



**A Grammar of Tadaksahak**  
**a Northern Songhay Language of Mali**

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# **A Grammar of Tadaksahak, a Northern Songhay Language of Mali**

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### Abbreviations and symbols

-	morpheme boundary
=	clitic boundary
~	variant of lexeme
ˈ	stress over a syllable
˘	fixed stress on stem of words
<	borrowed from
1p	1 <sup>st</sup> person plural
1s	1 <sup>st</sup> person singular
2p	2 <sup>nd</sup> person plural
2s	2 <sup>nd</sup> person singular
3p	3 <sup>rd</sup> person plural
3s	3 <sup>rd</sup> person singular
ACT	actor-nominalizer
ADJZR	adjectivizer
ALL	allative
ANA	anaphoric demonstrative
BND	bound root (Tamasheq origin)
C	consonant
COMV	verbal complement
D	Tamasheq Tudalt
DAT	dative
DET	determiner
DEM.FAR	demonstrative pointing in the distance

DEM.NEAR	demonstrative pointing close
DEM.PROX	demonstrative pointing in proximity
INT	intensifying discours particule
EMP	emphatic
EXM	extraction marker
F	feminine
FUT	future
FOC	subject focus marker
GEN	genitive postposition
IMP	imperative
IMPERF	imperfective
INST	instrument
IO	unmarked indirect object (usually dative)
KCH	Koyra Chiini: Songhay of Timbuktu
KS	Koyraboro Senni: Songhay of Gao
LOC	locative postposition
LC	logical consequence
MAN	mood-aspect-negation marker
NEG	negation
O	object
PL	plural
POSS	possessive postposition
PP	postposition
QST	question particule



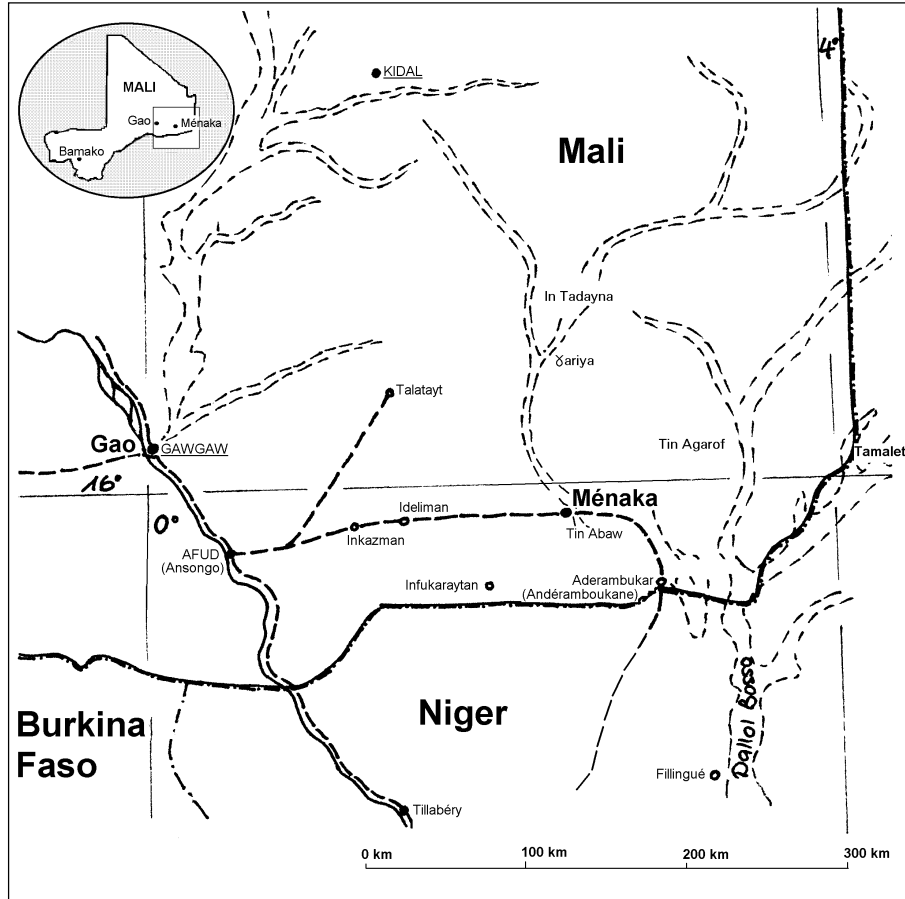
Abbreviations and symbols

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S	subject
SG	singular
SUBJ	subjunctive
V	vowel
VEN	ventive
VN	verbal noun
W	Tamasheq Eastern Tawəlləmmet (Tahoua)
WW	Tamasheq Western Tawəlləmmet (Menaka)

## Map

The oval inset shows the Republic of Mali with the enlarged area in a rectangle.



The different lines stand for:

- border to a neighboring country
- all year passable road
- - - - oued/depression leading water in rainy season
- Tin Agarof location name

## 1. Introduction

### 1.1 *General information*

#### 1.1.1. *Location*

Tadaksahak is the language spoken by the Idaksahak (also known as Dausahak), a nomadic group living mostly in the administrative 'cercle de Ménaka' and in the northern part of the 'cercle d'Ansongo' in the seventh region of the Republic of Mali.

The area is between longitude 0° and 4° east and between some degrees north and south along latitude 16° north. The area is also inhabited by speakers of other languages such as the Tuaregs, the Songhay, Arabs, and the Fulfulde.

#### 1.1.2. *Classification*

Tadaksahak was classified (Nicolai 1981:25) as part of the Songhay languages spoken along the Niger river in Mali and the western part of Niger. Songhay was tentatively attached to the large Nilo-Saharan phylum (Greenberg 1966). More recent hypotheses published by Robert Nicolai (1984, 1990) suggest that Songhay came into existence as a creole language with important lexical input from Tamasheq.

The Songhay branch comprises roughly the following languages as indicated on the website of the online Ethnologue (2005) and in combination with Nicolai's classification (1981).

