-í*
COMP   cat   COMP   HYP   PAST   IMPF   go-1SG
mndán   *ná á*   *dúŋ*   *à*   *ká*   *dá*   *xgà-n-tá*
but   DEM   COND   except   2SG   FUT   call-3-REF
krì   *ká*   *ùvá*
dog   COMP   cat
'Cat answered, "I might go, but on condition that you do not invite Dog."' (lit. 'but will you invite Dog?')

In the second instantiation, the subject may be represented by a pronoun rather by a full noun:

(29)   *ká*   *yàghí*   *mántsá*   *xgà-n-tì-í*   *tá*   *krì*
COMP   squirrel   COMP   call-3-REF-1SG   OBJ   dog
wà   *k'-á*
NEG   COMP-3SG
'Squirrel answered that he would not invite Dog.'

(30) ká-'à   ná: [pause] kùlá xtsíŋg-á skw-à   pdú
      COMP-3SG DEM   grave nose-GEN thing-GEN poverty
      ká-'à
      COMP-3SG
      'he said thus: a grave on the nose of poverty' (i.e. 'may poverty be
      cursed')

The addressee phrase can occur after both instantiations of the sequence
complementizer-subject:

(31) ká'-á   ndá   ùvá   mántsá   kàdàkàdàk   tà
      COMP-3SG ASSC   cat   like that   please   IMPF
      kúm-ày-í   tá   kághá ngá   dzà'á   dá   vàghú
      like-PO-1SG OBJ   2SG   FOR   go   PURP work
      mù   vwàx-á-d'á   ká-'á   ndá   ùvá
      PREP-at   field-GEN-1SG COMP-3SG ASSC   cat
      'He said to Cat: "I beg you to go and work in the field of my in-
      laws." '

The evidence for the distinction between *de dicto* and *de re* comple-
ments is provided by complements of the same verb, which, depending
on the position of the complement clause, are interpreted as being either in
the domain *de dicto* or the domain *de re*. For example, the verb *lmá*
'forbid' may take a *de re* complement, which follows the matrix clause
verb. The *de re* complement is preceded by the sequential marker *kà* rather
than by the complementizer *ká*:

(32) lmá-f-lmá   tí-'í   kà   zá   skwì
      forbid-UP-forbid OBJ-1SG SEQ   eat   thing
      'she prevented me from eating' (by refusing me food, etc.)

(33) lmá-f-lmá-lú   tí-í   kà   dzà'á dá   maroua
      forbid-UP-forbid-UH OBJ-1SG SEQ   go   PREP Maroua
      'I was forbidden to go to Maroua' (I did not go)

(34) lmá-f-lm-í   kà   zá   skwì
      forbid-UP-forbid-1SG SEQ   eat thing
      'I prevented him from eating' (he did not eat)

The complement clause may also be preceded by the imperfective
marker *tà*. In such a case the interdiction came during the event and the
event was not completed:

(35)   lmá-f-lmá   t-íí   tà   zá skwì
       forbid-UP-forbid   OBJ-1SG   IMPF   eat thing
       'While I was eating, she forbade me to eat and I stopped eating'

The same verb may also take *de dicto* complements, which precede the matrix verb:

(36)   mà   zə̀-tsí   kí-'í   lmá-f-tà
       PROH   eat-3SG   COMP-1SG   forbid-UP-REF
       'I told him not to eat'   (he might have eaten or not)

More evidence for the coding of the distinction between the *de dicto* and *de re* domains is provided by the complements of the verb *grá* 'think, calculate'. The complement clause is fronted if the object of belief is a proposition whose truth may be in doubt. In this case the complementizer occurs at the end of the complement clause, i.e. between the complement and the matrix clause:

(37)   m̀nd-á   ráyá   mbáká   ká   mbítsá   tà   gr-ày
       man-GEN   hunt   Mbaka   COMP   Mbitsa   IMPF   think-PO
       'Mbitsa thinks that Mbaka is a hunter'

If, however, the sentential complement is in the domain *de re*, it is not fronted and it does not end in a complementizer. Instead, the verb is nominalized and its subject appears as a possessive suffix:

(38)   grá-f-ndá-grá   mbítsá   tá
       think-UP-ASSC-think   Mbitsa   OBJ
       zà-ná-p-t-á-ní   tá   pìtsákw-á-ní
       forget-DEM-OUT-REF-GEN-3SG   OBJ   hoe-GEN-3SG
       'Mbitsa realized that he had forgotten his hoe'

5. Complements of cognitive verbs

The complement of the verb *sná* 'know, hear' may be marked by the complementizer *ká-'á* following the complement clause. In addition, the complement of cognitive verbs may also be marked by the complementizer *kà zl-áy* and the background marker *ná* following the matrix clause. First examples with the complementizer *ká-'á* alone:

(39)   ndá   sn-í   zà-ná-p-zá-xən   tá
STAT   know-1SG   forget-DEM-OUT-forget-3PL   OBJ
pìtsákw-á-tán   ká-'á
hoe-GEN-3PL   COMP
'I know that they forgot their hoe'

(40)   zlá-ná-zlá-ká   ká-'á   ndá   sn-í
leave-DEM-leave-2SG   COMP-3SG   STAT   hear-1SG
'I know that he said that you left it'

(41)   zlá-ná-zlá-ká   tá   pìtsákw   ká-'á   ndá
leave-DEM-leave-2SG   OBJ   hoe   COMP-3SG   STAT
sn-í
hear-1SG
'I know that you left your hoe'

The coding of the clausal complement differs from the coding of the nominal complement in that the nominal complement is preceded by the object marker tá:

(42)   ndá   sná-ŋní   tá   xùrgw-á-ní   gá   sərdʼək
stat   hear-1PL.EXCL   OBJ   roar-GEN-3SG   PREP   morning
'we have heard its [lion's] roar this morning'

In negative clauses, there is no complementizer and instead the complement clause is preceded by the sequential marker:

(43)   snà   í   kà   wá   tsí   wà
know   1SG   SEQ   who   3SG   NEG
'I do not know who he is' (In negative clauses the verb has low tone before the subject.)

Putting the complement clause in sentence-initial position results in an ungrammatical sentence:

(44)   *wá   tsí   kà   snà-í   wà
who   3SG   SEQ   know-1SG   NEG
for 'I do not know who he is'

The complement of the cognitive verb may be marked by the complementizer kà zlày ná to code the de re domain of the complement clause:

(45) kà   yàwú ndzà-kw-à-gá-p-tà   xdí   màndá
      SEQ   when settle-ABS-GO-INN-OUT-REF   Hdi   since
      ghàlíyá ndá   sná-xən   kà   zlày   ná   índà
      old time STAT know-3PL   SEQ   COMP   DEM   all
      m̀ndú-xà tá   mtú-tà   ná   ngá   d'ékd'ék   á
      man-PL   COM   die-REF   DEM   FOR   finish   NBG
      wù   ká-'á
      NBG   COMP
      'ever since the Hdi exist, they know that when people die, it is not
      forever' (i.e., the spirits of the ancestors do not die)

6. The imperative mood in complements of verbs of saying

The imperative mood of the complement clause is coded by the imperative
form of the verb in the *de re* domain, i.e. when the complement clause
follows the complementizer. The verb is reduplicated:

(46) ká   yàgh   mántsá   d'ífà-úgh-d'ífà xád   yà   ká
      COMP   squirrel COMP   hide-SO-hide   here   DEM   COMP
      yàghí
      squirrel
      'Squirrel said, "Hide yourself here." '

In the *de dicto* domain, i.e. when the complement clause precedes the
complementizer, the simple form of the verb is used (in elicited sentences
the verb *mná* 'say' is most often present):

(47) lá ká-xən   m̀n-íxà-tà
      go COMP-PL   tell-1SG-REF
      'they told me to go'

(48) lá ká-xən   mná-ghá-tà
      go COMP-3PL   tell-2SG-REF
      'they told you to go'

(49) lá ká   mbítsá   mná-ná-tá   mbáká
      go COMP Mbitsa   tell-DEM-REF Mbaka
      'Mbitsa told Mbaka to go'

If the addressee is plural, the verb of the complement clause has the plural
imperative form:

(50)   lá-wá-lá   ká-xən   mnà-ŋná-tà
        go-PL-go   COMP-3PL   tell-1PL:EXCL-REF
        'they told us to go'

(51)   lá-wá-lá   ká xən   mnà-má-tà
        go-PL-go   COMP 3PL   tell-1PL:INCL-REF
        'they told us to go'

If the verb mná is omitted, the addressee of the matrix clause is marked by the associative preposition ndá:

(52)   lá ká   mbítsá   ndá   tsí
        go COMP   Mbitsa   ASSC   3SG
        'Mbitsa told him to go'

(53)   lá-wá-lá   ká   íyù   ndá   xən
        go-PL-go   COMP   1SG   ASSC   3PL
        'I told them to go'

7. Backgrounding and complementation

The matrix clause with verbs of saying or with cognitive verbs may be followed by the proximate demonstrative marker ná. Recall that the proximate demonstrative marks comments on the topicalized element. The matrix clause is not a topic in the sentence with a verb of saying, but rather is background for the following clause, providing the information about the source from which the following clause comes. Thus the matrix clause may have a cognitive verb sná 'hear, know', grà 'measure, think'.

The verb grá 'think' is used mainly to code the speaker's uncertainty about the truth of the proposition. The matrix clause is backgrounded through the sentence-initial position and, crucially, through the use of the demonstrative ná.

(54)   tà   grá-f-t-í   ná   mà   zlrímà   Gùdálù
        IMPF   think-UP-REF-1SG   DEM   PREP   branch   Gudalu
        'I should think it is from one of the branches of the Gudalu clan'

(55) *wàtú   kí-'í   tà   gr-ày   ná   kà*
      according   COMP-1SG   IMPF   think-PO   DEM   like
      mìdrímímì   tà   nghá-tsì
      surprise   IMPF   see:PVG-3SG
      'according to what I think, he sees it as a surprise'

The matrix clause may also be followed by the sequence *kà zlày.* which marks the following clause as being in the domain *de re*:

(56) *mbàd'   ká   pákáwá ghúvì   kà   tx-áy*
      then   COMP   hyena   SEQ   expel-PO
      kà   zlày   ná   z-ú-mà   mbízà   kùrúkù . . .
      SEQ   COMP   COMP   eat-SO-1PL   bean dish   first
      'Then Hyena said, "Let us first eat the bean dish." '

The connection between backgrounding and verbs of saying is that the second clause is very often followed by the complementizer *ká-'á* regardless of the subject of the matrix clause:

(57) *zà-ná-p-z-í*   *kà*   *zlày*   *ná*   *mà*
      forget-DEM-OUT-forget-1SG   SEQ   COMP   DEM   PREP
      zlrímà   gùdálù   ká-'á
      branch   Gudalu   COMP
      'I forgot that it is from one of the branches of the Gudalu clan'

(58) *ndá   sn-í   kà   zlày   ná   mà   zlrímà*
      STAT   know-1SG   SEQ   COMP   DEM   PREP   branch
      gùdálù   ká-'á
      Gudalu   COMP
      'I know that it is from one of the branches of the Gudalu clan'

8. Prohibition in the complement clause

Prohibitive sentential complements precede the matrix clause. They are marked in one of four ways. In one, the complement clause is preceded by the prohibitive particle *mà*, which serves as the prohibitive marker in simple sentences. The matrix clause may consist of the complementizer and subject only. The coding of the prohibitive mood in the complement clause is the same as in matrix clauses, viz., the verb occurs in the root form before the subject:

(59) mà   zə-í   ká-'á
      PROH eat-1SG COMP-3SG
      'he forbade me to eat'

The second means of coding prohibition in the complement clause is through the use of the verb yàghá, followed by a nominalized form of the verb in the complement clause; the matrix clause is represented by the complementizer followed by the subject:

(60) yàgh-ká   dá   ńgh-ú   dà   sígà yá
      should not-2SG   PURP look-SO PREP pot   DEM
      ká-'á   mná-ná-tà
      COMP-3SG tell-DEM-REF
      ' "Do not look inside the pot," he said to him.'

(61) yàgh-ká   ńgh-ú   dìdà   ká-'á mìn-íxà-tà
      should not-2SG   look-SO inside COMP   tell-1SG-REF
      ' "You should not look inside," that's what he told me.'

(62) yàghá-tsí   xgà-n-tá   ùvá   kə-'í
      should not-3SG   call-3-REF cat   COMP-1SG
      'I told him not to invite Cat.'

The verb yàghá cannot be used in the matrix clause if that is the only clause of the sentence:

(63) *yàgh-ì   dá   ńgh   dìdà
      should not-1SG   PREP look inside
      for 'I should not look inside'

9. Cross-reference and disjoint-reference coding

Unlike many other Chadic languages (cf. Frajzyngier 1985d, 1985e), Hdi has no logophoric pronouns. Nevertheless, the language does have a means to indicate whether the third-person subject of the complement clause is co-referential with the third-person subject of the matrix clause. Co-referentiality is coded through the use of the first-person subject in the complement clause. Disjoint reference is coded through the use of the third-person subject á in the complement clause:

(64) *xgà-n-tì-ì*   *tá*   *ùvá*   *wà*   *ká*   *yàghí*
call-3-REF:SUBJ-1SG OBJ cat   NEG   COMP squirrel
' "I am not going to invite Cat," said Squirrel.'

(65) *xgà-n-tà-á*   *á*   *tá*   *ùvá*   *wà*   *ká*
call-3-REF:SUBJ-3SG NEG   OBJ   cat   NEG   COMP
yàghí
squirrel
' "He₁ is not going to invite Cat," said Squirrel₂.'

(66) *zà-ná-p-z-í*   *tá*   *pìtsákw-á-ghá*
forget-DEM-OUT-forget-1SG   OBJ   hoe-GEN-2SG
ká   *mbítsá*   *ndá*   *mbáká*
COMP Mbitsa   ASSC   Mbaka
'Mbitsa₁ told Mbaka₂ that he₁ forgot his₂ hoe'

The reference to the speaker and the addressee of the on-going discourse
is ruled out in (66) because the sentence initial position of the complement
clause marks it as being in the de dicto domain, and its arguments refer to
the reported discourse situation.

If the verb has an unmarked subject, then the third-person subject is
not co-referential with either of the participants in the discourse.

(67) *zà-ná-p-zà*   *tá*   *pìtsákw-á-ní*
forget-DEM-OUT-forget   OBJ   hoe-GEN-3SG
ká   *mbítsá*   *ndá*   *mbáká*
COMP Mbitsa   ASSC   Mbaka
'Mbitsa₁ told Mbaka₂ that he₃ forgot his₃ hoe'

(68) *lá-ghú-là*   *ká-'á*   *ndá*   *tsì*
go-D:SO-go   COMP-3SG   ASSC   3SG
'he₁ told him₂ that he₃ went'

In the preceding example, if the subject of the complement clause were the
same as the addressee of the matrix clause, the verb of the complement
clause would be marked by the second-person singular subject pronoun.
If the subject of the complement clause were the same as the subject of the
matrix clause, the verb of the complement clause would be marked by the
first-person singular subject pronoun.

In deontic complements, the overt coding of both the third-person ad-
dressee in the matrix clause and the third-person subject in the comple-

ment clause through the third-person pronoun *-tsí* indicates disjoint reference:

(69) kà   lá-tsì   ká   mbítsá   ndá   tsí
      SEQ   go-3SG   COMP Mbitsa   ASSC   3SG
      'Mbitsa₁ told him₂ that he₃ should go'

If the prohibition is directed at the addressee, then the embedded clause has the second-person singular pronoun. The order to the addressee is coded through the imperative form in the embedded clause:

(70) lá ká   mbítsá   ndá   tsí
      go COMP Mbitsa   ASSC   3SG
      'Mbitsa₁ told him₂ that he₂ should go'

Cross-reference between the subject of the matrix clause and the subject of the embedded clause is coded through the use of the first-person subject pronoun in the embedded clause:

(71) tà   dzà-í   ká   mbítsá   ndá   tsí
      IMPF go-1SG   COMP Mbitsa   ASSC   3SG
      'Mbitsa₁ told him₂ that he₁ should go' or 'Mbitsa told him that I should go'

Cross-reference with the addressee is coded through the second-person subject pronoun in the complement clause:

(72) tà   dzà-á-kà   ká   mbítsá   ndá   tsí
      IMPF go-2SG   COMP Mbitsa   ASSC   3SG
      'Mbitsa₁ told him₂ that he₂ should go'

10. Conclusions

Four means are used in complementation of verbs of saying and cognitive verbs: clausal order, complementizers *ká*, *kà zlày*, and the demonstrative *ná*. Clausal order is used to distinguish between *de re* and *de dicto* complements. If the complement is in the domain *de dicto*, the complement clause precedes the matrix clause. If the complement is in the domain *de re*, the matrix clause precedes the complement clause.

The verb of saying is usually omitted in natural discourse, leaving the *de dicto* complementizer *ká*, followed by a nominal or pronominal subject,

as the only marker of the matrix clause. The third-person singular subject following the complementizer *ká* is *á*. With verbs other than verbs of saying the form *ká-'á* has been grammaticalized as the complementizer for all persons and numbers.

Deontic complements of verbs of saying are marked by the imperative form of the complement clause verb. Second-person pronouns are suffixed to the verb of the complement clause.

Co-referentiality of the third-person subject of the complement clause and the third-person subject of the matrix clause is coded through the use of the first-person subject pronoun in the complement clause. Although this means eliminates potential ambiguity among the participants in the events described in the sentence, it creates ambiguity between the participants in the conversation and participants in the events of the sentence.

Chapter 22

Interrogative complements

1. Introduction

Interrogative complements may follow non-interrogative verbs of saying as well as the interrogative verb *ɗáwá* 'ask'. There are two possible orders for complements of the interrogative verb *ɗáwá* : Questions concerning the truth of the proposition (yes/no questions) and specific questions (wh-questions) occur in sentence-initial position followed by the matrix clause. They behave thus like complements in the *de dicto* domain. Requests for a thing or action occur after the matrix clause, thus behaving like *de re* complements:

(1)   *sí*   *kà*   *ɗáwà-f-tá-ŋní*   *tá*   *tví*   *dà*
         PAST   SEQ   ask-UP-REF-1PL.EXCL   OBJ   way   PREP
         sous-prefet
         sous-prefet
         'at that time we asked permission from the *sous-prefet*'

The clausal complement of the verb *ɗáwà* may be marked by the complementizer *kà zlày* and the comment clause marker *ná* and introduced as a *de re* complement, i.e. one that is not a request for an answer. This is one of the means to ask a question in an indirect way:

(2)   *sá-b*   *dá*   *ɗáwà-n-tà*   *dà*   *kághùnì*   *kà*
         arrive-OUT   PURP   ask-3-REF:SUBJ   PREP   2PL   SEQ
         zlày   *ná,*   *sá-ghà*   *ndígá*   *kàghùní*   *nà,*   *ká-'á*
         COMP   DEM   arrive-D:PVG   FROM   2PL   Q   COMP
         ǐ
         1SG
         'I came to ask you where you come from'

The general structure of a sentence with an interrogative *de dicto* complement is Complement clause Matrix clause. The interrogative clause xends in an appropriate interrogative marker, i.e. *rà* for yes/no questions and *nà* for specific questions. The interrogative particle may be followed

by the *de dicto* complementizer *ká*, which is followed by the subject of the matrix clause and then by the matrix verb. The third-person singular pronoun after the complementizer is *á*. The addressee, if any, occurs at the end of the matrix clause and is marked by the preposition *dà* 'from':

(3) *ìr-á-w*   *ná*   *nà dá*   *ká'-á*   *d̪áwà-n-tà*
     eye-GEN-who DEM   Q father COMP-3SG   ask-3-REF
     dà   *tsí*
     PREP   3SG
     ' "Whose eye is this, father?" he asked him.'

Recall that addressees of non-interrogative verbs, such as *mná* 'say', are coded by the associative preposition *ndá*. Since the complement interrogative clause has the same form as the simple interrogative clause, the discussion in the present chapter focuses on the interaction among the means of subordination, clausal order, and modality.

2. Yes/no interrogative complements

Complement questions concerning the truth of the proposition, like simple yes/no questions, are marked by the clause-final interrogative marker *rà* or *rì*. The complementizer *ká* follows the interrogative marker. The subject of the matrix clause follows the complementizer *ká*, even if there is an overt verb in the matrix clause:

(4) *ìná*   *vlì*   *xàdá* *rí* *grá*   *kú-lù*   *d̪áwà-ŋ-tà*   *yá*
     good place there Q friend COMP-UH ask-3-REF   DEM
     'One asked, "Is everything fine there, friend?" '

The verb *d̪áwá* 'ask' may be omitted, like other verbs of saying. The identity of the omitted verb is assured by the clausal order Complement Matrix and by the interrogative markers occuring at the end of the complement clause:

(5) *ìná*   *vlì*   *xàdá* *rí* *grá*   *kú-lù*
     good place there Q friend COMP-UH
     'One asks, "Is everything fine there, friend?" '

Rhetorical questions are formed by the marker *káy*, often realized as [*ké*], at the end of the sentence, i.e. at the end of the matrix clause when the order is Embedded Matrix. The rhetorical marker is inherently an inter-

jection, as evidenced by the fact that it also occurs in non-interrogative clauses, and also by the fact that it does not replace the interrogative marker *rà* but rather occurs with it:

(6)   *kwítìkw-í   ká-'á   r-káy*
        small-1SG   COMP-3SG   Q-INTERJ
        'does he think that I am small?'

3. Specific interrogative complements (wh-questions)

The formation of embedded specific interrogatives (wh-questions) consists of putting the interrogative clause in sentence-initial position. The embedded interrogative clause has the same structure as the simple interrogative clause. Specific interrogative complements may end in the low-tone particle *nà*. The matrix clause begins with the complementizer *ká*, followed by the subject of the matrix clause. The matrix clause thus has the same form as the matrix clause with a verb of saying, providing an additional piece of evidence that interrogative complements are in the domain *de dicto*.

3.1. Interrogative complements about human participants

The marker *wá* 'who' occurs in clause-initial, hence sentence-initial, position. When the interrogative *wá* has the function of the subject of the clause, it behaves like a subject in focus constructions. Aspect and tense markers follow the interrogative *wá*. The complement clause has the aspectual/tense system that codes pragmatically dependent clauses. The perfective aspect is marked by the suffix *tá* after the interrogative marker. Recall that the perfective aspect in contrastive focus constructions is also marked by the particle *tá*. The pronouns following the complementizer have low tone:

(7)   *wá   tá   s-ù   tá   ghzú   kí-'ì   dáwà-n-tà*
        who   COM   drink-SO   OBJ   beer   COMP-1SG ask-3-REF
        'I asked who drank beer'

(8)   *wá   tà   sá   ghzú   kí-'ì   tà   dáw-áy*
        who   IMPF   drink   beer   COMP-1SG IMPF   ask-1SG
        'I am asking who drinks beer'

(9)   wá   dzà'á   kátí-'í   nà   kí-'ì   dáwà-n-tà
       who   FUT   help-1SG   Q   COMP-1SG ask-3-REF
       'I asked who could help me'

Questions about a human object have also wá in clause-initial position. The grammatical function of wá is marked by the presence of the subject following the verb of the embedded clause:

(10)   wá   dzà-p-tsí   kí-'ì   dáwà-n-tà
       who   hit-OUT-3SG   COMP-1SG   ask-3-REF
       'I asked who he hit'

(11)   wá   mbá-ná-f-tsí   kí-'ì   dáwà-n-tà
       who   treat-DEM-UP-3SG COMP-1SG ask-3-REF
       'I asked who he cured'

Questions about the associative argument have the associative preposition ndá followed by interrogative wá:

(12)   sá-ghà   ndá-wá   kí-'ì   dáwà-n-tà
       arrive-D:PVG   ASSC-who   COMP-1SG ask-3-REF
       'I asked with whom he came'

Questions about the dative are formed through the preposition ngá 'FOR' followed by the interrogative wá:

(13)   kà   ngá   wá   sá-ghà-tsí   kí-'ì   dáwà-n-tà
       SEQ   FOR   whom   arrive-D:PVG-3SG COMP-1SG   ask-3-REF
       'I asked for whom he came'

Other arguments that are marked by prepositions in the indicative clause and in simple interrogative clauses are also marked by prepositions in embedded interrogative clauses:

(14)   dà-wá   sá-ghà-tsí   kí-'ì   dáwà-n-tà
       PREP-who   arrive-D:PVG-3SG   COMP-1SG   ask-3-REF
       'I asked to whom he came'

3.2. Interrogative complements about non-human participants

Interrogative complements about non-human participants are marked as in the indicative and matrix interrogative clauses. The complement clause may follow a backgrounded matrix clause or precede the matrix clause:

(15) ká-kà   dá   zlày   ná,   sárák-á   wú
      COMP-2SG FUT   COMP   DEM   stick-GEN   which thing
      kághá   sárák
      2SG   stick
      'you are a stick of what?'

The interrogative clause may be a complement of a non-interrogative verb of saying. The following example does not have a matrix clause verb, but the evidence that it was a non-interrogative verb that was omitted is provided by the fact that the addressee is coded by the associative preposition *ndá* rather than by the locative preposition *dà*:

(16) nə́   xgà-ní   mágə̀-glá-ghá-lù   kày   gùlí   kɗérí
      what   name-3SG do-again-2SG-UH   INTERJ   again Kderi
      ká   zwàn-à   lázgláftà   ndá   kɗérí
      COMP   children-GEN God   ASSC   Kderi
      ' "What have they done to you again, Kderi?" said the children of
      God'

The interrogative complement may be represented as direct speech, i.e. as a *de re* complement, by the complementizer *mántsá* 'like that' following the matrix clause:

(17) ká   gáwá   ndá   xə̀n   mántsá,   nə́   nà
      COMP   Gawa   ASSC   3PL   like that   what Q
      skwì   xáb-áf   kághúní   tà   xúl   ná   ɓá?
      thing   attach-UP 2PL   PREP   back   DEM   POL
      'Gawa asked them: what do you have on your back?'

The complementizer *mántsá* cannot be replaced by the sequence *kà zlày ná* in the preceding clause.

3.3. Interrogative complements about the place

The interrogative complement about place starts with the particle *gá* 'where'. The complement clause may follow the matrix clause or precede it. If the complement clause follows the matrix clause, the complementizer *mántsá* is used.

(18)   *ká xǝn   mántsá,   sí   ndí   gá   ká   ndá*
       COMP-3PL   like that PAST   toward   where   2SG   ASSC
       rvídîk
       night
       'They asked: "Where were you last night?"'

If the complement clause precedes the matrix clause, the complementizer *mántsá* cannot be used. Instead, the matrix clause begins with the complementizer *ká*:

(19)   *gá   kdíx-á-dá   nà   ká-'á   ndá   tsá*
       where   donkey-GEN-1SG   Q   COMP-3SG   ASSC   DEF
       mìndù-xà   yá
       man-PL   DEM
       '"Where is my donkey?" he asked them'

3.4. Interrogative complements about the time

The interrogative complement about time has the complement clause in sentence-initial position. The interrogative particle is *yàwú* 'when'.

(20)   *yàwú   dzà'á   hldrá-kà   tá   hlná   ká   íí*
       when   FUT   start-2SG   OBJ   work   COMP   1SG
       dáwà-n-tà   dà   mbítsá
       ask-3-REF   PREP   Mbitsa
       'I asked Mbitsa when he could start work'

(21)   *yàwú   hldrá-f-tà-ká   tá   hlná   ká   íí*
       when   start-UP-REF-2SG OBJ   work   COMP   1SG
       dáwà-n-tà   dà   mbítsá
       ask-3-REF   PREP   Mbitsa
       'I asked Mbitsa when he started work'

3.5. Interrogative complements about the possessor

Interrogative complements about the possessor have an interrogative possessive phrase with the structure Noun phrase Genitive-*wà* in clause-initial position. The marker *wà* is reduced to *w* in phrase-internal position. The complement clause ends in the interrogative particle *nà* and it precedes the matrix clause:

(22)   *sl-á-w*   *ná*   *nà*   *dá*   *ká*   *krì*   *klà-gá-f*
       leg-GEN-who   DEM   Q   father   COMP   dog   take-INN-UP
       tá   *slá*   *zwàn-à*   *pákáwá ghúvì*
       OBJ   leg   child:PL-GEN   hyena
       'Dog picked up a leg of Hyena's children and asked: "Whose leg is this, Father?"'

3.6. Interrogative complements about the reason

The scope of the interrogative is marked by one of the expressions that mark reason why questions in the simple clause, viz. *kàbgà wù* 'reason':

(23)   *kàbgà wú*   *ghùná-ghá-tì-í*   *tá*   *zwáŋ-á-dá*   *nà*
       why   sent-D:PVG-REF-1SG   OBJ   son-GEN-1SG   Q
       ká   *ráakú*   *dáwà-n-tà*   *dà*   *tsí*
       COMP   Raku   ask-3-REF   PREP   3SG
       'Raku asked him why I sent my son'

3.7. Interrogative complements about the manner

Interrogative complements about manner are sentence-initial and are preceded by the interrogative particle *wá* followed by the *de dicto* complementizer *ká*. Subject pronouns of the complement clause are suffixed to the complementizer. The complement clause may end in the question marker *nà*.

(24)   *wá*   *ká-kà*   *dà*   *tá*   *kwà*   *tá*   *ghán*
       how   COMP-2SG prepare   OBJ   calabash   PREP   head
       ká   *íí*   *dáwà-n-tà*   *dà*   *rákú*
       COMP   1SG   ask-3-REF   PREP   Raku
       'I asked Raku how she made her calabash'

(25)   wá   k-íyù   sá-ghà   dá   túrú   nà
        how   COMP-1SG arrive-D:PVG   PREP   Tourou   Q
        ká   rákú   dáwà-n-tà   dà   íí
        COMP Raku   ask-3-REF   PREP 1SG
        'Raku asked me how I came to Tourou'

When the subject of the complement clause is third-person singular, the consonant *k* of the complementizer *ká* becomes the syllabic coda of the interrogative *wá*. The third-person singular marker *á* is rearticulated as a separate syllable:

Perfective:

(26)   wá-k-'á   sá-ghà   dá   túr   nà
        how-COMP-3SG   arrive-D:PVG   PREP   Tourou   Q
        ká   ráakù   (dáwà-n-tà)   dà   íí
        COMP Raku   ask-3-REF   PREP 1SG
        'Raku asked me how he came to Tourou'

Imperfective:

(27)   wá-k-'á   tà   sá-ghà   dá   túr   nà
        how-COMP-3SG   IMPF   arrive-D:PVG   PREP   Tourou   Q
        ká   rákú   (dáwà-n-tà)   dà   íí
        COMP Raku   ask-3-REF   PREP 1SG
        'Raku asked me how he comes to Tourou'

Nominal subjects follow the complementizer as well:

(28)   wá   ká   mbitsa   sá-ghà   dá   túrú
        how   COMP Mbitsa   arrive-D:PVG   PREP   Tourou
        ká   ráakú   dáwà-n-tà   dà   íí
        COMP Raku   ask-3-REF   PREP 1SG
        'Raku asked me how Mbitsa came to Tourou'

(29)   wá   ká   mbitsa   gòmá-tà   nd-íí   ká   ráakú
        how   COMP Mbitsa   meet-REF   ASSC-1SG COMP Raku
        dáwà-n-tà
        ask-3-REF
        'Raku asked Mbitsa how he met me'

4. Non-propositional addressees

The term *non-propositional addressee* refers to an addressee who is not a participant in the proposition of the clause (cf. Frajzyngier 1989b) but rather a participant in the discourse in which the clause is uttered. The non-propositional addressee may be nominal or pronominal. A non-propositional addressee in Hdi is coded outside of the proposition and at the end of the clause. In the following example, the addressee *krì* 'dog' occurs after the interrogative marker and before the complementizer. It has high tone because it occurs in the interrogative clause:

(30)   *tà*   *tsgh-áy*   *tsgh-áy-ká*   *rí*   *krí*   *ká*
        IMPF   send-PO   send-PO-2SG   Q   dog   COMP
        pákáwá ghúvì ná
        hyena   DEM
        ' "Dog, are you sending them up?" said Hyena.'

The addressee may also be coded by the form *gá*, a variant of *grá* 'friend', which follows the specific interrogative marker *nà*. The resulting sequence is reduced in normal speech to *nə gá* (note the change of tone from low to high when *nà* becomes *nə*). The plural form of the non-propositional addressee is *gá-xà*, further supporting the hypothesis that *gá* is a nominal form. The coding of the addressee is independent of the coding of the subject of the clause:

(31)   *nə*   *tà*   *mág-ká*   *nə grá*
        what   IMPF   do-2SG   Q   friend
        'what are you doing?'

The addressee of the interrogative is independent of the subject of the clause:

(32)   *nə*   *tà*   *mág-xən*   *nə gá*
        what   IMPF   do-3PL   Q   friend
        'what are they doing?'

5. Conclusions

Interrogative complements are marked by the same markers as independent interrogative clauses. The matrix clause is marked by the complementizer *ká*, which provides evidence that interrogative clauses are con-

strued as complements of verbs of saying. Embedded questions about the truth of the proposition are marked by the clause-final particle *rà*. Specific questions are marked by clause-initial specific question words and the optional clause-final particle *nà*. Interrogative complements provide additional evidence for the proposed distinction between *de dicto* and *de re* complements. *De dicto* complements of the verb *ɗáwá* 'ask' precede the matrix clause, while *de re* complements of the same verb (requests for a thing or an action) follow the matrix clause.

Chapter 23

Complements of verbs of perception

1. Introduction

We devote this chapter to the complements of verbs *ṅghá* 'see' and *sná* 'hear, know'. Only one clausal order—Matrix clause-Complement clause—is allowed with these verbs. This constraint is consistent with the hypothesis that *de re* complements follow the matrix clause.

The relevant question for verbs of perception is the distinction between direct and indirect perception. There are three constructions coding evidential modalities with complements of verbs of perception. Direct perception is coded through the use of complementizers; nominalization of the complement clause; and matrix coding of the subject of the complement clause (sometimes called "subject-to-object raising"). Indirect perception is coded through several complementizers.

2. Direct perception

2.1. Complementizer kàwák

One means of encoding direct perception is through the structure *kàwák*-Subject pronoun(s). The form *kàwák* behaves similarly to the complementizer *ká*. We gloss *kàwák* as 'how' (all examples elicited):

(1) ṅghá   kàwák-íyù   sí   tà   vàlá   vlì
     look   how-1SG   PAST   IMPF   jump   place
     'look how I jumped'

(2) ṅghá   kàwák-á   sí   tà   vàlá   vlì
     look   how-3SG   PAST   PREP   jump   place
     'look how he jumped'

The third-person plural suffix *xàn* is added to the third-person singular pronoun rather than to the complementizer, resulting in the form *á-xàn*:

(3)   ńghá   kàwák-á-xən   sí   tà   vàlá   vlì
       look   how-3SG-3PL   PAST PREP jump   place
       'look how they jumped'

2.2. Nominalization

Direct perception of the event can be coded though the nominalization of the complement clause. The complement clause follows the matrix clause. The evidence for the nominalization of the complement clause is the fact that the subject pronouns are possessive and are preceded by the possessive marker á:

(4)   snà-n-snà   tá   dzà'á-dá
       hear-3-hear OBJ   go-1SG
       'he heard me go', 'he heard my departure'

(5)   ndá   sná-ŋní   tá   xùrgw-á-ní   gá   sərdák,
       STAT   hear-1PL.EXCL OBJ   roar-GEN-3SG   PREP   morning
       'we have heard his roar this morning'

(6)   ńghá-ńgh-íyù   tá   hlî'yá-ní
       see-see-1SG   OBJ   leave-3SG
       'I saw him go'

The nominalized clause may refer to events in the past or in the future:

(7)   snà-n-snà   tá   dzà'á-dá   kdá
       hear-3-hear OBJ   go-1SG   year
       'he knew about my departure last year'

If the verb of the complement clause is transitive and has no extensions, the possessive suffix is added to the verb stem after the potential object marker -áy:

(8)   snà-n-sn-í   tá   ghw-ày-tán   tá   ngúrldùŋ-á
       hear-3-hear-1SG   OBJ   slaughter-PO-3PL OBJ   neck-GEN
       hlà
       cow
       'I heard them slaughter cattle'

(9) snà-n-snà   tá   ks-áy-ɗá   tá   hlná   mù
     know-3-know   OBJ   stop-PO-1SG   OBJ   work   PREP
     vwàx
     field
     'he knows that I work in the field'

The role of the subject of the embedded clause is coded by the suffixes to the verb. If there is the potential object suffix -ay, the subject of the verb is controlling. If there is the absolutive suffix -kú, the subject of the embedded clause is affected:

(10) zì-á-n-zí-íyù   tá   drá-kú-á-ní
      smell-PART-3-1SG   OBJ   burn-ABS-GEN-3SG
      'I smelled it burn'

(11) snà-n-sn-íyù   tá   drá-kú-á-ní
      hear-3-hear-1SG   OBJ   burn-ABS-GEN-3SG
      'I heard it burning'

(12) snà-n-sn-íyù   tá   dr-áy-ní
      hear-3-hear-1SG   OBJ   burn-PO-3SG
      'I heard him burn [something]'

The complementizer ná may be used if direct perception is involved. This is the case when the subject is surprised by the event. Consider the following sentence where the complementizer nà is followed by the sequential marker kà:

(13) tà   ǹghə́-tsí   ná   kà   sá-ghà   ùvá
      IMPF   see-3SG   COMP   SEQ   arrive-D:PVG cat
      'he sees that Cat is coming!'

2.3. Matrix coding

The term *matrix* refers to the coding of the subject of the complement clause as the object of the matrix clause. The complement clause of a verb of perception may be nominalized to code direct perception. The nominalized clause is marked by the locative preposition *tà* and obligatorily receives an imperfective interpretation. The sentence has the structure: X [verb of perception] Y at Z, where Z is represented by the nominalized verb. For the third-person singular the object is unmarked:

(14)   *ndá*   *ngh-í*   *tà*   *xàní*
       STAT   see-1SG   PREP   sleep
       'I saw him/her sleep'

The logical subject of the complement proposition is marked as the object of the complement clause either through affixation or through the object-marking preposition *tá*. The first-person singular object can only be *í-xà*:

(15)   *ngh-ìxà-nghà*   *tà*   *dzà'á*
       see-1SG-see   IMPF   go
       'he saw me go'

The use of the movement-away (distal) extension with the object marker *d* gives a quite different meaning, viz. one with the subject of the matrix clause being also the subject of the embedded clause:

(16)   *ngh-ì-d-á-ghá-nghà*   *tà*   *dzà'á*
       see-AWAY-1SG-GO-D:GO-see   IMPF   go
       'while leaving he paid me a visit' (he was leaving)

If the object is marked by the preposition *tá*, the matrix verb in the perfective aspect must have the definite object marker *n*:

(17)   *nghà-n-nghà*   *tí'í*   *tà*   *dzà'á*
       see-3-see   OBJ-1SG   IMPF   go
       'he saw me go'

In the stative aspect the verb does not have the object marker:

(18)   *ndá*   *nghá*   *tá*   *í'í*   *tà*   *dzà'á*
       STAT   see   OBJ   1SG   IMPF   go
       'he saw me go'

In the imperfective aspect of the matrix clause, the verb must have the potential object marker *-áy*:

(19)   *tà*   *ngh-áy*   *tí-í*   *tà*   *dzà'á*
       IMPF   see-PO   OBJ-1SG   IMPF   go
       'he sees me go'

The subject of the complement clause cannot be coded in both the matrix and the embedded clauses:

(20)   **sn-ìxà-snà*   *tà*   *dzà'-í*
       hear-1SG-hear   IMPF   go-1SG
       for 'he heard me go'

(21)   **snà-n-sná*   *t-íí*   *tà*   *dzà'-í*
       hear-3-hear   OBJ-1SG   IMPF   go-1SG
       for 'he heard me go'

3. Coding indirect perception

Indirect perception is coded through the sequence *kà zlày* preceding the complement clause and the complementizer *ká-'á* following the complement clause. The complement clause must follow the verb of perception, like other *de re* complements. In a way, the structure codes direct perception of a statement, rather than than direct perception of an event:

(22)   *sná-ghá-sná*   *kà zlày*   *tà*   *dzà'-í*   *ká-'á*
       hear-D:PVG-hear   SEQ COMP   IMPF   go-1SG   COMP
       'he heard that I should go'

Without the complementizer *kà zlày*, the above sentence is ungrammatical:

(23)   **sná-ghà-snà*   *tà*   *dzà'á-íyù*   *ká-'á*
       hear-D:PVG-hear   IMPF   go-1SG   COMP
       for 'he heard that I should go'

The subject of the complement clause may be coded in the matrix clause even if the sentence contains a complementizer. But in this case the raised subject represents the subject of a verb of saying. Again the sequence *kà zlày* is an obligatory element:

(24)   *sn-ìxà-snà*   *kà*   *zlày*   *tà*   *dzà'-í*   *ká-'á*
       hear-1SG-hear   SEQ   COMP   IMPF   go-1SG   COMP
       'he heard me say that I should go'

The matrix clause may be backgrounded. This operation does not code modality but rather has a discourse function, setting the background for what follows. The backgrounding is realized through the use of the

demonstrative *ná*. The demonstrative must be preceded by the sequence *kà zlày*:

(25) *ndá   ńghá   kà   zlày   ná   mà   sígá*
      STAT   see   SEQ   COMP   DEM   PREP pot
      zwàn-á-ní   ká-'á
      child-GEN-3SG   COMP
      'he saw that his children were in the pot'

(26) *yáwà   mtá   tá   dá-ní   mà   mìndú   tà   kúm-ày*
      well   death PREP father-3SG PREP man   IMPF want-PO
      tá   màrà-n-tà   kà   zlày   ná   ndá   gl-íyù
      OBJ   show-3-REF   SEQ   COMP   COMP STAT   grow-1SG
      tàmá
      already
      'The death of the man's father would mean that I am already an
      adult.' (The referent here is unspecified human, which in posses
      sive constructions is coded by the form *mìndú* 'man')

The demonstrative *ná* may be followed by the expression *mbàď ká*, which otherwise marks temporal sequentiality. The use of this expression after the demonstrative *ná* may serve a temporal function as well, relating the proposition to a clause preceding the matrix clause of which it is a complement:

(27) *ndzďà-vá-tà   pákáwá ghúvì   tá   xvá   tà   ńghó-tsó*
      last-APPL-REF   hyena   PREP work   IMPF see-3SG
      ná   mbàď   ká   zíngá   kà   sá-ghà
      DEM   then   COMP Zinga   SEQ   arrive-D:PVG
      'Having worked for some time, he sees that Zinga is coming.'