Language names	Location: country	city
<b>Southern Songhay</b>		
Songhay, Koyra Chiini	Mali	Timbuktu
Songhay, Koroboro Senni	Mali	Gao
Songhay	Mali, Burkina Faso	Hombori
Zarma	Niger	Niamey
Dendi	Benin	

### Northern Songhay

Tadaksahak	Mali	Menaka
Tagdal	Niger	
Tasawaq	Niger	In-Gall
Korandje	Algeria	Tabelbala

The speech varieties labeled ‘Southern Songhay’ on the list will be called ‘Mainstream Songhay’ in this work. This is to indicate that they behave differently from the Northern Songhay varieties. Tadaksahak is part of the Northern Songhay group. All Northern Songhay languages have undergone heavy influence from Tuareg. Tuareg is a Berber language from the Afro-Asiatic phylum which, from a Songhay perspective, exhibits very different syntax, morphology and lexicon.

Some authors consider Tadaksahak to be a ‘mixed language’ (Lacroix 1968, Nicolai 1990, Benítez-Torres 2008) on the basis of the large percentage of non-Songhay lexicon and grammatical morphemes. In this description I shall remain neutral as to this issue, as it aims at describing the synchronic facts in the language.

#### ***1.1.3. Name of the language***

Tadaksahak is the name that the people use themselves for their language. Authors of linguistic works have used this name, too. Authors of other reports and the administration in Mali also use this name, though rarely.

The “Ethnologue” of the SIL International (Online version 2005) lists a number of names associated with this language. Apart from the name of Tadaksahak, a variety of different spellings are listed, which recall the name used by the Tuareg to designate the people: Dausahaq, Daoussak, Daoussahaq, Dawsahaq, Daosahaq.

The names used by the people themselves refer to a female or a male person, singular or plural.

native term	meaning
<i>a-dáksahak</i>	man of the group
<i>i-dáksahak</i>	men/group of the group
<i>t-a-dáksahak(-k)</i>	woman of the group
	name of the language
<i>t-ə-dáksahak</i>	women of the group

These names indicate at the same time the social status within the caste system of that society. They are only used to designate individuals belonging to the fair-skinned highest caste. The caste of the blacksmiths and the one of the slaves, formerly captured on raids in the South, are referred to by different terms.

Prasse et al. (2003) list Dăw-Şahak / Idd-aw-Işăhak 'son/s of Isaac (the Jewish ancestor)', which seems to be an indication that they are of Jewish origin. This opinion is widely held by the neighboring ethnic groups. The Idaksahak themselves do not claim Jewish ancestry.

The Colonial French administration and today's local civil authorities use the term "daoussahak" to designate the people and the language.

The sedentary people speaking Mainstream Songhay in the three largest market towns in the area use a variant of this term, "dosahak".

## ***1.2 History and Geography***

The Idaksahak themselves indicate Morocco, or more generally, "the North", as their place of origin from where they left some centuries ago. A well educated Adaksahak did some research in genealogies and found evidence that the Idaksahak do not share ancestors with the Tuareg, but probably come from another Berber group in North Africa (Mohammed Ag Guidi, p.c. 1993).

According to some traditions, the Idaksahak may have lived in the Timbuktu area for a period of time before moving on together with a Tuareg group towards the area where the Idaksahak live today.

The Idaksahak are part of Tuareg society, and are considered a group inside the Kel-Ataram ("people of the west"). They have traditionally been herdsman for the nobility of the Iwəlləmmədān

Tuareg and have thus been under protection of the (Tuareg) warrior caste (the so-called nobility). Since they represent a distinct ethnic group and a dependent social community, their relationship was not so close that the Kel-Tamasheq would inherit from the Idaksahak (Mohammed Ag Guidi, p.c., 1993). Until recently, to marry outside the ethnic group, or the caste, was not considered as appropriate and would be sanctioned by the community.

Besides being herdsmen, the Idaksahak were a Maraboutic tribe, which performed the religious duties for the nobility of the Tuareg. Traditionally, these Islamic specialists were not allowed to carry weapons and thus depended on the protection of the Tuareg warriors. The clan of the *Id-affarif*, considered to be direct descendants of the clan of the Prophet Mohamed, is the best known maraboutic clan among the Idaksahak, but there are also other groups that claim to have maraboutic knowledge.

In recent years, this interdependence has become less important, as the Tuareg community in Mali no longer seeks this service. Tuareg maraboutic clans, such as the Kel Assuk, also perform these religious rites.

The severe and returning droughts of the past three decades have seriously put into difficulties the different pastoral groups herding in the area. In addition, the armed uprising of a number of nomadic groups against the central Malian government from 1990 to 1995 shook the area on a social and security level.

For lack of work in their homeland, many young men seek work abroad in the countries of the Maghrib. They often work as herdsmen or as traders. Women rarely leave the area.

However, there are established Idaksahak communities found outside the homeland. Isolated communities of black Idaksahak, descendants of the former slaves, live as farmers on the west bank of the Niger river in the Republic of Niger, and possibly also in the most northern part of Burkina Faso (Sudlow 2001:6). A larger community lives in Tamanrasset, Algeria, which was established there after the first Tuareg rebellion in the 1960s.

### 1.3 Earlier studies

Pierre-Francis Lacroix was the first to mention Tadaksahak in linguistic literature, together with related languages. They were referred to as “mixed languages” because of the evidence of strong influence from Tamasheq (Lacroix 1968). Further studies include the phonological sketch in Nicolaï (1979) and Nicolaï (1980) as well as the description of verb derivation in Christiansen & Christiansen (2007).

In his extensive study of Songhay languages, Robert Nicolaï classified Tadaksahak as part of Northern Songhay (Nicolaï 1981:25, see Fig. 1). According to Nicolaï, Tagdal and very similar Tabarog (which he refers to together as Tihishit), together with Tadaksahak form the nomadic subgroup. According to the Idaksahak, the Igdalen, who speak Tagdal, are considered to be their descendants. They live in the region further east to the Idaksahak’s territory in the Republic of Niger. The Igdalen used to have economic links with the Iberogan (speaking Tabarog), who now live further south as agriculturists.

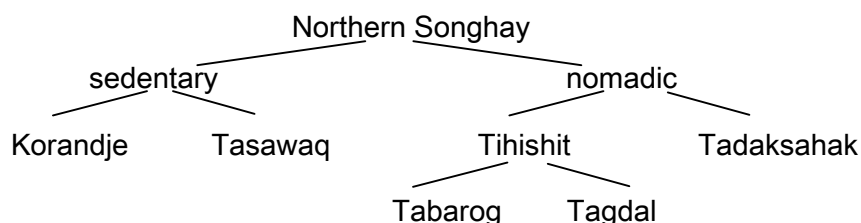


Figure 1: Classification adapted from Nicolaï

### 1.4 Dialects

There are about 31,800 speakers of Tadaksahak (Ethnologue 2005) including all social groupings. Like the Tuareg society, the Idaksahak traditionally have a caste system that divides the community into three distinct social classes of ‘free masters’ (*i-dáksahak*), ‘craftspeople’ (*zeem-án*, comprising blacksmith families for woodwork, metal and silver) and the ‘captives’ (‘slaves’) (*taam-én*) from black ethnic groups from the south.

In this work I describe the language variety as it is used in the area around Menaka, consisting of several fractions over a larger area, who communicate in this speech variety.

As to lexical deviations, I have placed them under one of the following three location names: Tamalet, on the Azawagh valley (mainly spoken by the clan of the Ibhan and Tarbanasse); Talatayt, north-west of Menaka; Infukaraytan, on the southern border of the Idaksahak's homeland, situated between Menaka and Niamey, on the border to the Republic of Niger.

The most significant phonetic feature of the Tamalet variety is the merging of the palatal plosives /c/ and /j/ with the fricatives /ʃ/ and /ʒ/ respectively. In addition, the feminine plural prefix /t-ə-/ of Tadak-sahak is pronounced [ʃi-]. There are also a number of lexical particularities. The speakers of this variant live at the easternmost border of the Idaksahak territory in the Azawagh valley around Tamalet.

Pharyngealisation is much less prominent in the southern speech varieties (Infukaraytan), while it is very strong in the north (Talatayt). The clan around the former traditional tribal leader of the group, now settled in the Talatayt area, seems to be the most conservative, linguistically speaking. They use lexemes and forms no longer used elsewhere in the area. The groups around Menaka are reported to be the most innovative.

### **1.5 Fieldwork**

I made a first trip to Menaka in the fall 1992 together with my husband Niels. The following year, we moved to this administrative town, and over a period of nine years, from September 1993 until December 2002, we spent fifty percent of our time there. We were first assigned to do further socio-linguistic studies to explore the viability of the language and the possible need for development of linguistic materials under the auspices of SIL International (former Summer Institute of Linguistics). A year later, the assignment was changed to language learning and documentation.

Since the literacy rate is very low in this group and since schools were virtually absent at the time we started our work, it was a challenge to find educated speakers with whom I was able to communicate in French.

The basis for this analysis consists of data from elicitation, as well as a corpus consisting of generally known folk tales, short dialogues and personal experiences and several hours of taped radio emissions



from “Radio Rurale de Menaka”. The lexical data base was worked over twice in its entirety, once in the summer 2000 in Gao with the late Moussa ag Mohammed from Menaka, then agent of the *Service des Eaux et Forêts* and a second time in the fall 2002 in Menaka with Hadmahammed ag Mohammed, known as Ḥabəlla, originally from Ḥariya, now headmaster of the school in Inkiringia.

The textual transcriptions, based on tapes from other speakers, were made in collaboration with various Tadaksahak speakers. The National Institute for Literacy DNAFLA (former *Direction Nationale pour l’Alphabétisation Fonctionnelle et Linguistique Appliquée*) did not have a section for this language, but I was in contact with both the Songhay and the Tamasheq unit.

## **1.6 Acknowledgements**

Without the help, encouragement and teaching of many people, this book would never have been realized. First of all I want to thank my family, who has often had to stand back when this work was underway. I also want to express my gratitude to my SIL colleagues Phil Davison, Brad Smeltzer, Robert Carlson and Steven H. Levinsohn for their essential teaching and encouragement along the road, while we were still living in Mali. Once we were settled in Europe, the University of Leiden was of crucial importance and a tremendous help to work on all the collected data. A grant from NWO (Netherlands Organization for Scientific Research) made it possible to realize the major part of this study. It is part of the research project “Tuareg and the Central Sahelian Languages, A History of Language Contact”. The manuscript has been in different hands to clarify my thoughts and to improve my English. My thanks go to Peter Thalmann and Kathy Bow for their suggestions.

But without the faithful and patient listening, repeating, teaching and speaking on tape of many different speakers of this extraordinary language, this work would not have been possible. I want to express my thanks to: Jaddi, Ḥamad-Maḥmud, Maḥamad, Fatimata, Ḥad-Maḥammed, Taḥa, Ḥaduwa, Ayuuba, Fatmata, Assalim, Aḣaafaḣa, Ḥabəlla and many more. God may, as you, the Idaksahak say, have taken all the leftovers of the other languages to give the last one to you, but He made your language a very special one!



## 2. Phonological Structure

### 2.1 Syllable Structure

In this section we describe the basic syllable patterns observed. In a word almost all consonants can occur in almost all positions. We do not give specifications here but discuss the restrictions under 2.2.3.