(28) *kà   lá-ghá   vàzák   ndzďà-vá-tà   vàzák*
      SEQ   go-D:GO   rooster   remain-APPL-REF:SUBJ rooster
      tà   xvá   tà   ńghó-tsí   ná   kà   sá-ghá
      PREP work   IMPF see-3SG   DEM   SEQ   arrive-D:GO
      ùvá
      cat
      'Rooster came. After having done some work, he sees Cat com-
      ing.'

The *de dicto* complementizer *ká* also codes the modality of uncertainty:

(29) *ndá   sn-í   ká   tsá   mariage-xà   yá   tà*
    STAT   hear-1SG   COMP   DEF   marriage (Fr.)-PL   DEM   IMPF
    mággá-kú   gà   xdí   ká-xən   mándí   ɓángál-xà
    make-ABS   PREP   Hdi   COMP-3PL   like   marriage (Ful.)-PL
    yá
    DEM
    'I have heard that marriages are being made in Hdi.'

Compare the modality of certainty in which the complement clause is marked as object:

(30) *àmá   ná   sná-xən   tá   d-ày   góngàgóngà*
    but   DEM   know-3PL   OBJ   cook-PO   well (Ful.)
    wù
    NEG:Q
    'But they do not know how to cook very well.'

The complementizer *kà zlày* may also be used to mark indirect perception. The complementizers *ká-'á* and *kà zlày* may be combined in the same clause:

(31) *nghà-ná-tà-ní   kà   zlày   [ná]   zwáŋ   á*
    see-DEM-REF:SUBJ-3SG   SEQ   COMP   DEM   child   GEN
    dá   yà   ká-'á   nà
    1SG   DEM   COMP   DEM
    'Having seen that it was his child' (lit. 'this is my child')

4. Conclusions

The complement clause follows the matrix clause if the verb of the matrix clause is a verb of perception, providing additional evidence for the hypothesis that the *de dicto/de re* distinction in Hdi is coded by the clausal order. There are two types of modalities possible after verbs of perception: direct perception of the event and indirect perception of the event. Direct perception is coded through the complementizer *kàwák*, nominalization, and the matrix clause coding of the subject of the complement clause (subject-to-object raising). Indirect perception is coded through the *de dicto* complementizer *ká-'á* and by complementizer *kà zlày*, in connection with the background marker *ná*.

Chapter 24

Complements of volitional verbs

1. Introduction

There are at least two volitional verbs: *kúmà* and *ďvá*; The latter has a variant with a non-glottalized stop, *dvá*. Volitional complements are interesting because there are two possible clausal orders, matrix-complement and complement-matrix, and because some volitional complements involve matrix coding of the subject of the complement clause (subject-to-object raising), and complement coding of the subject of the matrix clause (subject lowering). In addition to the two volitional verbs, in this section we also describe the complements of the verb *kwál* 'refuse'.

In addition to the above issues the present chapter also deals with the coding of co-referentiality of subjects of the matrix and embedded clause and the coding of the modality of the complement clause.

2. Same-subject complements

If the complement clause follows the matrix clause, the complement clause is marked by the object-marking preposition *tá*. When the subject of the matrix clause is the same as the subject of the complement clause, the subject is overtly coded only once, either in the matrix or in the complement clause:

(1)	*kabgà*	*tà*	*kúm-ày-ì*	*tá*	*wàná-f-tá*	*ná*
	because	IMPF	want-PO-1SG	OBJ	build-UP-REF	DEM
	máhláká-ďá	*ná*				
	wall-1SG	DEM				

'because I want to build my wall here'

The verb of volition occurs with or without the potential object marker *-ay*, depending on the type of clause. In a pragmatically independent clause, as in the preceding example, the potential object marker does occur. Compare also the following example:

(2)   sí   tà   d'v-áy-ŋní   tá   hlí'í
       PAST PREP want-PO-1PL:EXCL   OBJ   leave
       'we wanted to leave'

In comment-on-focus constructions, the verb occurs in the root form and the subject pronouns are suffixed directly to the root:

(3)   àmá   ká   xámáyádzì   mántsá   ndá   mndú   tà
       but   COMP   Hamayadzi   like that   ASSC   man   IMPF
       kùm-í   tá   b-ì-d'í-f-tá   ná   mùxúlá-d'á
       want-1SG   OBJ   build-AWAY-1SG-UP-REF   DEM   wall-1SG
       ná,   ká-'á
       DEM   COMP-3SG
       'but Hamayadzi said, it is with the people that I want him to build
       me my wall here'

The root form also occurs in relative clauses:

(4)   skwì   tà   kúmì-yí   tá   mn-áy   xàdà   ná . . .
       thing   IMPF   want-1SG   OBJ   say-PO   here   DEM
       'what I want to say is that . . .'

In negative clauses, the subject form is suffixed directly to the verb root as well:

(5)   d'vì-'í   tá   dzà'á   dà   lèkól   wà
       want-1SG   OBJ   go   PREP   school (Fr.) NEG
       'I do not want to go to school'

3. Subject lowering

There are some complement clauses in which the subject of the matrix clause is coded in the complement clause rather than in the matrix clause. We call this phenomenon "subject lowering":

(6)   tà   d'vá   sá-ghá-xàn
       IMPF   want   arrive-D:PVG-3PL
       'they want to go'

(7)   tà   d'vá   hlí'í-xàn
       IMPF   want   leave-3PL
       'they want to leave'

(8)   *tà*   *d'vá*   *hlí'í-mú*
      IMPF   want   leave-1PL.INCL
      'we want to leave'

(9)   *tà*   *d'vá*   *xàn-íyù*
      IMPF   want   sleep-1SG
      'I want to sleep'

Subject lowering can occur also with transitive verbs of the complement clause. The subject pronoun occurs after the potential object marker *-áy*:

(10) *tà*   *d'vá*   *z-áy-xən*   *tá*   *d'àfá*
      IMPF   want   eat-PO-3PL   OBJ   food
      'they want to eat'

(11) *tà*   *d'vá*   *s-ày-xən*   *tá*   *ghzú*
      IMPF   want   drink-PO-3PL   OBJ   beer
      'they want to drink *bilbil*'

As an explanation for the phenomenon, we propose that the verb *d'vá* has a lowered subject when it functions as an auxiliary verb coding a hypothetical modality, something similar to "would" in English. Unfortunately, this must remain just a hypothesis, as we have no natural language data to support it.

4. Different subjects

If the subject of the matrix clause and the subject of the complement clause are different, the latter must be overtly coded. There are two possibilities for coding the subject of the complement clause. One is to code it in the complement clause, and the other is to code it as an object of the matrix clause. In Hdi, as in many other languages (cf. Frajzyngier 1996), the raised subject of a volitional complement codes a *realis* wish, i.e. a wish that the speaker knows can be realized. The non-raised subject codes an *irrealis* wish, i.e. a wish that the speaker knows cannot be realized. All instances of raised subjects in our texts involve *realis* wishes.

Because volitional verbs do not allow pronominal object suffixes, the raised subject is marked by the object-marking preposition *tá*:

(12) *kâ'-á   ndá   ùvá   mántsá   kàdəkədək   tà*
      COMP-3SG ASSC cat   COMP   please   IMPF
      kúm-ày-í   tá   kághá   ngá   dzà'á   dá   vàghú
      like-PO-1SG OBJ   2SG   FOR   go   PURP work
      mù   vwàx-á-ɗá   ká-'á   ndá   ùvá
      PREP   field-GEN-1SG COMP-3SG ASSC   cat
      'He told Cat: "I beg you to go and work in the field of my in-laws." '

Evidence that subject raising is an independent coding device is provided by the fact that it is not obligatory:

(13) *tà   kúm-ày-í   tá   vàghà-tà   ghá   mà*
      IMPF   like-PO-1SG OBJ   spend the day-REF 2SG   IN
      màrwà[14]
      Maroua
      'I would like you to spend a day in Maroua'

The complement clause may be nominalized, as evidenced by the fact that it takes possessive rather than verbal suffixes, preceded by the genitive marker:

(14) *tà   ɗv-áy   tá   hlí'-á-ɗá*
      IMPF   want-PO   OBJ   leave-GEN-1SG
      'he wants my departure'

(15) *sí   tà   ɗv-áy-xàn   tá   hlí'y-á-mú*
      PAST   IMPF   want-PO-3PL   OBJ   leave-GEN-1PL.INCL
      'they wanted us to leave' (lit. 'they wanted our leaving')

When the complement clause occurs in sentence-initial position, it, like any other fronted object, is not marked by the object-marking preposition *tá*. The focus function of the fronted noun phrase is coded by the dependent aspectual form:

(16) *hlí'yá-ɗá   tà   ɗvə-tsí*
      leave-GEN-1SG   IMPF   want-SO-3SG
      'he wants my departure'

5. Complements of the verb *kwálá* 'refuse'

The complement of the verb *kwálá* 'refuse' may be marked in two ways, depending on the type of clause in which the verb *kwálá* occurs. If the verb *kwálá* occurs in a pragmatically independent clause, the complement of the verb is marked by the object marker *tá*:

(17) *kwálá-ghú-kwál-í*   *tá*   *ldghá*   *céedì*
      refuse-D:PVG-refuse-1SG OBJ   receive   money (Ful.)
      'I refused to receive money'

(18) *kàbgà*   *wú*   *kwálá-úgh-tà-ká*   *tá*   *z-áy*
      because   Q   refuse-SO-REF-2SG   IMPF   eat-PO
      'why do you refuse to eat?'

In clauses with focused elements, whether interrogative or not, the complement of the verb *kwálà* is followed by the preposition *kùl* 'without', the same marker that codes the negative relative clause:

(19) *nə́*   *yà*   *kwál-ká*   *kùl*   *z-áy*
      what   COP   refuse-2SG   without   eat-PO
      'why are you not eating?'

(20) *ghzú*   *dzà'á*   *kwál-í*   *kùl*   *dʼv-áy*
      bilbil   FUT   refuse-1SG   without   like-PO
      'it is the beer that I do not like'

If a clause with the verb *kwálà* has the negative marker *wà*, the modality of the clause is affirmative:

(21) *kwálà-úgh-tà-á-lú*   *tá*   *klà-g-tá*   *ìmí*   *wà*
      refuse-SO-REF-NEG-UH   OBJ   take-INN-REF   water   NEG
      'one cannot refuse to bring water' (i.e., 'one should bring water')

The complement clause may be marked by the sequential marker *kà*:

(22) *kwálá-ú-tà-í*   *kà*   *hlíʼí*   *dà*   *lèkól*   *wà*
      refuse-SO-REF-1SG   SEQ   leave   PREP   school (Fr.)   NEG
      'I will not refuse to go to school'

6. Conclusions

Complements of volitional verbs distinguish between *realis* wishes, which are coded by subject-to-object raising, and *irrealis* wishes, which are characterized by the absence of raising. Complements of volitional verbs are also characterized by the phenomenon of subject lowering, whereby the subject of the matrix clause is marked only on the verb of the complement clause.

Complements of volitional verbs with the same subject have no complementizers, and the subject is coded only once, either in the matrix or the embedded clause. If the complement clause has a different subject from the matrix clause, the subject of the complement clause must be overtly coded and the complement clause is marked as an object by the form *tá*.

Chapter 25

Adverbial and adjunct clauses

1. Introduction

The term *adverbial clause* refers to a clause coding a specific semantic function. The term *adjunct clause* refers to a clause that can be added to any other clause, i.e. an element whose addition does not depend on the properties of the verb. The functions of the two types of clauses overlap. The means used to code adjunct clauses of time, purpose, manner, and reason as well as to code conditional clauses include: clausal order, tenseaspectual systems, subordinating particles, adverbs, prepositions, and the sequential marker *kà*. We begin with a discussion of temporal clauses.

2. Temporal sentences

There are several coding means whose function is specifically to code the temporal clause. These means are the use of the predicate with possessive subjects and the use of demonstratives, subordinating particles, and adverbs of time. In the following discussion, we use the term *protasis* for the antecedent event or temporal background event, and *apodosis* for the subsequent event or an event contemporaneous with the background event. Those terms do not imply any specific order of clauses within the sentence. In most temporal sentences, however, the protasis precedes the apodosis, but the reverse order is also possible.

2.1. The protasis clause

Temporal protasis clauses are coded by several means. One means involves the suppression of the rule of tone raising before nominal subjects, or to put it differently, tone lowering on the verb-final morpheme. The rule applies to the referential marker as well as to extensions, if any:

(1)   *ndzdà-vá-tà   ùvá   tà   xvá   tà   ǹghə-l*
last-APPL-REF cat   PREP   work   IMPF   see-UH
ná   kà   sá-ghá   krì
DEM   SEQ   arrive-D:PVG   dog
'When Cat had spent some time working on the field, one sees Dog coming.'

Cf.:

(2)   *kà   ndzɗà-vá-tá   ùvá   tà   xvá*
SEQ   stay-APPL-REF   cat   PREP   work
'and the cat spent some time working'

(3)   *xlyá-f-tà-tán   gà   zíngá   kà   lá-ú-xən   dà*
leave-UP-REF-3PL   PREP   Zinga   SEQ   go-SO-3PL   PREP
gwì'yán
elephant
'having left Zinga, they went to Elephant'

The fundamental means of coding the temporal protasis is through the nominalization of a clause. When this is the case, the subject is coded by possessive rather than verbal subject pronouns. Nominal subjects are also coded as possessors. The protasis clause has the form Verb-(Extensions) Possessive Subject. The verb occurs in the simple, i.e. non-reduplicated, form. No temporal particles of any kind have to be used:

(4)   *lá-mà   krì   dá   xàd-à   kà*
go-IN   dog   PREP   here-DEM   SEQ
hlà-ná-ghá-tá-tsí   t-úvá
find-DEM-D:PVG-REF-3SG   OBJ-cat
'When Dog entered there, he found Cat.'

(5)   *sá-bà   pákáwá ghúvì   kà   xvá*
arrive-OUT   hyena   SEQ   work
'Having come out [of the hibiscus], Hyena worked.'

(6)   *lá-m-à-ní   ndá   tà   zlàŋgwàɗák   ngá*
go-IN-GEN-3SG   ASSC   PREP   back entrance   NORM
lá-m-à-ní   hlà-ná-ghà-tà   zə'ál-á-tàn
go-IN-GEN-3SG   search-DEM-D:PVG-REF   husband-GEN-3PL
'Having entered through the back of the compound, she should find her husband.'

If the protasis clause has an object, the object occurs after the posses-sive subject:

(7)   *tà*   *xúl-á*   *ngà*   *tsá-f-tà-ní*   *tá*
         PREP   back-GEN   PREP   gather-UP-REF-3SG   OBJ
         mìndú-xà   *vàghú*   *mà*   *vwàx-á-d'á*   *ká-'á*
         man-PL   work   PREP   field-GEN-1SG   COMP-3SG
         'Having gathered people, he said, "There is work at my in-laws"'

The temporal protasis may also be marked as background information through the demonstratives *yá* or *ná* that follow the protasis clause:

(8)   *lá-bà*   *krì*   *yá*   *mbàd'*   *ká-'á*   *kà*
         go-OUT   dog   DEM   then   COMP-3SG   SEQ
         gùnà-ná-f-tá   *sígà*
         open-DEM-UP-REF   pot
         'When Dog₁ went, he₁ opened the pot.'

(9)   *ndá*   *kd'à-kw-á-ní*   *yá*   *ná*   *ndá*
         ASSC   finish-ABS-GEN-3SG   COP   COMP   ASSC
         sá-ghà-ní
         arrive-D:PVG-3SG
         'when that thing ended, he came'

The function of the demonstratives is to mark the comment clause, a phenomenon attested in other constructions in Hdi and in temporal and conditional apodosis clauses in other Chadic languages (cf. Frajzyngier 1996).

If the verb has the absolutive marker coding the affectedness of the subject, in additional to the nominal subject, a pronominal possessive pronoun is added to the verb:

(10)   *tà*   *wáwà-kú-á-ní*   *krì*
       IMPF   walk around-ABS-GEN-3SG   dog
       mbàd'   *ká*   *kà*   *nghà-dá-ghà-tà*   *ná*
       then   COMP   SEQ   look-ALL-D:PVG-REF   COMP
       tà   *d'g-áy*   *d'g-áy*   *tùrtúkw-á-ní*
       PREP   thresh-PO   thresh-PO   alone-GEN-3SG
       'When Dog was taking a walk he noticed that he [Hyena] was threshing alone.'

The third means of coding the temporal protasis clause is through the sequential marker *kà* and the dependent aspectual markers:

(11) *kà*   *lá-m*   *ùvá*   *hlà-ná-ghá-tá*   *vàzák*   *tá*
      SEQ   enter-IN   cat   find-DEM-D:GO-REF   rooster   COM
      dífà-ùgh-tà   *mà*   *tùghwázàk*
      hide-SO-REF   PREP   hibiscus
      'When Cat entered, he found Rooster hiding in the hibiscus.'

In temporal protasis clauses, the referential marker has low rather than high tone, a characteristic of the pragmatically dependent clause:

(12) *yáwà*   *hlyá-f-tà-ní*   *gàaa*,
      well (Hau.)   leave-UP-REF-SUBJ-3SG   PREP [hesitation]
      gà   *krì*   *kà*   *lá-úgh-tsí*   *dà*   *pákáwá ghúvì*
      PREP   dog   SEQ   go-D:SO-3SG   PREP   hyena
      'Well, when he left Dog, he went to Hyena.'

(13) *sá-ghà*   *ùvá*   *xvà-n-tà-ní*   *tá*
      arrive-D:PVG   cat   work-TENT-REF:SUBJ-3SG   OBJ
      xvá   *kítìkw . . .*
      work   a little
      'When Cat came, and after he worked a little . . . '

(14) *sá-ghà*   *ùvá*   *xvá-nà-n-tà*   *ùvá*
      arrive-D:PVG   cat   work-DEM-TENT-REF:SUBJ   cat
      tá   *xvá*   *kwítìk*
      OBJ   work   a little
      'after Cat came and worked a little for him'

The imperfective aspect in the temporal protasis clause is coded by the potential object form *-ay*, followed by possessive subject pronouns. The importance of this fact rests in the absence of the preposition *tà*, which codes the imperfective aspect in pragmatically independent clauses:

(15) *dg-áy-tán*   *tá*   *dgú*   *yá [dgí yà]*
      thresh-PO-3PL   OBJ   threshing   DEM
      mbàd   *ká*   *pákáwá ghúvì*   *kà*   *klà-á-tá*   *vàrà*
      then   COMP   hyena   SEQ   take-PART-REF   beans
      'While they were threshing Hyena took some beans'

(16)   *wùd-áy-tán*   *tá*   *wùdá*   *mántsá*   *ká*   *yàghí*
      fight-PO-3PL   OBJ   fight   like that   COMP   squirrel
      ndá-xən   *mántsá*   *mà*   *wùdə-kùn*   *tá*   *wùdá*
      ASSC-3PL   COMP   PROH   fight-2PL   OBJ   fight
      mà   *vwàx-á*   *mídz-á-dá*
      PREP   field-GEN   mother-in-law-GEN-1SG
      'While they were fighting like that, Squirrel told them, "Do not fight in the field of my mother-in-law."'