Tadaksahak has the following syllable structures:

(1) *Syllable structure*

open syllables	closed syllables
CV	CVC
CVV	CVCC

In word-initial position, the onset may be absent, and vowel-initial syllables occur, e.g. *íiləs* 'tongue', *ákrar* 'ram'. Doubly closed syllables only occur in word-final position and always contain the feminine singular suffix *-t* as their final element, e.g. *tadábert* 'pigeon' (see 3.2.2). Long vowels only occur in non-final open syllables.

## 2.2 Consonants

### 2.2.1 Inventory of phonemes

There are 32 consonantal phonemes. The whole series of the alveolar consonants also appears pharyngealized. This feature is marked by a dot under the consonant. The signs are the orthographic representations used in this work. *c* and *j* represent [tʃ] and [dʒ] respectively, *y* represents [j] and *r* [r]. On the table below, the letter 'v' indicates voicing, '-v' stands for voiceless and '+v' for voiced.

## (2) Consonants

	Labial		Alveolar		Pharyngeal -ized		Palatal		Velar		Pharyngeal		Laryngeal
	-v	+v	-v	+v	-v	+v	-v	+v	-v	+v	-v	+v	
Stops		<i>b</i>	<i>t</i>	<i>d</i>	<i>ʔ</i>	<i>ɖ</i>	<i>c</i>	<i>j</i>	<i>k</i>	<i>g</i>	<i>q</i>		
Fricatives	<i>f</i>		<i>s</i>	<i>z</i>	<i>ʃ</i>	<i>ʒ</i>	<i>ʃ</i>	<i>ʒ</i>	<i>x</i>	<i>ɣ</i>	<i>ħ</i>	<i>ʕ</i>	<i>h</i>
Glides		<i>w</i>						<i>y</i>					
Laterals			<i>l</i>		<i>ɭ</i>								
Taps			<i>r</i>		<i>ɾ</i>								
Nasals		<i>m</i>	<i>n</i>		<i>ŋ</i>				<i>ŋ</i>				

## 2.2.2 Evidence for Consonantal Contrasts

Here are some examples of the different contrasting environments for the consonants as word initial, syllable initial, intervocalic, and syllable final where this position is possible. Contrast between same place of articulation with different voicing and adjacent points of articulations are given.

## (3) Contrasts with consonants

C		gloss		gloss
b/m	<i>báy</i>	to know	<i>máy</i>	to own
	<i>bún</i>	to die	<i>mún</i>	to throw out
	<i>abáktaw</i>	old cushion	<i>amáktar</i>	leaving the well
	<i>áblay</i>	chunk of earth	<i>ámlay</i>	meat (kind of)
	<i>alzíb</i>	pocket	<i>ajím</i>	thousand
b/f	<i>bér</i>	to be big	<i>fér</i>	to open
	<i>bún</i>	to die	<i>fún</i>	to pierce
	<i>ziibíitan</i>	dirt (pl)	<i>jiifatan</i>	corpses
	<i>ábram</i>	white turban	<i>áfraw</i>	feather / wing
	<i>šéṭab</i>	to put on a belt	<i>šéṭef</i>	to spit
b/d	<i>báy</i>	to know	<i>dáy</i>	to buy
	<i>bíibi</i>	to be black	<i>biidí</i>	bone

	<i>yibrár</i>	to be bad	<i>yídray</i>	to be decorated
	<i>yírkəb</i>	to pull	<i>yínkəd</i>	to sneak to
d/t	<i>dudú</i>	to pour	<i>tudú</i>	to respond
	<i>bídaw</i>	canister	<i>lítam</i>	turban (kind of)
	<i>átri</i>	star	<i>ádri</i>	crack in skin
	<i>yífəd</i>	to borrow (s.th.)	<i>yíbet</i>	to snatch
d/ð	<i>dələg</i>	to decorate	<i>ðələm</i>	to accuse unjustly
	<i>éedag</i>	place	<i>éedag</i>	herb, sp.
	<i>adágar</i>	part	<i>aðágał</i>	father-in-law
	<i>anáfad</i>	tobacco pouch	<i>añáfað</i>	infection
d/j	<i>jinjí</i>	neck	<i>diŋgá</i>	forgetfulness
	<i>tadábert</i>	pigeon	<i>tajábert</i>	fonio, sp.
	<i>cindí</i>	part	<i>cinjí</i>	rain
g/k	<i>guná</i>	to see	<i>kuná</i>	to find
	<i>guurú</i>	metal	<i>kuurú</i>	leather / skin
	<i>yígbəs</i>	to wear	<i>yíkbəl</i>	support
	<i>létəg</i>	waistcloth	<i>şətək</i>	to point
		heaviness		
g/j	<i>geení</i>	head louse	<i>jeejí</i>	to hang up
	<i>gíman</i>	to be good	<i>jinán</i>	luggage
	<i>ígitan</i>	elevations (pl)	<i>ijíiman</i>	thousands (pl)
g/ɣ	<i>gáafa</i>	crime	<i>ɣáafaf</i>	striped polecat
	<i>áagar</i>	tree, sp.	<i>áayar</i>	straw, sp.
	<i>agírid</i>	granary	<i>ayíri</i>	white spot (on dog)
	<i>yírgəm</i>	to be upset	<i>yírɣəm</i>	to warn
	<i>yáhag</i>	to last	<i>yáhay</i>	to ransack
q/k	<i>qóq</i>	to be dry	<i>kós</i>	to cut
	<i>ləqəm</i>	to strengthen	<i>ləkəm</i>	following (n)
	<i>yíqbəl</i>	to fulfill prayer	<i>yíkbəl</i>	to support
	<i>abáaleq</i>	dust	<i>t(a)séelək</i>	young woman
k/c	<i>karáy</i>	ball	<i>caráy</i>	friend
	<i>keedí</i>	be on	<i>ceedí</i>	spoon
	<i>arkilla</i>	mosquito net	<i>arcíni</i>	hyena
	<i>səkiyki</i>	try in vain	<i>təgmací</i>	alphabet
f/h	<i>fánfi</i>	pump	<i>hánfi</i>	dog
	<i>alfáydat</i>	importance	<i>səlhá</i>	make cry
	<i>ífayan</i>	edges	<i>ihayan</i>	descendants