2.2. Overt coding of temporal priority and posteriority

The temporal priority of the protasis clause is coded by the verb *mág* 'do, make' followed by the unspecified human subject marker *lú*. This is a highly grammaticalized construction, as it is used with subjects in any person and number:

(17)   *màgú-lú*   *kà*   *dá*   *tsghá*   *tsá*   *vàrà*   *yá*   *tù*
      make-UH   SEQ   PURP   send   DEF   beans   DEM   PREP
      ùbú   *mbàd*   *ká*   *pákáwá* *ghúvì*   *kà*   *tx-áy*
      small granary   then   COMP   hyena   SEQ   expel-PO
      kà   *zlày*   *ná*   *z-ú-má*   *mbízà*   *kùrúkù*
      SEQ   COMP   COMP   eat-SO-1PL   bean dish   first
      'Before sending the beans up to the granary, Hyena said: "Let us first eat the bean dish." '

(18)   *màgú-lú*   *kà*   *dá*   *tsghá*   *tsá*   *vàrà*   *yá*   *tù*
      make-UH   SEQ   PURP   send   DEF   beans   DEM   PREP
      ùbú   *mbàd*   *ká-ì*   *kà*   *tx-áy*   *kà*
      small granary   then   COMP-1SG   SEQ   say-PO   SEQ
      zlày . . .
      COMP
      'Before sending the beans up into the granary, I said . . . '

Subordinating markers that code temporal protasis clauses include: *mándá* 'like, when/after, since', *mà fìtík-á* 'when', *àgə* 'before, *tàwà* 'when', and *tà xúl-á* 'after'. Most of these are complex constructions. For example, the expression *mà fìtík-á* is literally "at the time of".

The subordinator always occurs at the beginning of the temporal protasis clause. The subject of the temporal protasis clause follows the verb. When a clause begins with a temporal adverb, this adverb must be followed by a temporal apodosis marker, such as the sequential *kà* or the phrase *mbàd ká*, glossed as "then COMP":

(19)   *tántán mbàd̂ ká   kà   xgà-n-tá vàzák*
        first   then COMP-3SG SEQ   call-3-REF rooster
        'First he invited Rooster.'

(20)   *tántán mbád̂ ká   xən   kà   xgà-n-tá vàzák*
        first   then COMP 3PL   SEQ   call-3-REF rooster
        'first they invited Rooster'

(21)   *mà   sán-à   fìtík   mbàd̂ ká   yàghí*
        PREP one-GEN day   then COMP squirrel
        kà   xág-á   m̀ndú   ngá
        SEQ   invite:PL-GEN people   FOR
        dzà'á dá   vàghú mù   vwàx-á-ní
        go   PURP work   PREP field-GEN-3SG
        'One day Squirrel got into inviting people to work in the field of
        his in-laws.'

The evidence that *ká* is a complementizer is that other subjects, whether
nominal or pronominal, must follow *ká*, a characteristic of the
complementizer *ká* with verbs of saying.

Temporal posteriority is specifically coded by the expression *tà xúl-á* 'at
the back of', followed by the nominalized form of the verb:

(22)   *tà   xúl-á   hlyá-f-tà-ní   gà   ùvá   kà*
        PREP back-GEN leave-UP-REF-3SG PREP   cat   SEQ
        lá-úgh-tsí   xgà-n-tá   kr̀ì
        go-D:SO-3SG   call-3-REF dog
        'Having left Cat, he went to invite Dog.'

The particle *gúlí* 'not yet, still' occurs at the end of the protasis clause.
The particle is followed by the negative marker *wà*:

(23)   *z-ú-zá   xànà-n   á   tá   xàní   gúlí   wà*
        eat-SO-eat sleep-3   NEG   OBJ   sleep yet   NEG
        'he ate and he did not sleep yet'

The absence of *á*, the first component of the negative frame *á . . . wà*,
suggests that the function of *gúlí* overlaps with the function of *á*.

2.3. The temporal apodosis clause

The temporal apodosis clause can be marked by several means. One involves the form *mbàɗ* followed by the complementizer *ká* and by a nominal or pronominal subject. The subject pronouns following the complementizer are drawn from the independent set. This complex may be followed only by a sequential clause, marked by *kà*:

(24)   *mbàɗ ká   pákáwá ghúvì   kà   xvá-tá   xvá*
       then   COMP hyena   SEQ   farm-REF farm
       'Hyena had already farmed.'

(25)   **mbàɗ ká   pákáwá ghúvì   tà   xvá-tá   xvá*
       then   COMP hyena   IMPF farm-REF farm
       for 'and then Hyena has been farming.'

(26)   *dghàɗ-áy-tàn dghàɗ-áy-tàn mbàɗ ká   krì   kà*
       chew-PO-3PL chew-PO-3PL then   COMP dog   SEQ
       klà-gá-f-tá   ìr-á   zwáŋ-á   pákáwá ghúvì
       take-INN-UP-REF eye-GEN   child-GEN hyena
       'While they were chewing it, Dog picked up an eye of a child of Hyena.'

(27)   *mbàɗ ká'-á   kà   dg-áy*
       then   COMP-3SG SEQ   thresh-PO
       'and then he was threshing'

(28)   *mbàɗ ká   xɔ̀n   kà   dg-áy*
       then   COMP 3PL   SEQ   thresh-PO
       'And they were threshing.'

The other means is simply by the sequential marker *kà*:

(29)   *sá-bà   zíngá kà   xvá*
       arrive-OUT Zinga SEQ   work
       'When Zinga got out, he worked.'

(30)   *xwáyá-úgh-tà krì   kà   sá-ghá   pákáwú-ghúvì*
       run-SO-REF:SUBJ dog   SEQ   arrive-D:CO hyena
       'after Dog escaped, Hyena came'

If the first clause is not marked as a temporal protasis, then the sequential clause is not interpreted as an apodosis:

(31) *tò,   kà   hlǐyá-f-tá-tsí   gà   vàzák*
      well, SEQ   leave-UP-REF-3SG PREP rooster
      kà   lá-ghá-tsí   dà   ùvá [→wvá]
      SEQ   go-D:GO-3SG   PREP cat
      'Well, he left the Rooster's [household] and went to Cat.'

2.4. Subject coding in protasis and apodosis clauses

If the subject of the protasis clause is the same as the subject of the apodosis clause, the subject is coded only once, with the protasis clause:

(32) *kà   lá-ghá   vàzák   ndzdà-vá-tà   vàzák*
      SEQ   go-D:PVG   rooster remain-APPL-REF:SUBJ   rooster
      tà   xvá   tà   nghó-tsí   ná   kà   sá-ghá
      PREP   work   IMPF see-3SG   DEM   SEQ   arrive-D:GO
      ùvá
      cat
      'Rooster came. After having done some work, he sees the Cat coming.'

(33) *kdà-kw-á-tán   tà   ghwá   kzún   ngá*
      finish-ABS-GEN-3PL   IMPF   cut   grass   PURP
      tská-f-tà-tán   tá   zwáŋ-á   kwóbò   kítìkw
      gather-UP-REF:SUBJ-3PL OBJ   child-GEN   money   little
      'After they will have finished cutting grass, they will have put aside a little money'

If the subjects of the protasis clause and apodosis clause are different, the subject is overtly marked in both clauses:

(34) *tà   xúlá   klá-ùgh-tà-ní   kà   tsírá-tá*
      PREP   back   take-SO-REF:SUBJ-3SG   SEQ   defecate-REF
      zvàxw tá   tsírá-kú   tà   vghá   kàbgà   tá
      bat   OBJ   defecate-ABS   PREP body   because   COM
      xàdú   ntfáŋ   ngá   núwá-f-tá   mdùrá-ní   wà
      lack   glue   FOR   close-UP-REF   anus-3SG   NEG
      'When he took this, the bat defecated on himself because there was no glue to close his anus.'

3. Purpose clauses

Purpose clauses may be marked in three ways. One is through the preposition *ngá* 'FOR', the same that marks the nominal purpose in the simple sentence, preceding the purpose adjunct. The proposition expressing purpose follows the matrix clause. The verb of the complement proposition ends in a vowel *à* (low tone). If it is followed by an object, the object may, but does not have to be, marked by the object marker *tá*. The marker *ngá* codes the purpose clause in which the subject does not exercise control over the event:

(35) xàdú   kóbù   ngá   mágà   lèkól   wà
      lack   money   FOR   do   school   NEG
      'There was no money to go to school.'

The second means to code the purpose clause is with the subordinator *dá*. The function of the purpose marker *dá* is to code events when the subject exercises control over them:

(36) lá-m-là   dá   nghá-tà   mà   tùghwázàk
      go-IN-go   PURP   look-REF   PREP   hibiscus
      xàdí   yá   bá
      here   DEM   please
      'Go inside and look at [eat] what's in this hibiscus here.'

(37) ká-'á   ndá   ùvá   mántsá   kàdàkàdàk   tà
      COMP-3SG   ASSC   cat   COMP   please   IMPF
      kúm-ày-í   tá   kághá   ngá   dzà'á   dá   vàghú
      like-PO-1SG OBJ   2SG   FOR   go   PURP   work
      mù   vwàx-á-dá   ká-'á   ndá   ùvá
      PREP   field-GEN-1SG   COMP-3SG   ASSC   cat
      'He told Cat: "I beg you to go and work in the field of my in-laws." '

The preposition *ngá* cannot replace the preposition *dá*, nor can the preposition *dá* replace the preposition *ngá* in any of the above sentences.

The evidence for the proposed distinction between the two purpose markers is provided by a sentence where one can replace one marker by the other:

(38) *bìt   ná   gúlí   kà   hlf'yá-f-t-í   kà*
      year   DEM   again   SEQ   leave-UP-REF-1SG SEQ
      sá-x-í
      go-DOWN-1SG
      'This year again, I left [the village] and came down.'

      dá   ksá   hlná   ngá   mùtsá-f   tá   kóbò
      PURP catch work   FOR   have-UP   OBJ   money
      'I came to get a job in order to find money.'

The second line of this example may imply that the task of finding work has already started. Here one can replace the purpose marker *dá* by *ngá*. But if that is done, the sentence rules out the possibility that the task of finding the work has already started:

(39) *ngá   ksá   hlná   ngá   mùtsá-f   tá   kóbò*
      FOR   catch work   FOR   have-UP   OBJ   money
      'I came to find work in order to find money.'

In agreement with the proposed hypothesis, one cannot replace the marker *ngá* in the above example or in its original form by the marker *dá*, because having money does not involve the subject's control over the event. Nor can one replace the marker *ngá* in the following sentence:

(40) *ngá   ksá   hlná   yà   mà   lèkól   kədá   ghàlám*
      PREP   find   work   which in   school   year   dry
      'in order to do the school work next year'

The reason one cannot replace *ngá* by *dá* is that the expression means "attend school" (*fréquenter* in colloquial French in Cameroon) rather than "do school work".

(41) *kd'à-kw-á   fìtík-á   zl-í-n-tá   zwàn-ì*
      finish-ABS-GEN   time-GEN   free-AWAY-3-REF child-PL
      ngá   mbì'yá vghá   hlf'yá-f-tà-tán   kà   dzà'á
      FOR   rest   body   leave-UP-REF:SUBJ-3PL   SEQ   go
      dá   tská   kóbù
      PURP   search money
      'in the end [the beginning] for vacation they leave in search of money' (this is an attempt to render the notion of "vacation")

4. Manner clauses

The adverbial clause of manner is coded by the associative preposition *ndá*, followed by a nominalized verb:

(42)　*sá-wá　　ndá　　xwáyá*
　　　arrive-PL　ASSC　run
　　　'come running!' (plural addressee)

5. Reason clauses

Adverbial clauses of reason are marked in several ways. One is through the form *kàbgà* which may well be composed of the word *bgà* 'pile', preceded by the marker *kà*. Recall the sequence *kà bgà wú* marking interrogative reason clauses. The coding of sentential adverbs of reasons is the same as the coding of nominal adverbs of reason:

(43)　*dzà'á　phlá-phlá -xən　　tá　　m̀ndú, kàbgà　　xáxəŋ tá*
　　　FUT　　kill-kill-3PL　　　OBJ　man　　because　3PL　　COM
　　　dzà-tá　　dá-ďá　　ká　　gawa
　　　kill-REF　　father-1SG　COMP　Gawa
　　　' "they will kill us all, because they killed my father," said Gawa'

(44)　*tà　　xúlá　　klá-ù-tà-ní　　　　　　kà　　tsírá-tá*
　　　PREP　back　　take-SO-REF:SUBJ-3SG　SEQ　defecate-REF
　　　zvàxw tá　　tsírá-kú　　tà　　vghá　kàbgà
　　　bat　　OBJ　defecate-ABS　PREP　body　because
　　　tá　　xàďú　ntfàŋ　ngá　núwá-f　　tá　　mndrá-ní　wà
　　　COM　lack　glue　FOR　close-UP　OBJ　anus-3SG　NEG
　　　'When he took this, the bat defecated on himself because there was no glue to close his anus.'

The referential past time marker *sí* is also used as a clausal subordinator, following the sequential marker *kà* or *kàbgà* in clause-initial position:

(45)　*kà　　sí　　màl　　ndá　mà　　xàďík　ná　　vlì*
　　　SEQ　PAST　surface　ASSC　PREP　ground　DEM　space
　　　ká'-á　　yá
　　　COMP-3SG　DEM
　　　'Since he said that the space in the ground is larger [than in the sky]'

(46)   *kàbgà   sí   tà   mn-áy*
        because   PAST   IMPF   say-PO
        'Because one used to say'

6. The auxiliary verb *klá* 'take' and reason clauses

The auxiliary verb *klá* 'take' has the pronominal subjects suffixed to it. The verb *kəl* is most probably a reduced form of the verb *klá* 'to take'. The final vowel is deleted before the suffix is added, and the schwa is inserted to syllabify the disallowed consonant cluster [*kl* C] that would otherwise have resulted. The rest of the complement clause, viz. its main verb and complement, is preceded by the sequential marker *kà*.

(47)   *kàbgà   wú   kəl-ká   kà   xgà-n-tá   ùvá   kày*
        because   Q   take-2SG   SEQ   call-3-REF   catl   NTERJ
        'why did you invite Cat?'

The sequence *kəl . . . kà* may be omitted, but then the subject of the clause is suffixed to main verb:

(48)   *kàbgà   wú   xgà-n-ká   tá   ùvá   kày*
        because   Q   call-3-2SG   OBJ   cat   INTERJ
        'why did you invite Cat?'

The function of the verb *kəl* in such constructions is to mark an unexpected event or action. The fact that the event is unexpected is the reason for posing the question about its cause. Evidence for this hypothesis is provided by the use of the form *kəl*, which occurs when the speaker did not expect the event to happen and yet the event does happen:

(49)   *kàbgà   wú   kəl-ká   kà   xgà-n-tá*
        because   Q   take-2SG   SEQ   call-3-REF
        ùvá   kày   yàghá   ká   xgà-n-tá   ùvá
        cat   INTERJ   should not   2SG   call-3-REF   cat
        ká-ì [kí-í]   kày-ní   nɾà   kəl-ká   kà   xgà-n-tá
        COMP-1SG   Q-RHET   why   take-2SG   SEQ   call-3-REF
        ùvá   ká-'á   ndá   yàghí
        cat   COMP-3SG   ASSC   Squirrel
        ' "Why did you invite Cat, despite the fact that you should not invite Cat, as I told you?" he said to Squirrel.'

When the form *kɔl* is added to a present or future construction, the meaning carries an inceptive function:

(50) *kàbgá*   *wú*   *kɔl-ká*   *kà*   *xgá*   *ùvá*   *kày*
      because   Q   take-2SG   SEQ   invite   cat   INTERJ
      'why did you decide to invite Cat?' or 'why did you up and invite Cat?'

Cf.:

(51) *kàbgá*   *wú*   *xgà-ká*   *tá*   *ùvá*   *kày*
      because   Q   call-2SG   OBJ   cat   INTERJ
      'why do you invite Cat?'

7. Conditional clauses

There are two types of conditional protasis clauses: one that codes *realis* conditions, i.e. conditions that could be met, and the other, *irrealis* conditions. The two types of clauses differ in conditional markers and also in the coding of aspect.

7.1. Realis *conditionals*

In *realis* conditionals, the protasis clause is marked by the sequential marker *kà* in clause-initial position:

(52) *kà*   *tà*   *ɗv-áy*   *lázgláftà*
      SEQ   IMPF   like-PO   God
      'If God allows'

Cf.:

(53) *tà*   *ɗv-áy*   *lázgláftà*
      IMPF   like-PO   God
      'God allows'

Each of the first two clauses in the following example is coded as a temporal protasis, and the third clause is coded as a conditional protasis of a reported speech:

(54) *sá-ghà*   *krì,*   *ndzɗà-vá-tà*   *krì*   *tà*   *xvá,*
     arrive-D:PVG   dog   last-APPL-REF:SUBJ   dog   PREP   work
     kà   *ndá*   *xòrfá*   *ká*   *ná*   *lá-m-là*
     SEQ   ASSC   tiredness   2SG   DEM   go-IN-go
     nghá-tà   *mà*   *tùghwázàk*   *xàdí*   *yá*   *yá*
     see-REF:SUBJ PREP   hibiscus   here   DEM   DEM
     ká   *yàghí*   *ndá*   *krì*
     COMP   squirrel   ASSC   dog
     'When Dog came, after he had worked for some time, Squirrel
     said to Dog, "If you are tired, enter to see [something] in the hi-
     biscus here." '

Most often, the conditional protasis is coded as a background clause, marked by the demonstrative *ná*. There are no restrictions on aspect or tense in the conditional protasis clause; examples in the perfective, imperfective, and future have been recorded. The conditional protasis clause differs from the temporal protasis clause in that the perfective aspect in the conditional protasis is coded by reduplication of the verb.

(55) *kà*   *ndá*   *xòrfá*   *ká*   *ná*   *lá-m-là*   *nghá-tà*
     SEQ   ASSC   tiredness   2SG   DEM   go-IN-go   see-REF
     mà   *tùghwázàk*   *xàdí*   *yá*   *yà*
     PREP   hibiscus   here   DEM   DEM
     'If you are tired, enter to see what is in the hibiscus here'

(56) *à*   *kà*   *tà*   *dzà'á*   *kághá*   *ná*   *xgà-n-tì-í*
     INTERJ SEQ   IMPF   go   2SG   DEM   call-3-REF-1SG
     tá   *pákáwá ghúv*   *wà*   *ká*   *yàghí*   *ndá*   *tsí*
     OBJ   hyena   NEG   COMP   squirrel   ASSC   3SG
     ' "If you will go, I will not invite Hyena," Squirrel told him.'

(57) *kà*   *dz-ú-dzá*   *kághá*   *ná*   *xgà-n-tà-ì*
     COND   go-SO-go   2SG   DEM   call-3-REF-1SG
     tá   *gwì'yán*   *wà*   *ká-'á*
     OBJ   elephant   NEG   COMP-3SG
     ' "If you show up, I will not invite Elephant," he said.'

The conditional protasis may also be unmarked if the apodosis clause is marked:

(58) *lívín   á   ká   tá   kàpá   pálà   wù*
be able   NEG   2SG   OBJ   raise   stone   NEG
má   ndá   dzá   ká
then   STAT   hit   2SG
'if you cannot raise the stone you are whipped'

The third-person singular subject in protasis clauses is marked by the pronoun *tsì*. This is a characteristic shared by consecutive clauses, which are also marked by the sequential marker *kà*. The difference between the conditional protasis clause and the sequential clause is that the verb of the conditional protasis clause may be reduplicated even if the third-person singular subject is marked by the pronoun *tsì*:

(59) *kà   kd-í-n-kd'á-tsí   tá   hln-á-ní*
SEQ   finish-AWAY-3-finish-3SG   OBJ   work-GEN-3SG
lív-í-n-lívá   tá   mbì'yá vghá
be able-AWAY-3-be able   OBJ   rest   body
'if he has finished his work, he can rest'

The conditional protasis with prohibitive modality follows the apodosis clause and is marked by the form *dúŋà* in the third-person singular, and by *dúŋà* plus subject pronouns for other persons:

(60) *ká   ùvá   mántsá   má   sí   tà   dzá-'í*
COMP   cat   COMP   HYP   PAST   IMPF   go-1SG
mndán   ná   á   dúŋà   ká
but   DEM   COND   except   2SG
dá   xgà-n-tá   krì   ká   ùvá
FUT   call-3-REF   dog   COMP   cat
'Cat answered, "I might go, but on condition that you do not invite Dog."' (lit. 'but will you invite a dog?')

7.2. Irrealis *conditionals*

The *irrealis* conditional can be marked by two means: the hypothetical marker *má* and the past tense marker *sí*. The protasis clause has the independent imperfective aspect marked by the preposition *tà*. But, interestingly, the verb has the referential marker *ta* even if it does not have any extensions:

(61) *má*   *tà*   *kúm-tá-ká*   *tá*   *nzà-kú*   *mà*   *túrú . . .*
      HYP   IMPF   want-REF-2SG   OBJ   stay-ABS   PREP   Tourou
      'if you wanted to live in Tourou . . .'