s/z	<i>sérgæg</i>	to join (string)	<i>zérgəz</i>	to walk fast
	<i>ayásar</i>	jumping on (n)	<i>ayázar</i>	pond
	<i>tásləft</i>	ax (kind of)	<i>tázləft</i>	eagle, sp.
	<i>íblis</i>	devil	<i>ágliz</i>	left over (n)
s/ʃ	<i>séryəd</i>	to appease	<i>féryəf</i>	to facilitate
	<i>ássayal</i>	fonio, sp.	<i>áffayal</i>	work (n)
	<i>téskənt</i>	excrement (k.o.)	<i>tífkənt</i>	greeting
	<i>afáryas</i>	tortoise	<i>féryəf</i>	to facilitate
s/ʂ	<i>sédəd</i>	to support	<i>şəđəş</i>	to hit
	<i>íssakan</i>	nests (bird)	<i>íşşakan</i>	songs
	<i>sébəs</i>	to exhaust	<i>yíbbəş</i>	to chew
z/ʒ	<i>zézəl</i>	to drive	<i>zízil</i>	to draw water
	<i>tamázaq</i>	dispute	<i>tamáazaq</i>	Tamasheq
z/ʒ	<i>éezaw</i>	heron, sp.	<i>éeza</i>	grass, sp.
	<i>yízgəg</i>	to play around	<i>yízgəg</i>	to make accept
	<i>yízləg</i>	to carry on shoulder	<i>yízləg</i>	to search for (lost animal)
x/ɣ	<i>xúruuru</i>	to have large holes	<i>yúruuru</i>	to rustle (dry leaves)
	<i>axárxar</i>	tearing apart (n)	<i>ayáryar</i>	barren plain
	<i>yíxrək</i>	to lose one's way	<i>yíyres</i>	to cut straight
	<i>yímsax</i>	to sniff (water)	<i>yínsay</i>	to whistle
x/ħ	<i>xátim</i>	pers. name	<i>ħád</i>	pers. name
	<i>axáruk</i>	creation	<i>aħákam</i>	reign (n)
	<i>yíxdəm</i>	to work	<i>láħdas</i>	lentils
	<i>yímsax</i>	to sniff (water)	<i>assáħ</i>	strength
ħ/ʕ	<i>alħál</i>	custom	<i>alʕár</i>	refusal
	<i>aláaħit</i>	wooden tablet	<i>aláʕan</i>	curse (n)
ħ/h	<i>ħáaʃi</i>	bone (kind of)	<i>háńfi</i>	dog
	<i>talmáħa</i>	toy mat	<i>tasáhart</i>	lid (pot)
	<i>alħál</i>	custom	<i>álham</i>	anger (n)
w/b	<i>wá</i>	to be healed	<i>bá</i>	IMP(perative) particle
	<i>áwwa</i>	pers. name	<i>ábba</i>	daddy (voc.)
	<i>ṭáw</i>	to reach	<i>dáb</i>	to cover
w/y	<i>wáy</i>	woman	<i>yáy</i>	to be fresh

	<i>yaawén</i>	female camels	<i>yaayén</i>	freshness, pl
	<i>aryén</i>	water	<i>arwén</i>	men
	<i>yáy</i>	freshness	<i>yáw</i>	female camel
l/d	<i>lábək</i>	being skinny (n)	<i>dəbət</i>	to be able to
	<i>ámlay</i>	fatless meat	<i>ámday</i>	giraffe
	<i>yél</i>	green grass	<i>yéd</i>	to return
l/r	<i>yílmaɣ</i>	to dive	<i>yírmaɣ</i>	to be afraid
	<i>yíyləf</i>	to entrust to	<i>yíyrəf</i>	to span (drum)
	<i>téefalt</i>	coin	<i>téefart</i>	recompense
	<i>ázwal</i>	mark	<i>ázwar</i>	jujube fruit
l/!	<i>!aabú</i>	clay	<i>labás</i>	to be dangerous
	<i>éelab</i>	pit (kind of)	<i>éelaw</i>	elephant
r/d	<i>ríiba</i>	profit (n)	<i>díidi</i>	to trample
	<i>təricin</i>	saddles (k.o.)	<i>tədican</i>	tent posts
	<i>áwwur</i>	shield (kind of)	<i>áwwud</i>	boil (n)
r/ɣ	<i>báara</i>	to be (in)	<i>báaya</i>	to want / to love
	<i>ayəri</i>	white spot (dog)	<i>ayəyi</i>	crevice
	<i>ámrar</i>	rope (kind of)	<i>ámɣar</i>	old person
r/ʔ	<i>yíkrəm</i>	to fold	<i>yíkrəm</i>	to rest (animals)
	<i>ahára</i>	potassium	<i>éefara</i>	wind from south
	<i>abákar</i>	young ram	<i>fákar</i>	to reveal
m/n	<i>maaní</i>	grease	<i>náani</i>	here (it) is!
	<i>takámmart</i>	cheese	<i>takánnart</i>	forehead
	<i>adími</i>	antelope, sp.	<i>adínit</i>	world
	<i>eeśám</i>	fat (kind of)	<i>éeśan</i>	tooth
m/w	<i>mənəyət</i>	to wither	<i>wənənəg</i>	to walk about
	<i>alámes</i>	chick, sp.	<i>aláweg</i>	branch (kind of)
	<i>áyrəm</i>	town	<i>áyraw</i>	yoke (kind of)
n/ŋ	<i>na</i>	to give	<i>ŋa</i>	to eat
	<i>kaŋ</i>	to fall	<i>kan</i>	to be sweet
n/ŋ	<i>ánna</i>	mom (vocative)	<i>ánaŋa</i>	shrub, sp.
	<i>yaníd</i>	to have a fever	<i>yaŋéŋ</i>	to be trained (camel)

### 2.2.3 Distributional Restrictions

In the following subsections we discuss distributional restrictions of the different consonants. A type of consonant found 'in all positions'

means that the positions ‘word initial, syllable initial, intervocalic, syllable final and word final’ are attested in our data. Consonant sequences are also discussed for the position ‘syllable final’.