The referential marker *ta* suffixed to the verb codes the conditional modality. If one were to replace it with the potential object marker *-áy*, the clause with the marker *má* would be simply hypothetical:

(62) *má*   *tà*   *kúm-ày-ká*   *tá*   *nzà-kú*   *mà*   *túrú*
      HYP   IMPF   want-PO-2SG   OBJ   stay-ABS   PREP   Tourou
      'you wanted to live in Tourou . . .' (but it did not happen)

Compare the *realis* conditional:

(63) *kà*   *tà*   *kúm-ày-ká*   *tá*   *nzà-kú*   *mà*   *túrú . . .*
      SEQ   IMPF   want-PO-2SG   OBJ   stay-ABS   PREP   Tourou
      'if you want to live in Tourou . . .'

The apodosis clause for *irrealis* wishes is also coded by the marker *má*:

(64) *má*   *tà*   *hlgà-f-tá-tsí*   *kdá*   *má*   *màmú*
      HYP   IMPF   plant-UP-REF-3SG   last year   HYP   exist
      skw-à   *z-áy*
      thing-GEN   eat-PO
      'had he planted last year, he would have had food'

8. The negative conditional mood

The hypothetical clause may be marked by rhetorical interrogative forms *á dún* or *sún*, glossed as "except", expressing the minimal condition(s) under which the hypothetical will become real:

(65) *á dún*   *ká*   *dá*   *sá-ghà*   *màxtsím*
      except   2SG   FUT   arrive-2SG   tomorrow
      'except do not come tomorrow'

(66) *sún*   *ká*   *dá*   *sá-ghà*   *màxtsím*
      except   2SG   FUT   arrive-2SG   tomorrow
      'except do not come tomorrow'

The protasis clause is in the future tense, marked through the periphrastic *dzà'á* or *dá*:

(67)
ká	*kàr*	*mántsá*	*má*	*tà*	*dzà-í*	*mndán*
COMP	dog	COMP	PREP	PREP	go-1SG	but

ná	*súŋà*	*ká*	*dá*	*xgà-n-tá*	*pákáwá ghúvì*,
DEM	except	2SG	FUT	call-3-REF	hyena

ká	*krì*
COMP	dog

'Dog replied, "I will go, on condition that you do not invite Hyena." '

(68)
má	*tà*	*dzà-'í*	*mndán*	*ná*	*dúŋà*	*ká*	*dzà'á*
HYP	IMPF	go-1SG	but	COMP	except	2SG	FUT

xgà-n-tá	*rvérí*	*ká*	*gwì'yán*	*ndá*	*yàghí*
call-3-REF	lion	COMP	elephant	ASSC	squirrel

'"I would go, on the condition that you did not invite Lion," Elephant said to Squirrel.'

9. Conclusions

In temporal clauses, the protasis clause usually precedes the apodosis clause, though the reverse order is also possible. One of the means of coding temporal protasis clauses is by use of nominalized clauses with possessive subjects. Protasis clauses may also be marked through the use of various subordinating particles and temporal adverbs. When such a clause is sentence-initial, the apodosis clause is marked by the sequential marker *kà*. The sequential marker can also function as the protasis marker in conditional clauses, which differ from other protasis clauses in having the perfective aspect coded by reduplication and the overt coding of the third-person singular subject through the marker *tsì*.

A number of particles code adverbial clauses of purpose, manner, and reason.

Chapter 26

Comparative constructions

1. Equal predicates

Our data include examples of equal comparative clauses with adjectival or verbal predicates. With both types of predicates the equal predicate structure has the form Predicate Target *mándá* Standard:

(1) *ndá   glá   mbítsá   mándá   pghìntà*
      ASSC   big   Mbitsa   like   Phinta
      'Mbitsa is as big as Phinta'

(2) *tà   mágá   hlə̀ná   mbítsá   mándá   pghìntà*
      IMPF do   work   Mbitsa   like   Phinta
      'Mbitsa works as well as Phinta'

(3) *mándá   xìyá   tà   ngh-í   tá   kághá*
      like   guinea corn   IMPF   see-1SG   OBJ   2SG
      'You are very beautiful' (lit. 'I see you like [I see] guinea corn')

2. Unequal predicates

To express an unequal comparison a sentence with an adjectival or verbal predicate starts with the property concept word *màl* 'big', followed by the demonstrative plural marker *ì*, and then by the target, which is the superior argument of the comparison. The standard, or inferior, is marked by the preposition *kà* 'like':

(4) *màl   ì   mbítsá   kà   pghìntà*
      big   ASSC.PL   Mbitsa   than   Phinta
      'Mbitsa is larger than Phinta'

(5) *màl   tsátsí   tà   mágá   hlə̀nà   kà   íí*
      big   3SG   IMPF   do   work   than   1SG
      'he works better than me'

(6)   *má   màl   xídʼákú   kà   mbrákú   ká-ʼá*
HYP   big   wisdom   SEQ   strength   COMP-3SG
'intelligence should surpass strength'

The grammaticalization of *màl* as a marker of an unequal predicate is at an early stage, as evidenced by the fact that different lexemes are used to express the notion "smaller":

(7)   *kiʼyá   mbítsá   kà   pghìntà*
small   Mbitsa   like   Phinta
'Mbitsa is smaller than Phinta'

Further evidence for the early stage of grammaticalization of *màl* lies in the fact that other adjectives may be used to express the notion expressed by *màl*:

(8)   *dǝrǝn   mbítsá   ká   pghìntà   mà   mágá   hlǝná*
surpass   Mbitsa   PREP   Phinta   PREP   do   work
'Mbitsa works better than Phinta'

In comparisons of size, Hdi sometimes uses the word *ghǝn* 'head' followed by the genitive marker. The order of elements in such clauses is: Predicate Target *tà ghǝn-à* Standard. The most interesting fact about these constructions is that when the standard is first or second person, the sequence *ghǝn-à*, realized as [ghǝŋà] 'head-GEN', is followed, not by the possessive form of the pronoun, but rather by the independent pronoun:

(9)   *sàgǝn   mbítsá   tà   ghǝŋ-à   pghìntà*
small   Mbitsa   PREP   head-GEN   Phinta
'Mbitsa is smaller than Phinta'

(10)   *màl   tsátsí   tà   ghǝŋ-à   íí*
big   3SG   PREP   head-GEN   1SG
'he is taller than me'

(11)   **màl   tsátsí   tà   ghǝŋ-à   dʼá*
big   3SG   PREP   head-GEN   1SG
for 'he is taller than me'

(12)   *màl   tsátsí   tà   ghǝŋ-à   kághá*
big   3SG   PREP   head-GEN   2SG
'he is taller than you'

Evidence that the word *ghɔ́n* 'head' has been grammaticalized as a component of the comparative construction is that it may be used for comparisons involving properties other than size:

(13) | *màl* | *mbítsá* | *tà* | *mágá* | *hlɔ̀ná* | *tà* | *ghɔ́n* | *ngá* |
|------|--------|------|--------|----------|------|--------|------|
| surpass | Mbitsa | PREP | do | work | PREP | head | FOR |

pghìntà
Phinta
'Mbitsa works better than Phinta' (lit. 'Mbitsa is better at work than Phinta')

3. Conclusions

In equal comparison constructions, the standard is marked by *mándá*, possibly a prepositional sequence *má ndá*. In unequal comparisons, the superior is marked by the adjective *màl* 'big' and the inferior by one of several other adjectives. The inferior cannot be marked by *màl*. The standard in an unequal comparison is marked by the preposition *kà* 'like' or by the lexeme *ghɔ́n* 'head', which forms a genitive, but not a possessive construction, with the standard.

Chapter 27

Texts

1. Proverbs and sayings

(1) *mándá xìyá*   *tà*   *ṅgh-í*   *tá*   *kághá*
      like   guinea corn   IMPF   see-1SG   OBJ   2SG
      'You are very beautiful.' (lit. 'I see you as guinea corn.')

(2) *mà*   *tágh-ká*   *tá*   *skál-á*   *m̀ndú*
      PROH   learn-2SG   OBJ   dance-GEN   man
      'Do not learn the dance of others' (interpretation: 'go your own
      way; do not imitate others.')

2. Dog and Hyena

The text is a folktale whose various versions may last several hours. The recorded version is about 30 minutes. We present here the first 40 sentences of the recorded text. The division into sentences was dictated by context, and each division was confirmed by language assistants. The main characters in the tale are anthropomorphized. There is never a definite article or a demonstrative added to the words *krì* 'dog' and *pákáwá ghúvì* 'hyena' (lit. 'leopard-GEN feces', spelled as *pákáwá ghúvì* and glossed in all sentences as 'hyena'.) In order to be faithful to this aspect of the text, we treat the two nouns as proper names, omitting articles from the English text and capitalizing the words Dog and Hyena.

(1) *ì*   *krì*   *ndá*   *pákáwá ghúvì*
      ASSC.PL   dog   ASSC   hyena
      'Dog and Hyena.'

(2) *mà   sán-à   fîtík   mbàɗ   ká   ì*
PREP other-GEN time   then   COMP   ASSC.PL
pákáwá ghúvì   kà   nzà-tà   ndá   krì
hyena   SEQ   stay-REF   ASSC   dog
'At one time, Hyena and Dog lived together.'

(3) *mbàɗ   ká   pákáwá ghúvì   kà   xvá-tá   xvá*
then   COMP   hyena   SEQ   farm-REF   farm
'Hyena had already farmed.' (i.e. finished farming)

(4) *mbàɗ   ká-xən   kà   ɗg-áy*
then   COMP-3PL   SEQ   thresh-PO
'And they were threshing.'

(5) *tà   wáwà-kú-á-ní   krì*
IMPF   walk around-ABS-GEN-3SG   dog
'When Dog was taking a walk'

mbàɗ   ká   kà   ńghà-dá-ghà-tà   ná
then   COMP   SEQ   look-ALL-D:PVG-REF   COMP
'he noticed that'

tà   ɗg-áy   ɗg-áy   tùrtúkw-á-ní
IMPF   thresh-PO   thresh-PO   alone-GEN-3SG
'he [Hyena] was threshing alone.'

Probably an error. The corrected clause is:

tà   ɗgə́   tùrtúkw-á-ní
PREP   thresh   alone-GEN-3SG
'he was threshing alone.'

(6) *mbàɗ   ká   krì   kà   lá-ghà   zlghà-n-tà*
then   COMP   dog   SEQ   go-D:PVG   help-3-REF
'Then Dog came and helped him.'

(7) *ɗg-áy-tán   tá   ɗgú   yá   [ɗgí   yà]*
thresh-PO-3PL   OBJ   threshing   DEM
'While they were threshing'

mbàɗ	*ká*	*pákáwá ghúvì*	*kà*	*klà-á-tá*		*vàrà*
then	COMP	hyena	SEQ	take-PART-REF		beans

'Hyena took some beans'

kà	*zlày*	*nà*	*kà*	*l-í*	*dà-tà*
SEQ	COMP	COMP	SEQ	go-1SG	cook-REF:SUBJ

ká-'á
COMP-3SG
'and said: "I have to go to cook these." ' '

(8)   *yyàw*   *ká*   *krì*
      OK   COMP   dog
      'Dog said: "OK" ' '

(9)   *mbàɗ*   *ká*   *krì*   *kà*   *ɗg-áy*
      then   COMP   dog   SEQ   thresh-PO
      'And Dog kept threshing.'

(10)   *lá-ghà*   *pákáwá ghúvì*   *kày*
      go-D:PVG   hyena   thus

kà	*lá-bì*	*díngà-f-tá*	*tsá*	*mbízá*	*yá*
SEQ	go-OUT	put on fire-UP-REF	DEF	bean dish	DEM

      'After Hyena₁ went, he₁ put fire under the bean dish on the fire.'

(11)   *mbàɗ*   *ká-'á*   *kà*   *xlá-f-tá*   *zwàn-à*   *krì*
      then   COMP-3SG   SEQ   gather-UP-REF   child.PL-GEN   dog
      'And then he gathered the children of Dog'

kà	*pgh-í-n-tà*	*gúɗúk*	*dìstá-ní*
SEQ	put-AWAY-3-REF	together	in-3SG

      'and put them all inside it [the beans].'

(12)   *mbàɗ*   *ká*   *kà*   *v-í-n-tá*   *vú*   *kî'yá*   *ndá*
      then   COMP   SEQ   light-AWAY-3-REF   fire   small   ASSC
      mìstá-ní
      under-3SG
      'Then he lit the fire under it.'

(13)   *mbàɗ*   *ká-xən*   *kà*   *ɗgú*
      then   COMP-3PL   SEQ   threshing
      'They kept threshing.'

(14) *kà*   *l-íyù*   *ngás-í-n-tá*   *vú*   *mìstá* *mbízà*
      SEQ   go-1SG   push in-AWAY-3-REF   fire   under   bean dish
      ká   *pákáw ghúvì*
      COMP   hyena
      ' "I have to push in the fire under the bean dish," said Hyena.'

(15) *á*   *kà*   *lá-b-l-íyù*   *kághá* *á*   *màlí* *rí*
      INTERJ   SEQ   go-OUT-go-1SG   2SG   NEG   older Q
      ' "Oh, shouldn't I go. Aren't you older?" '

      nzànzà   *kághá* *kà*   *lá-b-l-ìyù*   *ká*   *krì*
      remain   2SG   SEQ   go-OUT-go-1SG   COMP   dog
      ' "You stay, I should go," said Dog.' (low tone on *ì* in *ìyù*)

(16) *mbàd* *ká*   *krì*   *kà*   *lá-b-ì*
      then   COMP   dog   SEQ   go-OUT-REF
      'Then Dog went away.'

(17) *lá-ghà*   *pákáw ghúvì*   *kà*   *mná-n-tá*   *krì*
      go-D:PVG   hyena   SEQ   tell-3-REF   dog
      'And Hyena said to Dog,'

      yàgh-ká   *dá*   *ñgh-ú*   *dà*   *sígà*   *yá*
      should not-2SG   PURP   look-SO   PREP   pot   DEM
      ká-'á   *mná-ná-tà*
      COMP-3SG   tell-DEM-REF
      ' "Do not look inside the pot," he said to him.'

(18) *yáw*   *ká*   *krì*
      yes   COMP   dog
      'Dog agreed.'

(19) *lá-bà*   *krì*   *yá*   *mbàd*   *ká-'á*   *kà*
      go-OUT   dog   DEM   then   COMP-3SG   SEQ
      gùnà-ná-f-tá   *sígà*
      open-DEM-UP-REF   pot
      'When Dog₁ went, he₁ opened the pot.'

(20) *kà á* *ká-'á* *ńghà-dá-tà* *ná*
SEQ 3SG COMP-3SG look-ALL-REF COMP
zwàn-à-ní *mà* *sígà*
child:PL-GEN-3SG PREP pot
'And he saw that his children were in the pot.'

(21) *mbàď ká-'á* *kà* *w-í-g-í-n-tà* *kà*
then COMP-3SG SEQ take.PL-AWAY-INN-3-REF SEQ
lá-ghw-í *ďífà-ná-tá* *zwàn-à-ní*
go-D:SO-REF hide-3-REF child:PL-GEN-3SG
'He took his children out and hid them.'

(22) *mbàď ká-'á* *kà* *xlá-f-tá* *zwàn-à*
then COMP-3SG SEQ gather-UP-REF child:PL-GEN
pákáwá ghúvì *kày* *kà* *pghà-dá-tà* *dà*
hyena INTERJ SEQ put-ALL-REF PREP
sígà *kà* *v-ì-n-tá* *vú* *gúk* *mìstá-ní*
pot SEQ put-AWAY-3-REF fire a lot under-3SG
'And then he gathered the children of Hyena, put them in the pot,
and put a lot of fire under it.'

(23) *mbàď ká* *mbízà* *kà* *dà-tà* [→*kàddátà*] *mbúúlùk*
then COMP bean dish SEQ cook-REF very well
'Then the bean dish cooked very well.'

(24) *kďá-kú-á-tán* *tà* *víxá-p-tá* *vàrà* *mbàď*
finish-ABS-GEN-3PL PREP sift-OUT-REF beans then
ká-xən *kà* *wà-dá-p-tá* *tsá* *vàrà*
COMP-3PL SEQ take.PL-ALL-OUT-REF DEF beans
yá *dzághà*
DEM home
'When they finished sifting the beans, they brought them home.'

(25) *màgú-lú* *kà* *dá* *tsghá* *tsá* *vàrà* *yá* *tù*
make-UH SEQ PURP send DEF beans DEM PREP
ùbú *mbàď ká* *pákáwá ghúvì* *kà* *tx-áy*
small granary then COMP hyena SEQ expel-PO
kà *zlày* *ná* *z-ú-má* *mbízà* *kùrúkù*
SEQ COMP COMP eat-SO-1PL bean dish first
'Before sending the beans up to the granary, Hyena said: "Let us
first eat the bean dish." '

(26)   *mbàɗ ká-lù   kà   pghà-gá-p-tá   mbízà*
        then   COMP-UH   SEQ   pour-INN-OUT-REF   bean dish
        'Then, the bean dish was poured out and brought.'

(27)   *mbàɗ   ká   pákáwá ghúvì kày   kà   klà-á-tà*
        then   COMP   hyena   INTERJ   SEQ   take-PART-REF
        ngá   zwàn-à-ní
        FOR   child:PL-GEN-3SG
        'Hyena took some of it for his children.'

(28)   *mbàɗ   ká-xən   tàmá   kà   dghàɗ-áy*
        then   COMP-3PL finally SEQ   chew-PO
        'And now they are chewing it [the beans].'

(29)   *dghàɗ-áy-tàn   dghàɗ-áy-tàn   mbàɗ   ká   krì*
        chew-PO-3PL   chew-PO-3PL   then   COMP   dog
        kà   klà-gá-f-tá   ìr-á   zwáŋ-á   pákáwá ghúvì
        SEQ   take-INN-UP-REF   eye-GEN   child-GEN   hyena
        'While they were chewing it, Dog picked up an eye of a child of
        Hyena.'

(30)   *ìr-á-w   ná   nà dá   ká-'á   ɗáwà-n-tà*
        eye-GEN-who   DEM   Q father COMP-3SG   ask-3-REF
        dà   tsí
        PREP   3SG
        ' "Whose eye is this, Father?" he asked him.'

(31)   *ó   ìr-á   dzàgùlàmà   d-ú'ú   6á*
        INTERJ   eye-GEN   large white beans   father-1DU   HYP
        mántsá   ká   pákáwá ghúvì
        like that   COMP   hyena
        ' "Oh, perhaps this is the eye of the white beans of our father,"
        said Hyena.'

(32)   *zá á   zwáŋ tá   tsá   wà   ká-'á   kà*
        eat NEG   child OBJ   DEF   NEG   COMP-3SG   SEQ
        klá-úgh-tà   kà   f-ù-d-ú-tà
        take-D:SO-REF   SEQ   put-SO-ALL-EP-REF
        ' "Children do not eat it," he [Hyena] said [and he] took it and ate
        it up.' (lit. 'put it in himself')

(33) *sl-á-w*   *ná*   *nà*   *dá*   *ká*   *krì*
      leg-GEN-who   DEM   Q   father COMP dog
      klà-gá-f-tá   *slá*   *zwàn-à*   *pákáwá ghúvì*
      take-INN-UP-REF   leg   child:PL-GEN   hyena
      'Dog picked up a leg of Hyena's children and asked: "Whose leg is
      this, Father?" '

(34) *ó*   *ghàláká*   *ká*   *vàrà*   *d-ú'ú*   *ghàlyá tà*
      INTERJ   like this   COMP   beans   father-1DU   earlier IMPF
      yá-kú   *ndá*   *slá*   *ndá*   *slá*   [*tsá*]
      yield-ABS   ASSC   leg   ASSC   leg   DEM
      ' "Oh, it is like this: The beans of our forefathers earlier were born
      with feet." '

(35) *zá*   *á*   *zwàn-ì*   *tá*   *tsá*   *wà*   *ngá*   *mndэ́*   *rxà*
      eat   NEG   child-PL   OBJ   DEF   NEG   FOR   person   good
      tsá   *ká*   *á*   *kà*   *klá-úgh-tà*   *kà*
      DEF   COMP   3SG   SEQ   take-D:SO-REF   SEQ
      f-ù-dú-tà
      put-SO-ALL-REF
      ' "Children do not eat it. It is for respectable persons," he said, and
      he took it and ate it.'

(36) *mbàd*   *ká-xэn*   *tàmá*   *kà*   *hl-ì*   *tsghá*   *vàrà*
      then   COMP-3PL   finally   SEQ   go-REF   put up   beans
      tà   *ùbú*
      PREP   small granary
      'Finally they went to put the beans into the granary.'

(37) *tsghà-dá-f*   *xáxэn*   *tá*   *sànì*   *lá-ghà-ní*
      put up-ALL-UP   3PL   OBJ   one   go-D:PVG-3SG
      mbàd   *ká*   *kà*   *tsghà-dá-f-tá*   *sànì*   *zlíbí*
      then   COMP   SEQ   send-ALL-UP-REF   one   bag
      'After they sent one bag, then they sent another.'