### 2.2.3.1 Labials *b* and *f*

*/b/* and */f/* occur in all positions but in mono-morphemic lexemes */b/* is never found preceding voiceless stops (*/t/*, */k/*, */q/*). The voiceless fricatives */s/*, */x/* and */h/* are found following */b/*.

The voiceless/voiced distinction of the labials is realized as */b/* versus */f/*. This is evident from the IMPERF prefix *b-* that assimilates in voicing to *f-* if the following C of the verb root is voiceless. Examples are found under (3.1.4.2).

Loanwords from e.g. French beginning with */p/* are regularly reinterpreted and pronounced *f* by speakers who do not know French, e.g. Fr. *porte-monnaie* ‘purse’ becomes *fartəməani*, and Fr. *projet* ‘project’ is pronounced *faróze*.

### 2.2.3.2 Plosives

The only plosives that have restrictions in distribution are the affricates *c* [tʃ] and *j* [dʒ]. We have no evidence of them in word-final or syllable-final position, except when they are part of a geminated consonant, as for example in *hijji* ‘piston’. The following examples illustrate alternations in which */c/* in syllable initial position before a front vowel alternates with */k/* before a back vowel or in syllable final position.

#### (4) Alternations between */c, j/* and */k, g/*

<i>irkána</i>	hyenas	<i>arcíni</i>	hyena
<i>kúrukud</i>	to have shame	<i>takarácet</i>	shame
<i>húgu</i>	tent / house	<i>híjen</i>	tents / camp
<i>gá</i>	self	<i>jén</i>	selves
<i>təzəkwin</i>	storms	<i>táazice</i>	storm
<i>ihəktan</i>	tent awnings	<i>ahácet</i>	tent awning
<i>yígmək</i>	to spell (word)	<i>tégmaci</i>	alphabet

Further examples are under 3.2.3.1.1. with the plural morpheme.



*/c/* and */j/* are restricted in their distribution at the lexical level. In stems, they do not occur preceding the back vowels */u/* and */o/*. However, in actual speech, due to vowel deletion, */c/* and */j/* may appear before back vowels, e.g. the noun *cjji* 'night' can be followed by the demonstrative *óoda* 'this' meaning 'the night in question'. The rules for final vowel deletion lead to an allowed pronunciation [ci'dʒo:da]. However, there exists another noun 'tonight' *cigóoda* composed of similar elements but frozen to an expression that is pronounced [ci'go:da].

### 2.2.3.3 Fricatives

In this group the sibilants (*/s/*, */ʃ/*, */z/*, */ʒ/*, */ʃ/* and */ʒ/*) have a status of their own. Sibilant harmony is discussed further under 2.4.1.4.

Fricatives are attested in all positions. Only *ʃ* and *h* do not occur word finally. This may be due to corpus limitations.

### 2.2.3.4 Nasals

We have evidence of all nasals in all positions. *m* is stable, whatever the following consonant.

#### (5) Examples with */m/*

<i>mân</i>	name
<i>amánana</i>	fish
<i>ámɣar</i>	old person
<i>aṭṭáram</i>	west

*n* and *ŋ* assimilate with the place of articulation of the following *C*. For more details see 2.4.1.1.

#### (6) Examples with */n/*

<i>nín</i>	to drink
<i>ándi</i>	you (pl)
<i>anáf</i>	high grass
<i>ayíiwan</i>	tent camp
<i>ṇákaṛḍaf</i>	to wriggle
<i>ánayṇa</i>	little bell
<i>yíṇḍəb</i>	throw an arrow
<i>éewəṇ</i>	shrub, sp.

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*ŋ* only occurs in a few lexical items. In syllable-final position it is pronounced [ŋg].

(7) *Examples with /ŋ/*

<i>ŋa</i>	to eat
<i>amássaŋŋa</i>	cook (person)
<i>tiŋlíst</i> [tɪŋ'list]	English
<i>káŋ</i> [kæŋg]	to fall

2.2.3.5 *Liquids*

The liquid / is found in all positions.

(8) *Examples with //*

<i>lém</i>	to twist
<i>yíli</i>	to leave
<i>álkas</i>	(tea) glass
<i>áɣlal</i>	portable trough

We have not found any examples of the pharyngealized liquid / in syllable-final position except as part of a geminate.

(9) *Examples with //*

<i>lábub</i>	clay
<i>bássaʕli</i>	onion
<i>éelab</i>	pit, sp.

2.2.3.6 *Taps*

*r* is rarely found word-initially. There is a clear preference by the speakers to add a vowel before the flap. The French word 'radio' is taken over as *aragó*.

(10) *Examples with /r/ and /r/*

<i>ríiba</i>	benefit (< Arabic)
<i>aráday</i>	old goat
<i>argán</i>	male camel
<i>ábrug</i>	resin (kind of)
<i>báarar</i>	child
<i>ríiri</i>	to expand (tent)

<i>fərfəɾ</i>	to rub foot on camel's neck
<i>yikrəm</i>	to rest
<i>fákaɾ</i>	to reveal

Long *r* is pronounced as a trill, e.g., *báarar* ['bæ:rar] / *barrén* [ba'ren] 'child / children'.

### 2.2.3.7 Glides *y* and *w*

Both are found in all environments and can be geminated.

#### (11) Examples with /w/ and /y/

<i>wa</i>	to heal
<i>awíci</i>	bracelet
<i>Awwa</i>	personal name
<i>áwrum</i>	pit of jujube
<i>waw</i>	to curse
<i>yaw</i>	female camel
<i>ayyár</i>	moon / month
<i>yaynáy</i>	to be new
<i>caráy</i>	friend

## 2.2.4 Consonant clusters

### 2.2.4.1 Word initial clusters

The word initial cluster 'nasal' + 'C' that is allowed in Mainstream Songhay is not found in Tadaksahak. The Songhay word /nda/ 'and / with' is pronounced *ənda* 'and / with' in Tadaksahak.

Other word initial clusters are not allowed either. When necessary, an epenthetic vowel is added preceding the cluster. This is for example the case in clauses with verbs that have no pronoun enclitic, as in indefinite relative clauses, e.g., *surgóy əb-dút* 'a woman (who is) pounding'

Loans from languages with initial consonant clusters are resyllabified to conform to the system, e.g., *baruwét* 'wheelbarrow' < French: 'brouette' [bruet] or *faróze* 'project (n)' < French: 'projet' [pʁɔʒɛ].

### 2.2.4.2 Clusters with different consonants

Word-internal clusters with different consonants are very frequent. Basically all consonants can follow each other. Only very few combinations are not attested (see also Nicolai 1979). One partial restriction of /b/ is discussed in 2.2.3.1 while clusters with /c/ and /j/ are discussed in 2.2.3.2.

### 2.2.4.3 Long consonants

All consonants can be geminated, with the exception of /ɣ/, /h/ /ʁ/ and /ŋ/. Long consonants are analyzed as a succession of two identical consonants. We give here a few minimal pairs:

#### (12) Minimal pairs with long consonants

lexeme	gloss	lexeme	gloss
<i>yili</i>	to go out	<i>yilli</i>	to soar (bird)
<i>imáɖan</i>	pastures	<i>imáɖɖan</i>	tears
<i>tébbət</i>	to be stolen	<i>tébbbət</i>	to knock
<i>yínɳəʃ</i>	to hobble, (one-sided)	<i>yínɳɳəʃ</i>	to pull away (with teeth)
<i>albána</i>	sickness (kind of)	<i>albánna</i>	bricklayer
<i>hijén</i>	camp	<i>hijjén</i>	pistons
<i>yízəʃ</i>	to pay	<i>yízɳɳəʃ</i>	to stretch out
<i>iháran</i>	herds (small animals)	<i>iharran</i>	lions
<i>baarén</i>	horses	<i>barrén</i>	children

Consonantal length is independent of stress, as shown in the table below.

#### (13) Long consonants and stress

lexeme	gloss	CV pattern with stress
<i>áyalla</i>	wall	́.VCVC.CV
<i>mammaní</i>	odor, perfume	CVC.CV.́CV
<i>hillí</i>	horn	CVC.́CV
<i>hurrú</i>	to look for	
<i>korrá</i>	heat	

#### 2.2.4.4 Word-final clusters

The only clusters allowed word-finally contain the consonant /t/ as their last element. This consonant consists of the second part of the discontinuous morpheme *t(a)-...-t* ('feminine / diminutive / nominalizer'). See (3.2.2.1.1) for details.

(14) *Word final consonant clusters with /-t/*

<i>talánkawt</i>	tail
<i>tadáryalt</i>	blind person
<i>tabáyort</i>	riches
<i>tabáremt</i>	reed, sp.

## 2.3 Vowels

### 2.3.1 Inventory of Vowels

The following chart lists the main phonetic realizations found in Tadaksahak vowels.

(15) *Vowel chart (phonetic)*

	short			long	
high	<i>i</i>		<i>u</i>	<i>i:</i>	<i>u:</i>
high lowered	<i>ɪ</i>				
mid-high	<i>e</i>	<i>ə</i>	<i>o</i>		<i>o:</i>
mid-low	<i>ɛ</i>	<i>ʌ</i>	<i>ɔ</i>	<i>ɛ:</i>	<i>ɔ:</i>
low	<i>æ</i>	<i>e / a / ɑ</i>		<i>æ:</i>	<i>a:</i>

As will be shown below, these can be analyzed as realizations of the following vowel phonemes:

(16) *Vowel chart (phonemic)*

	short			long	
high	<i>i</i>		<i>u</i>	<i>ii</i>	<i>uu</i>
mid-high	<i>e</i>	<i>ə</i>	<i>o</i>	<i>ee</i>	<i>oo</i>
low	<i>a</i>			<i>aa</i>	

### 2.3.2 Evidence of Vocalic Contrasts

The vocalic contrasts are proven by the following examples of stressed vowels in similar environment. When no stressed vowels were attested, unstressed vowels are presented. The first section contrasts short vowels with each other.

#### (17) Short vowel contrast

V	lexeme	gloss	lexeme	gloss
i/e	<i>danjí</i>	charcoal	<i>danjé</i>	silence
	<i>bí</i>	yesterday	<i>be</i>	on (PP)
	<i>dis</i>	to leave alone	<i>les</i>	make dirty
i/ə	<i>dis</i>	to leave alone	<i>dézdəz</i>	to castrate (kind of)
	<i>áabit</i>	chaff, sp.	<i>éebət</i>	taking quickly (n)
	<i>alíkaf</i>	horse saddle	<i>iláktan</i>	branches
	<i>affífit</i>	rope (saddle)	<i>dégəffət</i>	to give a light hit
	<i>táddabit</i>	night without moon	<i>kərabət</i>	be joined
i/a	<i>ígazan</i>	cheeks	<i>agázaw</i>	cheek
	<i>ízzay</i>	son / fruit	<i>ázanzo</i>	milk (kind of)
	<i>alíkaf</i>	horse saddle	<i>alákat</i>	twig
	<i>didá</i>	to walk	<i>tabá</i>	to taste
i/u	<i>dis</i>	to leave alone	<i>tus</i>	to erase
	<i>hiná</i>	to cook	<i>hunán</i>	to leave
	<i>didá</i>	to walk	<i>dudú</i>	to flow
i/o	<i>dis</i>	to leave alone	<i>dos</i>	to touch
	<i>ayéyi</i>	crevice	<i>anóyo</i>	sickness of skin
e/ə	<i>tafáyert</i>	oval receptacle	<i>tayéeyərt</i>	dried wood
	<i>tadábert</i>	pigeon	<i>támbert</i>	grazing in the night (n)
e/a	<i>həw</i>	to cry	<i>haw</i>	to attach
	<i>ténada</i>	fever	<i>tanáfrít</i>	suffering
e/u	<i>fér</i>	to open	<i>fúr</i>	to throw