(38) *ngà-ná-ngá*   *rí ngà-ná   á   wà   á   ná*
      hold-DEM-hold   Q hold-ADD NEG   NEG   3SG   DEM
      pákáwá ghúvì nà ká-'á   kà   zl-í-n-tá-tsí
      hyena   Q COMP-3SG SEQ   leave-AWAY-3-REF-3SG
      kà   ghwáyá-úgh-tà
      SEQ   run-SO-REF

' "Did Hyena grab it or not?" he thought. He left [a bag] and ran
away.' (Dog intends to run away. In order to do that he needs to
keep Hyena busy. One of the means to do so is to have Hyena try
to grab the bag with the beans.)

(39) *mbàɗ ká-'á   kà   xwáyá-úgh-tà lá-ghú   dà*
      then   COMP-3SG SEQ   run-SO-REF   go-D:SO   PREP
      zwán-ì
      child-PL

'Then he fled and he went to his children.'

(40) *tà   tsgh-áy   tsgh-áy-ká   rí   krí   ká*
      IMPF   send-PO   send-PO-2SG   Q   dog   COMP
      pákáwá ghúvì ná
      hyena   DEM

' "Dog, are you sending them up?" said Hyena.'

3. *ghùz-á dùxwál* 'Beer of Adulthood'

The ceremony *ghùz-á dùxwál* 'beer of adulthood' was characterized by one
of the language assistants as a "pre-initiation." The text contains some
borrowings from Fula (Ful.) and Hausa (Hau.). A few sentences show an
unintentional shift in subject from third to second and even to first person.
Guinea corn beer is the most important alcoholic drink, used daily as well
as for celebrations. Hence the shift from "beer" to "celebration".

(1)   *ghùz-á   dùxwál   tà   fúɗàkú   mándá*
      beer-GEN   adult   IMPF   begin (Ful.) when
      mtá-tá   dá-ní   mà   mìndú
      death-REF father-3SG PREP   man

'The beer of adulthood begins after the death of one's father.'

(2) *yáwà* *mtá* *tá* *dá-ní* *mà* *m̀ndú* *tà* *kúm-ày*
    well death PREP father-3SG PREP man IMPF want-PO
    tá *màrà-n-tà* *kà* *zlày* *ná* *ndá* *gl-íyù*
    OBJ show-3-REF SEQ COMP COMP STAT grow-1SG
    tàmá
    already
    'Well, the death of one's father would mean that he is already an adult.'

(3) *ngá* *dà-gá-ghà-tà*   *índà* *grá-xà-ní*
    NORM cook-INN-D:PVG-REF:SUBJ all friend-PL-3SG
    tá *ghzú*
    OBJ beer
    'All of his friends should cook beer and bring it there.'

(4) *ngá* *fá-m-tà*   *dàgà* *gítà* *ndá* *glá-ká*
    NORM put-IN-REF:SUBJ PREP today STAT grow-2SG
    'From that day on he should be considered an adult person.' (lit. 'from that day they will call you an adult person')

(5) *ngá* *zá* *tá* *tsá* *vàkú* *yá*
    NORM eat OBJ DEM year DEM
    'He should wait out this year.' (In the next sentence the speaker corrects himself.)

(5a) *ngá* *zá-tà-ní*   *tá* *vàkú* *xìs*
    NORM eat-REF-3SG OBJ year two
    'He should wait two years.'

(6) *tà* *xúl-á* *vàkú* *xìs* *ngá* *pgh-ày-ní* *tá*
    PREP back-GEN year two NORM pour·PO-3SG OBJ
    pghù
    libation
    'After two years he should pour a libation.' (i.e. proceed with the initiation)

(7) *pghù   tsá   yá   dzà'á   màrà-n-tá*
libation DEF   DEM   FUT   show-3-REF
snà-n-tà-ní   tá   dàdá-xà-ní   ndá   mtá   dàgà
know-3-REF-3SG   OBJ   father-PL-3SG   STAT   dead   PREP
dá-ní   dá-ní   mà   dá-ní   dá-ní   mà
father-3SG father-3SG PREP father-3SG father-3SG PREP
dá-ní   xá   gùlú
father-3SG until Gulu
'It is the libation that will make him know his dead ancestors, back
to Gulu.'

(8) *bàɗú   pghù   dzà'á   hlɪ̀'yá-f-hlɪ̀'yá   màràkw   kà*
day   initiation FUT   get up-UP-get up   woman   SEQ
lá-úgh-í   dà   lá   dá-ní
go-SO-REF PREP   COLL   father-3SG
'On the day of the initiation the wife will get up and go to her fam
ily.'

(9) *tà   skálú-lú   tá   skálú   gírvídɪ̀k*
IMPF dance-UH   OBJ   dance   night
'One dances all night, and . . .'

(10) *tà   xúl-á   skálú   dzà'á   sá-ghà-sá   màràkw*
PREP back-GEN dance   FUT   arrive-D:PVG-arrive   woman
gá   sàrɗàk   ndá   lá   dá-ní
PREP morning   ASSC   COLL   father-3SG
'After the dance the woman will come in the morning, together
with her parents.'

(11) *dzà'á   sá-ghà-sá-xàn   ndá   wùdà   ndá*
FUT   arrive-D:PVG-arrive-3PL   ASSC   big pot   ASSC
sígà
smaller pot
'They will come with a *wùdà* and *sígà* of beer.' (Another version
states that they bring beer and guinea corn.)

(12) *ngá   lá-mà-ní   ndá   tà*
NORM enter-IN-3SG   ASSC   PREP
zlàŋgwàɗák
back entrance broken in the wall
'She should enter through the back of the compound.'

(13)   *lá-m-à-ní*   *ndá*   *tà*   *zlàŋgwàɗák*
go-IN-GEN-3SG   ASSC   PREP   back entrance
ngá   *lá-m-à-ní*   *hlà-ná-ghà-tà*
NORM   go-IN-GEN-3SG   search-DEM-D:PVG-REF
zə'ál-á-tàn
husband-GEN-3PL
'Having entered through the back of the compound, she should find her husband.'

(14)   *ngá*   *sá-bà*   *tsá*   *mìndú*   *yá*   *jíbìl*   *ndá*
NORM   arrive-OUT   DEM   man   DEM   outdoors   ASSC
lgùt-á   *ngrá*   *tà*   *vghá-ní*
cloth-GEN   black   PREP   body-3SG
'The man should come out wearing black clothes.'

(15)   *ngá*   *xwáyá-ní*   *ndá*   *zèŋ-zèŋ*
NORM   run-3SG   ASSC   curved knife
'He should run around with a curved knife.'

(16)   *ngá*   *lá-bà*   *mìndú-xà*   *ksà-gá-ghà-tà*
NORM   go-OUT   man-PL   catch-INN-D:PVG-REF:SUBJ
'People should go out, catch him, and bring him back.'

4. skál-á hlà 'Festivity of the Bull'

(1)   *skál-á*   *hlà*   *tà*   *nw-áy-lú*   *tá*   *hlà*   *vàkú*
festivity-GEN   bull   IMPF   fatten-PO-UH   OBJ   bull   year
xìs   *kwá*   *xkən*
two   or   three
'Festivity of the bull: One fattens the bull for two or three years.'
(skálú-á hlà   →   [skálá hlà])

(2)   *ngá*   *skál-áy*   *ndá*   *lúwá*   *tá*   *ɓìdá*
NORM   dance-PO   ASSC   sky   PREP   small millet
déy déy   *fìtík-á*   *ìmí*
exactly (Ful.)   time-GEN   rain
'One should celebrate during the year of the millet, and only during the rainy season.' (Hdi plant guinea corn one year and millet and beans the next year. This practice allows regeneration of the soil and protection against weeds, especially strega.)

(3)   tà   xúl-á   skál-á   tá   hlà   màmú   tàlá
       PREP   back-GEN   dance-GEN   COM   bull   exist   exorcise
       zàŋwá
       demon
       'In addition to the festivity of the bull there is the exorcising of
       demons.'

(4)   tàlá   zàŋwá   tsá   yá   tá   màrà-n-tá
       exorcise demon   DEF   DEM   COM   show-3-REF
       xlə-g-í-n-tá   índà   ghwádàk-á   skwì   mà
       gather-INN-AWAY-3-REF   all   bad-GEN   thing   PREP
       xgá   yá
       home   DEM
       'It is tàlá zàŋwá that shows that one has chased away all the bad
       things from the compound.'

5. Work for Squirrel's In-laws

This story, told by Njidda Kassie Abel on July 1, 1994, is a traditional
Hdi folktale. In addition to the main character, Squirrel, it usually features
twelve other animals. In the version presented here, the order of events
departs from the usual order with respect to one character, Zinga, the
mythical king of animals. Zinga is considered a paragon of nastiness,
hence the expression "nasty as Zinga". The story contains a few mis-
takes that were corrected, either immediately or later, by the narrator or by
other speakers who collaborated in the analysis. We have retained both the
mistakes and the corrections because of their linguistic and literary in-
terest. The transcription is phonemic after the application of mor-
phophonological rules. A comma in the Hdi text indicates a pause.

(1)   mà   sán-à   fitík   mbàd   ká   yàghí
       PREP   one-GEN   day   then   COMP   squirrel
       kà   xág-á   mìndú   ngá
       SEQ   invite:PL-GEN   people   FOR
       dzà'á   dá   vàghú   mù   vwàx-á-ní
       go   PURP   work   PREP   field-GEN-3SG
       'One day Squirrel got into inviting people to work in the field of
       his in-laws.' (vàghá 'spend the day'; vàghú mà vwàx 'collective
       work in the field'. Can be done at the field of one's in-laws, as part
       of the payment for a wife. The preposition mà is realized as mù
       under the influence of the following labial consonant.)

(2)   tántán   mbàɗ   ká   kà   xgà-n-tá   vàzák
       first   then   COMP   SEQ   call-3-REF   rooster
       'First he invited Rooster.'

(3)   lá-ghà-ní   xgà-n-tá   vàzák   ká   vàzák   ndá
       go-D:PVG-3SG   call-3-REF   rooster   COMP   rooster   ASSC
       tsì   mántsá   tà   dzà-í   àmá   yàgh-ká
       3SG   COMP   IMPF   go-1SG   but   should not-2SG
       xgà-n-tá   ùvá   ká-'á
       call-3-REF   cat   COMP-3SG
       'When he went to invite Rooster, Rooster answered him, "I will
       go, but you should not invite Cat," he said.'

(4)   xgà-n-tì   í   tá   ùvá   wà   ká   yàghí
       call-3-REF   NEG:1SG   OBJ   cat   NEG   COMP   squirrel
       ' "I am not going to invite Cat," said Squirrel.'

(5)   tò,   kà   hlí'yá-f-tá-tsí   gà   vàzák
       well,   SEQ   leave-UP-REF-3SG   PREP   rooster
       kà   lá-ghá-tsí   dà   ùvá [→wvá]
       SEQ   go-D:GO-3SG   PREP   cat
       'Well, he left the Rooster's [household] and went to Cat.'

(6)   ká-'á   ndá   ùvá   mántsá   kàdàkàdàk   tà
       COMP-3SG   ASSC   cat   COMP   please   IMPF
       kúm-ày-í   tá   kághá   ngá   dzà'á   dá
       like-PO-1SG   OBJ   2SG   FOR   go   PURP
       vàghú   mù   vwàx-á-ɗá   ká-'á   ndá   ùvá
       work collectively   PREP   field-GEN-1SG   COMP-3SG   ASSC   cat
       'He said to Cat: "I beg you to go and work in the field of my in-
       laws."'

(7)   ká   ùvá   mántsá   má   sí   tà   dzá-í
       COMP   cat   COMP   HYP   PAST   IMPF   go-1SG
       mndán   ná á   dúŋ   à   ká   dá   xgà-n-tá
       but   DEM   COND   except   2SG   FUT   call-3-REF
       krì   ká   ùvá
       dog   COMP   cat
       'Cat answered, "I might go, but on condition that you do not invite
       Dog."' (lit. 'but will you invite a dog?')

(8)   *ká   yàghí   mántsá   xgà-n-tì   í   tá   krì*
       COMP squirrel COMP   call-3-REF NEG:1SG OBJ   dog
       wà   k'-á
       NEG   COMP-3SG
       'Squirrel answered that he would not invite Dog.'

(9)   *tà   xúl-á   hlyá-f-tà-ní   gà   ùvá*
       PREP   back-GEN leave-UP-REF-3SG   PREP   cat
       kà   lá-úgh-tsí   xgà-n-tá   krì
       SEQ   go-D:SO-3SG   call-3-REF dog
       'Having left Cat, he went to invite Dog.'

(10)   *k'á   ndá   krì   mántsá   vàghú   mù*
       COMP-3SG   ASSC   dog   COMP   collective work   PREP
       vwàx-á-ɗá   màxtsím   kàdàkàdàk   tà   kúm-ày-í
       field-GEN-1SG tomorrow   please   PREP   like-PO-1SG
       tá   kághá   ngá   dzà'á   dá   tsá   vàghú
       OBJ   2SG   FOR   go   PREP   DEF   collective work
       mù   vwàx-yá   ká-'á   ndá   krì
       PREP   field-DEM   COMP-3SG   ASSC   dog
       'He said to Dog: "Tomorrow there is work at my in-laws'. I would
       like you to go for this work."'

(11)   *ká   kàr   mántsá   má   tà   dzà-í   mndán*
       COMP   dog   COMP   PREP   PREP   go-1SG   but
       ná   súŋà   ká   dá   xgà-n-tá   pákáwá ghúvì,
       DEM   except   2SG   FUT   call-3-REF hyena
       ká   krì
       COMP   dog
       'Dog replied, "I will go, on condition that you do not invite
       Hyena."'

(12)   *à   kà   tà   dzà'á   kághá   nà*
       INTERJ   SEQ   IMPF   go   2SG   DEM
       xgà-n-tì   í   tá   pákáwá ghúvì
       call-3-REF:SUBJ   NEG:1SG   OBJ   hyena
       wà   ká   yàghí   ndá   tsì
       NEG   COMP   squirrel   ASSC   3SG
       ' "If you will go, I will not invite Hyena," Squirrel said to him.'

(13) *yáwà*   *hlyá-f-tá-ní*   *gàaa,*
well (Hau.)   leave-UP-REF-3SG PREP
gà   *krì*   *kà*   *lá-úgh-tsí*   *dà*   *pákáwá ghúvì*
PREP dog   SEQ   go-D:SO-3SG   PREP hyena
'Well, when he left Dog, he went to Hyena.'

(14) *ká'-á*   *ndá*   *pákáwá ghúvì*   *mántsá*   *kədəkdək*
COMP-3SG ASSC hyena   COMP   please
vàghú   *mù*   *vwàx-á-dá*   *màxtsím*
spend the day PREP field-GEN-1SG tomorrow
ká'-á   *ndá*   *pákáwá ghúvì*
COMP-3SG ASSC hyena
'He said to Hyena, "There is work tomorrow at my in-laws'."'

(15) *ká*   *pákáwá ghúvì* *mántsá* *má*   *sí*   *tà*   *dzà-í*
COMP hyena   COMP   HYP   PAST PREP go-1SG
dúŋà   *ká*   *dá*   *xgà-n-tá*   *zíngá* *ká*
except 2SG FUT call-3-REF zinga   COMP
pákáwá ghúvì *ndá*   *yàghí*
hyena   ASSC squirrel
' "I would like to go, on condition that you do not invite Zinga,"
Hyena said to Squirrel.' (*zíngá* 'mythical king of animals'. Here the
storyteller mistakenly introduces Zinga instead of some other
animal larger than the hyena but smaller than the next animal in the
hierarchy.)

(16) *ká*   *yàghí*   *mántsá* *xgà-n-tì-í*   *tá*
COMP squirrel COMP   call-3-REF:SUBJ-1SG   OBJ
zíngá *wà*   *kà*   *dz-ù-dzà*   *kághá* *ná*
zinga   NEG COND go-SO-go   2SG   DEM
xgà-n-tì-í   *tá*   *zíngá* *wà*
call-3-REF:SUBJ-1SG   OBJ   zinga   NEG
ká   *pákáwá ghúvì*
COMP hyena [error]
'Squirrel answered, "I will not invite Zinga. If you show up, I will
not invite Zinga, said Hyena [error].'

(17) *tà*   *xúl-á*   *hlyá-f-tà-ní*   *gà*   *zíngá* *gà*
PREP after-GEN leave-UP-REF-3SG PREP Zinga   PREP
pákáwá ghúvì *kà*   *lá-ghú-tsí*   *dà*   *zíngá*
hyena   SEQ go-D:SO-3SG   PREP   Zinga
'Having left Zinga [error] Hyena [correction], he went to Zinga.'

(18) *lá-ghà-ní*   *dà*   *zíngá*   *mántsá*   *lá-ghà-ní*
      go-D:PVG-3SG PREP Zinga COMP   go-D:PVG-3SG
      dà   *zíngá*   *mántsá,*   *kàdàkàdàk*   *tà*   *kúm-ày-í*
      PREP   Zinga   COMP   please   IMPF   like-PO-1SG
      tá   *kághá*   *ngá*   *dzà'á*   *dá*   *vàghú*   *mà*
      OBJ   2SG   FOR   go   PREP   work collectively PREP
      vwàx-á-dá   *ká*   *ndá*   *zinga*
      field-GEN-1SG COMP   ASSC   Zinga
      'Having arrived at Zinga's, he said, "Please, I would like you to
      come work in the field of my in-laws."'

(19) *má*   *tà*   *dzà-í*   *ná*   *dúŋà*   *ká*   *dá*
      HYP   IMPF   go-1SG   DEM   except 2SG   FUT
      xgà-n-tá   *gwì'yán*
      call-3-REF   elephant
      '"I will go, on the condition that you do not invite Elephant."'

(20) *xgà-n-tì-í*   *tá*   *gwì'yán*   *wà*   *kà*
      call-3-REF:SUBJ-1SG OBJ   elephant   NEG   COND
      dz-ú-dzá   *kághá*   *ná*   *xgà-n-tà-ì*
      go-SO-go   2SG   DEM   call-3-REF-1SG
      tá   *gwì'yán*   *wà*   *ká-'á*
      OBJ   elephant   NEG   COMP-3SG
      '"I will not invite Elephant. If you show up, I will not invite Ele
      phant," he said.'

(21) *hlyá-f-tà-ní*   *gà*   *zíngá*   *kà*   *lá-ghú-tsí*
      leave-UP-REF-3SG PREP   Zinga   SEQ   go-D:SO-3SG
      dà   *gwì'yán*
      PREP   elephant
      'Having left Zinga, he went to Elephant.'

(22) *lá-ghà-ní*   *dà*   *gwì'yán*   *kàdàkàdàk*   *tà*
      go-D:PVG-3SG   PREP   elephant   please   IMPF
      kúm-ày-í   *tá*   *kághá*   *ngá*   *dzà'á*   *dá*   *vàghú* *mà*
      like-PO-1SG   OBJ   2SG   FOR   go   PREP   work   PREP
      vwàx-á-dá   *ká*   *ndá*   *gwì'yán*
      field-GEN-1SG COMP   ASSC   elephant
      'Having arrived at Elephant's, he said, "Please, I would like you to
      come to work in the field of my in-laws."'

(23) *má tà dzà-'í mndán ná dúŋà ká dzà'á*
HYP IMPF go-1SG but COMP except 2SG FUT
xgà-n-tá rvérí ká gwì'yán ndá yàghí
call-3-REF lion COMP elephant ASSC squirrel
'"I would go, on the condition that you do not invite Lion," Ele phant said to Squirrel.'

(24) *xgà-n-tì-í tá rvér wà kà*
call-3-REF:SUBJ-1SG OBJ lion NEG SEQ
dz-ù-gù-dú-ɗú-s-dzá kághá nà
go-SO-INN-ALL-1SG-INV-go 2SG DEM
xgà-n-tì-í tá rvér wà ká-'á
call-3-REF:SUBJ-1SG OBJ lion NEG COMP-3SG
'"I will not invite Lion. If you come there for me, I will not invite Lion," he said.'

(25) *tà xúl-á xlyá-f-tà-ní gà gwì'yán*
PREP after leave-UP-REF-3SG PREP elephant
kà lá-ghú-tsí dà rvérí
SEQ go-D:SO-3SG PREP lion
'Having left elephant, he went to Lion.' (*rvérí* 'lion' and 'king', e.g. *rvèrá-ɗá* 'my king')

(26) *yáwà ká-'á ndá rvérí mántsá tà kúm-ày-í*
well COMP-3SG ASSC lion COMP IMPF like-PO-1SG
tá kághá ngá dzà'á dá vàghú
OBJ 2SG NORM go PREP collective work
mà vwàx-á-ɗá ká-'á.
PREP field-GEN-1SG COMP-3SG
'"Well," he said to Lion, "I would like you to come work in the field of my in-laws."'

(27) *tà dzà-'í ká rvérí*
IMPF go-1SG COMP lion
' "I will go," said Lion.'

(28)   tà   xúl-á   ngàtsá-f-tà-ní   tá   mìndə́-xà
       PREP   after-GEN gather-UP-REF-3SG   OBJ   man-PL
       vàghú   mà   vwàx-á-ɗá   ká'-á
       work collectively   PREP   field-GEN-1SG COMP-3SG
       kà   xlyá-f-tú-lú   kà   lá-ghú-lú
       SEQ   leave-UP-REF-UH   SEQ   go-D:SO-UH
       'Having gathered people, he said, "There is work at my in-laws'."
       Each got up and went.'

(29)   tíngìl   vàzák   tá   lá-ghà   tántán
       first   rooster   COM   go-D:PVG   first
       'It is Rooster that arrived first.'

(30)   kà   lá-ghá   vàzák   ndzɗà-vá-tà   vàzák
       SEQ   go-D:GO   rooster   remain-APPL-REF:SUBJ   rooster
       tà   xvá   tà   ǹghə́-tsí   ná   kà   sá-ghá
       PREP   work   IMPF   see-3SG   DEM   SEQ   arrive-D:GO
       ùvá
       cat
       'Rooster came. After having done some work, he sees Cat com
       ing.'

(31)   kàbgà   wú   kə́l-ká   kà   xgà-n-tá
       because   Q   take-2SG   SEQ   call-3-REF
       ùvá   kày   yàghá   ká   xgà-n-tá   ùvá
       cat   INTERJ   should not   2SG   call-3-REF   cat
       ká-ì [kí-í]   kày-ní   nìà   kə́l-ká   kà   xgà-n-tá
       COMP-1SG Q-RHET   why   take-2SG   SEQ   call-3-REF
       ùvá   ká-'á   ndá   yàghí
       cat   COMP-3SG ASSC   Squirrel
       '"Why did you invite Cat, despite the fact that you should not
       invite Cat, as I told you?" he said to Squirrel.'

(32)   àw,   lá-m-là   dá   ɗífà-ùgh-tà
       INTERJ   go-IN-go   PREP   hide-SO-REF
       xàdí   yà   ká-'á   ndá   vàzák
       here   DEM   COMP-3SG ASSC   rooster
       ' "Oh, go hide yourself here," he said to Rooster.'

(33)   kà   lá-ghú   vàzák   ɗífà-úgh-tà
       SEQ   go-D:SO   rooster   hide-SO-REF
       'And Rooster went and hid himself.'

(34) *sá-ghà*   *ùvá*   *xvà-n-tà*   *ùvá*   *tá*   *xvá*
arrive-D:PVG   cat   work-3-REF   cat   OBJ   work
kítìkw   *lá-m-là*   *dá*   *nghá-tà*   *mà*   *tùghwázàk*
a little   go-IN-go   PURP   look-REF   PREP   hibiscus
xàdí   *yà*   *ɓá*   *ká'-á*   *ndá*   *ùvá*
here   DEM   HYP   COMP-3M   ASSC   cat
'When Cat arrived, and after he worked little, he [Squirrel] said to him [Cat], "Enter in this hibiscus and eat what is inside."' (a saying that means: go and eat what is there)

(35) *kà*   *lá-m*   *ùvá*   *hlà-ná-ghá-tá*   *vàzák*   *tá*
SEQ   enter-IN   cat   find-DEM-D:GO-REF   rooster   COM
dífà-ùgh-tà   *mà*   *tùghwázàk*
hide-SO-REF   PREP   hibiscus
'When Cat entered, he found Rooster, who had hidden in the hibiscus.'

(36) *kà*   *ks-ú-tá*   *ùvá*   *tá*   *vàzák*
SEQ   touch-SO-REF   cat   OBJ   rooster
'And Cat devoured Rooster.'

(37) *ndzàdà-vá-tà*   *ùvá*   *tà*   *xvá*
last-APPL-REF   cat   PREP   work
tà   *nghá-l*   *ná*   *kà*   *sá-ghá*   *krì*
IMPF   see-UH   DEM   SEQ   arrive-D:GO   dog
'When Cat had spent some time working on the field, one sees Dog coming.'

(38) *ká*   *ùvá*   *mántsá*   *xgà*   *ngú-ká*   *tá*   *krì*
COMP   cat   COMP   invite   why-2SG   OBJ   dog
kày
INTERJ
'Cat says, "Why did you invite Dog?"'

(39) *wíyà*   *yàghá*   *ká*   *xgà-n-tá*   *kàr*
there   should not   2SG   call-3-REF   dog
kí-í   *kày*   *ká*   *ùvá*   *ndá*   *yàghí*
COMP-1SG   INTERJ   COMP   cat   ASSC   Squirrel
'"Didn't I tell you not to invite Dog?" Cat said to Squirrel.'

(40) *ká   yàghí   mántsá,   lá-m-là   dífà-ùgh-tà*
COMP Squirrel COMP   go-IN-go   hide-SO-REF
xàdí   yà   mà   tùghwázàk   xàdí   yà   bá
here   DEM   PREP   hibiscus   here   DEM   please
'Squirrel said, "Go hide yourself here in the hibiscus, here in this very place, won't you?"'

(41) *kà   lá-úgh-wí   ùvá   dífà-ù-tà*
SEQ   go-D:SO-REF   cat   hide-SO-REF
mà   tùghwázàk
PREP   hibiscus
'And Cat went and hid in the hibiscus.'

(42) *sá-ghà   krì,   ndzdà-vá-tà   krì   tà   xvá,*
arrive-D:PVG   dog   last-APPL-REF:SUBJ   dog   PREP   work
kà   ndá   xòrfá   ká   ná   lá-m-là
SEQ   ASSC   tiredness   2SG   DEM   go-IN-go
nghá-tà   mà   tùghwázàk   xàdí   yá   yá
see-REF:SUBJ   PREP   hibiscus   here   DEM   DEM
ká   yàghí   ndá   krì
COMP   squirrel   ASSC   dog
'When Dog came, after he had worked for some time, Squirrel said to Dog, "If you are tired, enter to see [something] in the hibiscus here."'

(43) *lá-mà   krì   dá   xàd-á   kà   hlà-ná-ghá-tá-tsí*
go-IN   dog   PREP   here-DEM   SEQ   find-DEM-D:GO-REF-3SG
t-'úvá
OBJ-cat
'When Dog entered there, he found Cat.'

(44) *kà   ks-ú-tá   krì   t-'úvá*
SEQ   touch-SO-REF   dog   OBJ-cat
'And Dog devoured Cat.'

(45) *ndzdà-vá-tà   krì   tà   xvá,   kà   sá-ghá*
last-APPL-REF   dog   PREP   work   SEQ   arrive-D:GO
pákáwá ghúvì
hyena
'After Dog had worked for some time, Hyena came.'

(46) *ká   krò   mántsá   xgà   ngú   ká   tá*
COMP dog   COMP   invite why   2SG   OBJ
pákáwá ghúvì kày   tàmá
hyena   INTERJ   after all
'Dog said, "Why did you invite Hyena [despite what I
told you]?"' (*tàmá* may be replaced by *gúlí*, with the same mean
ing.)

(47) *kà   dz-ú-dzá   kághá ná   xàd̃-í* [error]
SEQ   agree-SO-agree   2SG   DEM   NEG-1SG
dzà'á   xgá   pákáwá ghúvì ká-ká   kày,
go   call   hyena   COMP-2SG INTERJ
ká   krì   ndá   yàghí
COMP dog   ASSC   squirrel
' "If you accept, I will not invite Hyena,' you told me," Dog said
to Squirrel.'

(48) *ká   yàgh   mántsá   dífà-ú-dífà   xàdì   yà   ká*
COMP squirrel COMP   hide-SO-hide   here   DEM   COMP
yàghí
squirrel
'Squirrel said: "Hide yourself here."'

(49) *sá-ghà   pákáwá ghúvì ndzdà-vá-tà   pákáwá ghúvì*
arrive-D:PVG   hyena   last-APPL-REF hyena
tà   xvá   ká   yàghí   mántsá
PREP   work   COMP   squirrel COMP
lá-m-là   dá   xàd   yà   6á   màá   skwì
go-IN-go PREP   here   DEM   please exist thing
dzà'á   hlà-ná-ghá-tà-ká   xàdà   ká-'á
go   find-DEM-D:GO-REF:SUBJ-2SG   here   COMP-3SG
ndá   pákáwá ghúvì
ASSC   hyena
'When Hyena came, and after he worked for some time, Squirrel
said to him: "Go in there, won't you;, there is something that you
are going to find there," he told Hyena.'

(50) *lá-mà   pákáwá ghúvì dá   xàdà   mà   tùghwázàk*
go-IN   hyena   PREP   here   PREP hibiscus
kà   hlà-ná-ghá-tá-tsí   tá   krì
SEQ   find-DEM-D:GO-REF-3SG   OBJ   dog
'When Hyena entered the hibiscus, he found Dog.'

(51) *kà*   *ks-ú-tá*   *pákáwá ghúvì* *tá*   *krì*
      SEQ   touch-SO-REF   hyena   OBJ   dog
      'Hyena devoured Dog.'

(52) *sá-bà*   *pákáwá ghúvì* *kà*   *xvá*
      arrive-OUT   hyena   SEQ   work
      'Having come out [of the hibiscus], Hyena worked.'

(53) *ndzdà-vá-tà*   *pákáwá ghúvì*   *tá*   *xvá*
      last-APPL-REF   hyena   PREP   work
      tà   *nghá-tsá*   *nà*   *mbàd*   *ká*   *zíngá*   *kà*
      IMPF   see-3SG   DEM   then   COMP   Zinga   SEQ
      sá-ghà
      arrive-D:PVG
      'Having worked for some time, he sees that Zinga is coming.'

(54) *wá-'à*   *mándá* *zíngá* *xgà*   *ngú*   *ká*   *tá*   *zíngá*
      who-3SG   like   Zinga   invite   why   2SG   OBJ   Zinga
      kày   *yàghá-ká*   *xgà-n-tá*   *zíngá*   *k-í*
      INTERJ   should not-2SG   call-3-REF   Zinga   COMP-1SG
      kày   *ká-'á*   *ndá*   *yàghí*
      INTERJ   COMP-3SG   ASSC   squirrel
      '"Who appears there like Zinga? Why did you invite Zinga?
      Haven't I told you not to invite Zinga?" he said to Squirrel.'

(55) *ó,*   *lá-m-lá*   *dífà-ù-tà*   *xàd*   *yà*
      INTERJ   go-IN-go   hide-SO-REF   here   DEM
      ká   *yàghí*   *ndá*   *pákáwá ghúvì*
      COMP   squirrel   ASSC   hyena
      '"Oh, go hide yourself here," Squirrel said to Hyena.'

(56) *sá-ghà*   *zíngá* *xvà-n-tà*   *zíngá*   *tá*   *xvá*
      arrive-D:PVG   Zinga   work-3-REF   Zinga   OBJ   work
      lá-m-là   *nghá-tà*   *xàd*   *yà*   *bá*   *ká*   *yàghí*
      go-IN-go   look-REF   here   DEM   please   COMP   squirrel
      ndá   *zíngá*
      ASSC   Zinga
      'When Zinga arrived, he worked in the field. "Go look here,"
      Squirrel said to him.'

(57) *lá-mà zíngá dà   tùghwázàk   kà*
go-IN Zinga PREP hibiscus   SEQ
hlà-ná-ghá-tá-tsí   tá   pákáwá ghúvì kà
find-DEM-D:GO-REF-3SG   OBJ   hyena   SEQ
ks-ú-tá-tsí
touch-SO-REF-3SG
'When Zinga entered the hibiscus, he found Hyena and devoured him.'

(58) *sá-bà   zíngá kà   xvá*
arrive-OUT Zinga SEQ   work
'When Zinga got out, he worked.'

(59) *ndzdà-vá-tà   zíngá tà   ńghə-tsí   tà*
last-APPL-REF:SUBJ   Zinga PREP see-3SG   IMPF
sá-sà   gwì'yán
arrive-arrive   elephant
'After Zinga has spent some time, he sees Elephant coming.'

(60) *kàbgà-wú kəl-ká   kà   xgà-n-tá gwì'yán*
why   take-2SG   SEQ   call-3-REF elephant
kày   yàghá-ká   xgà-n-tá gwì'yán
INTERJ   should not-2SG   call-3-REF elephant
k'-í   ká   zíngá ndá   yàghí
COMP-1SG COMP zinga ASSC   squirrel
'"Why did you invite Elephant? I told you not to invite Elephant," Zinga said to Squirrel.'

(61) *lá-m-là   dífà-ù-tà   xàd   yà   ká   yàghí*
go-IN-go   hide-SO-REF   here   DEM   COMP squirrel
ndá   tsí
ASSC   3SG
'"Enter and hide yourself here," Squirrel said to him.'

(62)   *kà   sá-ghá   gwì'yán   ndzɗà-vá-tà*
      SEQ   arrive-D:GO   elephant   pass time-APPL-REF
    gwì'yán   tà   xvá
    elephant   PREP   work
    kà   ghùnà-dá-m-tá-tsí   hlà-ná-ghá-tá   zíngá
    SEQ   send-ALL-IN-REF-3SG   find-DEM-D:GO-REF   Zinga
    kà   ks-ú-tá   gwì'yán   tá   zíngá
    SEQ   touch-SO-REF   elephant   OBJ   Zinga
    'After Elephant came, after he had worked some, he [Squirrel] sent
    him inside. He [Elephant] found Zinga, and Elephant devoured
    Zinga.'

(63)   *sá-bà   gwì'yán   kà   ndzɗà-vá-tà*
    arrive-OUT   elephant   SEQ   pass time-APPL-REF
    tà   xvá   ɓáts   ndzɗà   gwì'yán   ná
    PREP   work   little time   spend time   elephant   DEM
    kà   ǹghɘ-tsí   tà   sá-ghá   rvérè
    SEQ   see-3SG   IMPF   arrive-D:GO   lion
    'After Elephant got out of the hibiscus and spent some time at
    work, Elephant sees Lion coming.'

(64)   *sá-ghà   rvér   ná   á   kàbgà   wú   kɘl-ká*
    arrive-D:PVG   lion   COMP   INTERJ   why   Q   take-2SG
    kà   xgà-n-tá   rvér   kày [kè]   wà á   sá-ghà
    SEQ   call-3-REF   lion   INTERJ   there   arrive-D:PVG
    rvér   tàmá   xgà   ngú   ká   tá   rvérè   yàgh
    lion   still   invite   why   2SG   OBJ   lion   should not
    ká   xgà-n-tá   rvér   kí-'í   kè [kày]   ká
    2SG   call-3-REF   lion   COMP-1SG   INTERJ   COMP
    gwì'yán
    elephant
    'While Lion was coming, Elephant said, "Why did you invite
    Lion, when I told you not to invite him? There is Lion coming,
    haven't I told you not to invite Lion?"'

(65)   *o,   lá-m-là   ɗífá-ù-tà   xàd   yá   mà*
    INTERJ   go-IN-go   hide-SO-REF   here   DEM   PREP
    tùghwázàk   ká   yàghí   ndí   tsí   /ndá   tsí/
    hibiscus   COMP   squirrel   ASSC   3SG
    '"Oh, go and hide yourself here in the hibiscus," Squirrel said to
    him.'

(66) *kà*   *lá-m-tsí*   *ďífà-ù-tà*
SEQ   go-IN-3SG   hide-SO-REF
'And he went in and hid himself.'

(67) *sá-ghà*   *rvérè*   *ndzďà-vá-tà*   *rvérè*   *tà*   *xvá*
arrive-D:PVG   lion   last-APPL-REF   lion   PREP   work
kà   *ghúnà-dá-m-tá*   *yàghí*   *tá*   *rvérè*
SEQ   send-ALL-IN-REF   squirrel   OBJ   lion
'When Lion arrived and had worked for some time, Squirrel sent Lion in.'

(68) *kà*   *lá-m*   *yàghí*   *hlà-n-á-tá*   *gwì'yán*
SEQ   go-IN   squirrel   find-3-PVG-REF   elephant
'[Lion] entered and found Elephant.' (should have been *rvérè*, not *yàghí*)

(69) *kà*   *wùdə́-xən*   *tá*   *wùdá*
SEQ   fight-3PL   OBJ   fight
'And they were fighting.'

(70) *lává-ná*   *á*   *yàghí*   *lává-ná*   *á*
be able-DEM   NEG   squirrel   be able-DEM   NEG
tá   *gì*   *ks-ú-tá*   *gwì'yán*   *wà*
COM   immediately   touch-SO-REF   elephant   NEG
'Squirrel [error: Lion] did not manage to devour Elephant immediately.'

(71) *lává-ná*   *á*   *rvèr*   *tá*   *gì*   *ks-ú*   *tá*
be able-3   NEG   lion   COM   immediately   touch-SO   OBJ
gwì'yán   *wà*   *kà*   *wdə́-xən*   *tá*   *wdá,*   *kà*
elephant   NEG   SEQ   fight-PL   OBJ   fight   SEQ
wdə́-xən   *tá*   *wdá,*   *kà*   *wdə́-xən*   *tá*   *wdá,*   *mù*
fight-PL   OBJ   fight   SEQ   fight-3PL   OBJ   fight   PREP
vwàx-á   *mídz-á*   *yàghí*
field-GEN   mother-in-law-GEN   Squirrel
'Lion does not manage to devour Elephant quickly. They fight, they fight, they fight, in the field of Squirrel's mother-in-law.'

(72) *wùd-áy-tán   tá   wùdá   mántsá   ká   yàghí*
      fight-PO-3PL   OBJ   fight   like that COMP   squirrel
      ndá-xən   mántsá   mà   wùdə-kùn tá   wùdá
      ASSC-3PL   COMP   PROH   fight-2PL OBJ   fight
      mà   vwàx-á   mídz-á-ɗá
      PREP   field-GEN mother-in-law-GEN-1SG
      'While they were fighting like that, Squirrel said to them, "Do not
      fight in the field of my mother-in-law."'

(73) *gàvà-dá-p-wá-gàvà   tà   hlərpú ká-'á*
      move-ALL-OUT-PL-move   PREP   side   COMP-3SG
      àsé (Hau.)   *lá-p-là   tá   vú   mà   xàɗík* [error]
      while   dig-OUT-dig   OBJ   fire   PREP   ground
      tá   vəl   mà   xàɗík   kà   và-m-tá   vú
      OBJ   place   PREP   ground   SEQ   light-IN-REF   fire
      'He said, "Move to the side," while he dug up the hole in the
      ground and lit the fire'

(74) *kà   gàvà-dá-p-tá-xən*   [*kà yarp* (Ful.)]
      SEQ   move-ALL-OUT-REF-3PL   [error]
      kà   gàvà-dá-ná-p-tá-tsí   tá   xən*
      SEQ   move-ALL-DEM-OUT-REF-3SG   OBJ   3PL
      kà   gàvà-dá-ná-p-tá-xən   hár   kà*
      SEQ   move-ALL-DEM-OUT-REF-3PL   until (Hau.)   SEQ
      lá-b-ì   tà   ghəŋ-á   tsá   và   tá   vú
      go-OUT-REF   PREP   top-GEN   DEM   light   OBJ   fire
      mà   xàɗík   yá   kà   dɗà-dá-tá-xən
      PREP   ground   DEM   SEQ   fall-ALL-REF-3PL
      'They moved, he pushed them, he pushed them, they moved to the
      place where he had lit the fire in the ground, and they fell in.'

(75) *dàgà   rvérè,   dàgà   gwì'yán   kà*
      CONJ (Hau.)   lion   CONJ (Hau.)   elephant   SEQ
      dɗà-dá-tá-xən   dà   vú   mà   xàɗík
      fall-ALL-REF-3PL   PREP   fire   PREP   ground
      'Lion and Elephant fell into the fire in the ground.'

(76) kà   tsùà-gá-f-tá-tsí   tàa,   tàa,   tàa,   tá
      SEQ   pull-INN-UP-REF-3SG   OBJ   OBJ   OBJ   OBJ
      rvérè   kà   xná-tà   kà   xútá   ngá   dzà'á
      lion   SEQ   skin-REF   as   hide   FOR   go
      skál-á-ní
      dance-GEN-3SG
      'He [Squirrel] pulled up Lion and slaughtered it for its skin, so that
      he could go to the dance with [it (the skin)].'

(77) mántsá   yá   ká   tsá   púrkútú ndzúm-ní yá
      COMP   DEM   COMP   DEM   story-3M   DEM
      kúd-ú-tà   ghàlyá mà   tàbí   ì   yàghí
      finish-SO-REF   earlier IN   between   DEM.PL   squirrel
      tá   xágá   mìndú ngá   dzà'á   vàgh   mù
      COM   invite:PL   people FOR   go   common work   PREP
      vwàx-á   mídz-á-ní
      field-GEN   mother-in-law-GEN-3SG
      'It is like that, that this story finished a long time ago between
      Squirrel and the people he invited to work in the field of his
      mother-in-law.'

(78) kdà-kú-á-n   tsá   xàdà
      finish-ABS-GEN-3SG   DEF   here
      'It ends here.'

(79) hládá-hlád-íyù
      stop-stop-1SG
      'I stopped.'

6. Conversation between two speakers

(1)   vàghà-vàghá-ká   rà
      spend the day-spend the day-2SG Q
      'did you pass the day well?' (a greeting in the afternoon/evening.
      The high tone on the subject pronoun codes the interrogative
      modality.)

(2)   vàghà-vàgh-í   pràfé
      spend the day-spend the day-1SG Prafé
      'I passed the day well, Prafé'

(3) *kí vlì   sí   lá-lá-ká   dá xdí*
     [Error]   PAST go down-go down-2SG   to Hdi
     k-úl   ná   tà   dghwáná   vlì   gà   xdí
     COMP-UH DEM   IMPF be well   area   PREP Hdi
     'I was told that you went to Hdi. Is Hdi OK?'

(4) *tá   dghwáná-lú   ndá   náná*
     IMPF   be well-UH   PREP   now
     bá   ìmí   yá   yà   kùl   xàdú   sá-ghà
     except   water DEM   COP   which:NEG   lack   arrive-D:PVG
     'They are OK, except for rains that do not come.'

(5) *xádʼ   ìm   gà xdí   wù   kó*
     NEG   water   in Hdi   NEG   Q (Hau.)
     'So, there are no rains in Hdi?'

(6) *xàdú   ìmí   wà*   → [xàdʼ-ím-ú wà]
     lack   water NEG
     'There are no rains.'

(7) *wà   káx* [error]   *àmá   hlə̀gà-f-hlə̀gá-xə̀n   tá*
     how   2SG   but   plant-UP-plant-3PL   OBJ
     hlə̀gə̀   ré   àrí   hlə̀gà-f   á   wà   xə̀n
     plant   Q   or   plant-UP   NEG   NEG   3PL
     'But did they plant or didn't they?'

(8) *hlə̀gà-f-hlə̀gá-xə̀n   tá   hlə̀gú   àmá   dîyá-f   á*
     plant-UP-plant-3PL   OBJ   plant   but   germinate-UP   NEG
     xìyá   wù
     corn   NEG
     'They planted, but the corn did not germinate.'

(9) *dîyá-f   á   wú*
     germinate-UP   NEG   NEG
     'It did not germinate?' (high tone on *wú* as marker of interrogative)

(10) *fìtík   dîyá-f   á   w . . .*   [incomprehensible]
     time   germinate-UP   NEG   NEG
     'since it did not germinate . . .'

(11) *díyá-f-díyá-tsí*   *yá*   *ná*   *àmá*   *tà*
germinate-UP-germinate-3SG   DEM   DEM   but   IMPF
ghúálá-kú   *ghúálá-kú*
dry-ABS   dry-ABS
'It has germinated; however, it dries up'

(12) *tà*   *ghúálá-kú*   *é*
IMPF   dry-ABS   eh
'So it dries up?'

(13) *kí*   *gól*   *míntghà*   *tà*   *dghwáná*
how   people (Mafa)   compound   IMPF   be well
mà-má   *rkè*
mother-1PL.INCL   Q
'And how are things at home? Is your mother well?'

(14) *ndá*   *sn-í*   *ká*   *tsá*   *marriage-xà*   *yá*   *tà*
STAT   hear-1SG   COMP   DEF   marriage (Fr.)-PL   DEM   IMPF
mággá-kú   *gà*   *xdí*   *ká-xən*   *mándí*   *ɓángál-xà*
make-ABS   PREP   Hdi   COMP-3PL   like   marriage (Ful.)-PL
yá
DEM
'I have heard that marriages are being made in Hdi.'

(15) *tà*   *mággá-kú*   *á*   *tsá*   *wà*
IMPF   do-ABS   NEG   DEF   NEG
'It is being done, isn't it?'

(16) *índà*   *dimanche*   *ná*   *màmú*   *marriage*   *ndáná*
every   Sunday (Fr.) COMP   exist   marriage   now
'Every Sunday there is a marriage now.'

(17) *índà*   *dimanche*   *tà*   *mágá-xən*
every   Sunday   IMPF   do-3PL
'They do it every Sunday?'

(18) *ạ*
'Yes.'

(19)   *xádú-lú   tà   mág-áy   mándá tsá   tà   zlày*
NEG-UH   IMPF   do-PO   like   DEF   PREP   before
bàdú   lúmá   gòzú   lúmá   gòz   yá-w
day   market   Gozu   market   Gozu   DEM-NEG
'It is not done as before on Wednesdays?' (Wednesday = market day at Gosi in Nigeria)

(20)   *tà   mág-áy-xàn   àmá   ndá   mà   nìžéryà   tà*
IMPF   do-PO-3PL   but   ASSC   IN   Nigeria   IMPF
mágú-lú   bàɗ   tsá
do-UH   day   DEF
'They do it, but it is in Nigeria that they do it on those specific days.'

(21)   *ndá   mà   nìžéryá*
ASSC   IN   Nigeria:Q
'In Nigeria?'

(22)   *ạ̀à*
'Yes'

(23)   *tò,   lá-lá-ká   ndá   gì*
O.K.   go-go-2SG   to   compound (Mafa)
íŋ   rí
1PL.EXCL   Q
'Did you go to our place?'

à   rí snà   wá   ká   tá   kòbàrà   gwál
or   Q know   NEG   2SG   OBJ   news (Ful.)   people
gì   íŋnì   ná
compound   1PL.EXCL   Q
'Do you know any news about people from our compound?'

(24)   *ɓxà-dá-gh-íyù   tví   tsá   wà*
arrive-ALL-D:PVG-1SG   road   DEF   NEG
'I did not get there.'

(25)   *lá   á   ká   ndá   tà   tsá   wù*
go   NEG   2SG   ASSC   PREP   DEF   NEG
'You did not go there?'

(26) *lá-í*   *wà*
go-1SG   NEG
'I did not go.'

(27) *kí*   *vlì*   *tà*   *bèrék*
how   space   PREP   Berek
'How are things at Berek?' (Berek < --- barrack [Eng.] adminis
trative quarter of town)

(28) *tá*   *dghwánà* *gól-xà*   *tà*   *bèrèk*
COM   be well   people-PL   PREP   Berek
'People at Berek are all well'

(29) *tá*   *tà*   *tsk-áy-lú*   *tá*   *vghá*
COM   IMPF   gather-PO-UH   OBJ   body
tà   *hldày*   *mántsá*   *ghàlyá rà*   [*ghàlyé rà*]
PREP   often   like   once   Q
'Do people gather as they used to?'

(30) *tà*   *tsk-áy-xòn*   *dé* ← *dái* (Hau.)
IMPF   gather-PO-3PL   indeed
'They gather indeed.'

(31) *tà*   *tsk-áy-xòn*   *wà*
IMPF   gather-PO-3PL   NEG
'They gather, don't they?'

(32) *èe*
'Yes.'

(33) *tá*   *tà*   *d-ày-lú*   *tá*   *skwì*   *xàdà*   *kày*   *rá*
COM   IMPF   cook-PO-UH   OBJ   thing   there   still   Q
'Do they still cook over there?'

(34) *tà*   *d-ày-lú*
IMPF   cook-PO-UH
'They cook.'

(34) *tà*   *d-ày-lú*   *é*
IMPF   cook-PO-UH   Q
'They do cook, don't they?'

(35) àmá   ná   sná-xɜn   tá   d-ày   góngàgóngà
      but   DEM   know-3PL   OBJ   cook-PO   well (Ful.)
      wù
      NEG:Q
      'But they do not know how to cook very well.'

(36) sná-xɜn   wà
      know:NEG-3PL   NEG
      'They do not know.'

(37) sná-xɜn   wá
      know:NEG-3PL   NEG:Q
      'They do not know?'

(38) èe
      'Yes.'

(39) àmá   káy
      but   INTERJ
      'But well.'

7. Wives of a Chief

(1) mì-á   m̀ghám
      wives-GEN   chief
      'Wives of a chief.'

(2) màmú   sàn   m̀ghám   tá   klá-f-tá   màràkw   xìs
      exist   certain   chief   COM   take-UP-REF   wife   two
      'There was a chief who married two wives.'

(3) tsá   myí-xà   yá   ná   tà   d'v-áy   tá   yà
      DEF   wives-PL   DEM   COMP   IMPF   like-PO   OBJ   DEM
      tùrtúk   d'và   á   tá   yà   tùrtúk-ù
      one   like   NEG   OBJ   DEM   one-NEG
      'Among these wives there, he likes one and does not like the other.'

(4) kà   yà-tá   tsá   myí-xà   yá   tá   zwán-ì
      SEQ   give birth-REF   DEF   wives-PL   DEM   OBJ   child-PL
      'And these wives gave birth.'

(5)   tsá [PAUSE]   tsá   màràkw   kùl   dvə́-tsí   yá
       DEF   DEF   woman   REL:NEG   like -3SG   DEM
       tsá   yá   tá   yà-tá   zóŋ   kà   m̀ndú
       DEF   DEM   COM   give birth-REF   son   SEQ   man
       yà   dágálá
       DEM   big
       'The wife that he did not like gave birth to a son, and he became a
       great personality.'

(6)   kà   nzà-tá   tsá   zwáŋ-á-ní   yá   kà   m̀ghám
       SEQ   be-REF   DEF   son-GEN-3SG   DEM   as   chief
       'Her son became a chief.'

(7)   kà   lá-ú-tsì   dà   sánì   lúwá   kà
       SEQ   go-SO-3SG   PREP   certain   village SEQ
       nzà-tá-tsí   [kà]   mà   tsá   lúwá   yà   kà
       become-REF-3SG   [error] in   DEF   village DEM   as
       m̀ndú   dágálá
       man   important
       'He went to a certain village and he stayed there as an important
       person.'

(8)   kà   zl-í-n-tá   tsá   m̀ghám   yá   [tá
       SEQ   chase-AWAY-3-REF   DEF   chief   DEM   OBJ
       zón-á-ní]   tá   tsá   màrkw-á-tàn   yá
       child-GEN-3SG [error]   OBJ   DEF   wife-GEN-3PL   DEM
       'The chief chased away his wife.' (The use of the third-person
       plural possessive pronoun with low tone is a coding means to in
       dicate that the term màràkw refers to his wife rather than, "their
       wife", which would have been also socially impossible.)

(9)   zl-í-n-tà-ní   tá   tsá   màràkw   yà
       chase-AWAY-REF:SUBJ-3SG   OBJ   DEF   wife   DEM
       mán   tsá   mbàdʼ   ká-'á   kà   nzà-tá   mándá
       like   DEF   then   COMP-3SG   SEQ   become   like
       xáláwáy
       mad
       'After he chased the wife, he became almost mad.' (The original
       narrator translated the last clause as 'she became almost mad'.
       Other speakers insist that the clause is ambiguous).

(10)   *mà*   *sán*   *fitík*   [*kà*   *sà-ghà*   *tsì*]
       IN   another   time   SEQ   arrive-D:PVG   3SG
       kà   *sá-ghá*   *tsá*   *zón-á-ní*   *yà*
       SEQ   arrive-D:GO   DEF   child-GEN 3SG   DEM
       'One day that son of his returned.'

(11)   *gá*   *mà-d'á*   *nà ká*   *á*
       where   mother-1SG   Q COMP   3SG
       ' "Where is my mother?" he said.' (The high tone on the posses
       sive suffix *d'á* is a result of the interrogative coding on the penul
       timate syllable.)

(12)   *xád'à*   *má-ghá*   *tá*   *mà*   *ná*   *xgá*   *ná*
       NEG   mother-2SG   COM   IN   DEM   house   DEM
       wù   *ká-lù*
       NEG   COMP-UH
       ' "Your mother is not in this house," he was told.'

(13)   *gá*   *tsí*   *nà ká-'á*
       where   3SG   Q COMP:3SG
       ' "Where is she?" he asked.'

(14)   *zl-í-n-zlá-lú*   [*xá*   *mà-ghà*]
       chase-AWAY-3-chase-UH   not to be   mother-2SG
       xàd'ú   *gà*   *íŋní*   *wù*   *ká-'á*   [*xágì nùù ká*]
       not to be   with   1PL   NEG   COMP-3SG
       ' "She has been chased away, she is not with us," he was told.'

(15)   *ŋghà-ná-tà-ní*   *kà*   *zlày*   [*ná*]   *zwàn-á-d'á*
       see-3-REF:SUBJ-3SG   SEQ   COMP   DEM   child-GEN-1SG
       yà   *ká-'á*   *ná*
       DEM   COMP-3SG DEM
       'Having seen that it was his child' (lit. 'this is my child')

(16)   *ká*   *tsá*   *ŋghám*   *yá*   *kàyná*   *dzà'á*
       COMP   DEF   chief   DEM   therefore   FUT
       vrà-gá-nà   *tá*   *tsá*   *màrkw-íín-yú*   *ká-'á*
       return-INN-3   OBJ   DEF   wife-1PL-1SG   COMP-3SG
       'The chief said: "I will make our wife return." '

8. How a Bat Wooed a Girl

(1) bat (variant) PREP pigeon SEQ go PURP woe
dà mákwà
PREP girl
'I am going to tell a story about the loan that a bat got from a pi-
geon in order to woo a girl.'

(2) mà sán-à fitík kà hlí'yá-f-tà kúkù dà
PREP one-GEN day SEQ leave-UP-REF pigeon PREP
ghə́rbú kà hlí'yá-f-tà kà dzà'á dá tsá
cuckoo SEQ leave-UP-REF SEQ go PURP borrow
ndzáwá
loan
'One day pigeon got up and went to the bird [error] to get a loan.'

(3) kà hlí'yá-f-tá zvàxw kà ɗáwá-f-tá ntfàn
SEQ leave-UP-REF bat SEQ ask-UP-REF glue
ɗáwá-f-xà-tá dàwrà
ask-UP-ALSO-REF cloth
'The bat left and asked for glue and also for clothing'

(4) ɗáwá-f-xà tá múdúbí dáwá-f-xà-tá
ask-UP-ALSO OBJ eyeglasses (Hau.) ask-UP-ALSO-REF
ɓáɓàx ngá dzà'á dà mákwà
shoes FOR go PREP girl
'He asked for eyeglasses and he also asked for shoes in order to
go to a girl.'

(5) tà xúlá lá-ghà-táŋ dà mákwà dà jíjì ée,
PREP after go-D:PVG-3PL to girl to in-laws [hesitation]
kà ɗvá-ú-á-tá mákwà tá zvàxw kà
SEQ like-SO-GO-REF girl OBJ bat SEQ
zlá-ná-vá-tá kúkù
leave-DEM-APPL-REF pigeon
'After they went to the girl, to the in-laws, the girl chose the bat
and she left the pigeon.'

(6) tà   xúlá   tsá   mántsá   kà   d'áwà-ú-tá   kúkù
     PREP   back   DEF   that   SEQ   ask-SO-REF   pigeon
     tá   índà   xùzlà-xà-ní   klá-ghú-tsí   dà   tsì
     OBJ   all   good-PL-3SG   take-D:SO-3SG from   3SG
     'Afterwards the pigeon asked for all his things that the bat had
     taken from him.'

(7) tà   xúlá   tsá   mántsá   ká   kúkù   mántsá
     PREP   back   DEF   COMP   COMP   pigeon   COMP
     fitík   d'vá-fà-á-ká   tí-fí   wù   ndáná   nà   tàmá
     since   like-UP-NEG-2SG   OBJ-1SG   NEG   now   DEM   thus
     grá   zvàxw yàghá   tá   índà   xùzlà-xà-d'á   démdém
     friend   bat   give me   OBJ   all   good-PL-1SG   all
     ká-'á
     COMP-3SG
     'Afterwards, the pigeon said: "Since you did not like me, now, my
     friend bat, give me back all my things." '

(8) tà   xúlá   klá-ù-tà-ní   kà   tsírá-tá
     PREP   back   take-SO-REF:SUBJ-3SG   SEQ   defecate-REF
     zvàxw tá   tsírá-kú   tà   vghá   kàbgà
     bat   OBJ   defecate-ABS   PREP   body   because
     tá   xàd'ú ntfàŋ   ngá   núwá-f   tá   mndrá-ní   wà
     COM   lack   glue   FOR   close-UP   OBJ   anus-3SG   NEG
     'When he took this, the bat defecated on himself because there was
     no glue to close his anus.' (Another speaker preferred xlá-ùtà-ní
     'having gathered' instead of klá-ù-tà-ní.)

(9) tà   xúlá   tsá   kà   ghùβàsá-p-tá   lá   jíjì
     PREP   back   DEF   SEQ   laugh-OUT-REF   COLL   in-laws
     'Afterwards the in-laws burst out laughing.'

Notes

1. In many cultures of northern Cameroon, the father blesses members of the household at the beginning of the new year, i.e. the new agricultural cycle. The blessing takes the form of spitting into the face or hands of the person being blessed. For a description of the custom among Giziga, speakers of another Central Chadic language, cf. Jaouen 1995.
2. The sequence *pákáw-á ghúvì* 'hyena' ('leopard-GEN feces'), the only form to designate hyena in our data, is glossed in all examples in the grammar as "hyena."
3. The day when the bull raised in the compound is slaughtered. In some traditions, the festivities actually start before the day the bull is slaughtered.
4. The term *dghà mblám* refers to blacksmiths who make sacrificial pottery called *zíglá-zíglá*, *skwá zwáŋ* 'thing of child', a form of medicine to protect children. This group of blacksmiths does not differ in their social life from the rest of society. The term *dghà mbùldá* (we could not identify the meaning of the word *mbùldá*) refers to blacksmiths who make hoes, axes, and other iron tools. This group of people also takes care of all burials in the village. As of 1998, there was no intermarriage between the members of *dghà mbùldá* and the rest of the community, and there is also a prohibition on touching and eating from the same dish as members of *dghà mbùldá*.
5. Note that the genitive marker has low tone in the expression *ghớŋ-à xìyá* 'about the corn'. The low tone indicates a phrasal boundary. High tone on the genitive marker in this expression would result in the meaning 'head of corn'.
6. The term *yàghí* 'intelligent, smart' is a nickname given to the squirrel in folktales. It is also used in similes:

yàghí	*tsá*	*mìndú*	*yà*
intelligent	DEF	man	COP

   'the man is intelligent'

   The name *gáŋ* is used to refer to squirrel as a zoological species.
7. Hamayadzi is a Hdi version of the name Hamman Yaji, a Muslim ruler who, until the late twenties, repeatedly raided villages in northern Nigeria and northern Cameroon for slaves and cattle. He was arrested in 1927. The description of his activities from his point of view can be found in Vaughan and Kirk-Greene 1995.
8. The expression *nàsàrá-ngrá* 'white man-black' refers to a black educated person. The term *nasara* 'white man' has been borrowed from Fula *nasaara* 'white man'. The extension from the meaning 'white man' to 'educated man' occurs in other Chadic languages, e.g. Mupun (cf. Frajzyngier 1993).
9. Until relatively recently, guinea corn, the staple food of Xdi, was seldom sold. It constituted the guarantee of a food supply for the whole family for the whole year. The selling of guinea corn has been forced on the people by taxes, the need to pay for education, and so on.

10. The verb *phlà* means 'kill many; make something soft'. It is the plural equivalent of the singular verb *dzà* 'kill'. The meaning 'break into many pieces' for the verb *phlà* is obtained through the addition of the third-person *n* or the demonstrative *ná*.

11. The following is proposed as the etymology of the word *lázgláftà* 'God'. Every member of the family has one God, who resides in a special sacrificial piece of pottery. The God of each person is called *zə́gláftà*. A morphological analysis of this word indicates that it could be the verb *zá* 'eat', followed by the extension *glá* 'again', extension *f* 'up', and the referential marker *ta*, something to the effect of 'eat up again'. Additional support for this etymology is provided by the fact that the verb always occurs in its root form before the 'again' extension *glá*. The tone before the extension *f* 'up' is always high. The form *lá zgláftà* is composed of the collective marker *lá* followed by the word God. Etymologically, *lázgláftà* thus represents a collective of personal Gods.

12. The form corresponding to 'how to do *x*' is widely used in Chadic and non-Chadic languages of northern Cameroon to mean 'what to do'.

13. *dzúlá:* 'a Moslem prayer', 'Islam', 'learning'.

14. *màrwà* in this usage is a borrowed word. The Hdi word *màrwà* means 'smallpox'.

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