e/o	<i>lés</i>	to make dirty	<i>dós</i>	to touch
e/a	<i>lébək</i>	meager (n)	<i>téffak</i>	tomorrow
	<i>téffak</i>	tomorrow	<i>táafart</i>	rope (kind of)
e/u	<i>tənəfas</i>	sprinklings	<i>tənúfas</i>	stories
	<i>kərtəba</i>	trousers	<i>tugúdu</i>	tree, wood
e/o	<i>səgən</i>	to kneel down	<i>sóyon</i>	to hobble (knee)
	<i>dəzdəz</i>	to castrate (kind of)	<i>dós</i>	to touch
	<i>təga</i>	to be taken	<i>toogá</i>	T-shirt
a/u	<i>áylal</i>	portable trough	<i>áylul</i>	eternity
	<i>zaná</i>	to churn (milk)	<i>zurú</i>	to run
	<i>guná</i>	to see	<i>hunú</i>	to leave
a/o	<i>tarákat</i>	shrub, sp.	<i>taródayt</i>	fruit, sp.
	<i>agádod</i>	old waterskin	<i>akóko</i>	tree, sp.
	<i>báq</i>	to break	<i>qóq</i>	to be dry
	<i>amáyo</i>	part of the turban	<i>anóyo</i>	skin disease
	<i>zará</i>	lizard, sp.	<i>borá</i>	person
u/o	<i>tús</i>	to erase	<i>dós</i>	to touch
	<i>guná</i>	sight	<i>borá</i>	person
	<i>yúhu</i>	to be born	<i>yóru</i>	to be worn
	<i>kurúkuru</i>	to burn	<i>korókoray</i>	to be very white

The evidence for short /e/ is relatively weak since there are only few lexemes with /e/ on the whole, and /e/ is especially rare in open syllables. Consider the examples below under /ee/.

(18) Long vowel contrasts

V		gloss		gloss
i/ii	<i>íbatan</i>	chaff, sp.	<i>íibatán</i>	losses
	<i>ízzay</i>	son	<i>íizzi</i>	fly
	<i>ikádan</i>	fireplace	<i>íikaran</i>	puppies
	<i>cijí</i>	night	<i>ciidí</i>	salt

e/ee	<i>ténada</i>	fever	<i>téeraya</i>	sweat
	<i>təzárcetan</i>	rolled leather strings	<i>kéreeri</i>	to be hanging
	<i>ilánjezan</i>	drums (kind of)	<i>tadágeera</i>	cheese racks
ee/aa	<i>éenar</i>	antelope, sp.	<i>áanar</i>	eyebrow
	<i>éeyar</i>	cooking pot	<i>áayar</i>	straw of cram-cram
	<i>heebú</i>	market	<i>haabú</i>	hair
a/aa	<i>tabá</i>	to taste	<i>táaba</i>	tobacco
	<i>áyaba</i>	bit	<i>áyaata</i>	monitor lizard
	<i>tamázaq</i>	dispute	<i>tamáazaq</i>	Tamasheq
	<i>abánaw</i>	grass, sp.	<i>abáaleq</i>	dust
aa/oo	<i>áarab</i>	Arab	<i>óorag</i>	flame
	<i>baají</i>	waterbag	<i>boojí</i>	ashes
	<i>abáaleq</i>	dust	<i>abóoray</i>	date fruit
	<i>áyaata</i>	monitor lizard	<i>áyoora</i>	1-3am
u/uu	<i>imúñas</i>	camels	<i>imúuñas</i>	hobbled animals
	<i>hunú</i>	leaving (n)	<i>huurú</i>	fire
	<i>búkut</i>	to pound	<i>búuyu</i>	working together (n)
	<i>guná</i>	sight	<i>guurú</i>	iron
uu/oo	<i>úuray</i>	gold	<i>óorag</i>	flame
	<i>huurú</i>	fire	<i>tooká</i>	ashes (kind of)
	<i>amúudər</i>	animal	<i>abóoray</i>	date fruit
	<i>arúuru</i>	back (body part)	<i>aróoko</i>	saddle (kind of)
o/oo	<i>borá</i>	person	<i>booráy</i>	giraffe
	<i>takóṭayt</i>	cow hump	<i>takóokayt</i>	fruit (doum tree)
	<i>akóko</i>	tree, sp.	<i>aróoko</i>	luggage saddle
	<i>koká</i>	baobab powder	<i>tóodat</i>	humid soil



With the mid vowel /o/ - /oo/, the evidence for a phonemic length contrast is rather weak. In open syllables the long mid vowels are much more frequent than their short counterparts. In addition to the forms given above, one may cite the following cases: *igórizən* 'black solution'; *tafógit* 'metal point of sheath'; *sogá* 'to indicate', *borá* 'person'; *izámolan* 'marks of recognition'; *komáami* '(walk) with bent neck (camel)'.

### 2.3.3 Vowel Realizations

Pharyngealized consonants, as well as uvular and pharyngeal consonants (*x*, *ɣ*, *q*, *ʕ* and *ħ*) influence the realizations of the vowels. This is most evident in the case of /a/. In a word with a pharyngealized consonant, it is lowered and retracted to be realized [ɑ], e.g. [enéfɛd] 'tobacco pouch' <> [ɑnáfɑd] 'infection'.

Similarly, /i/ is lowered	to [ɪ] or [e]
/e/	to [ɛ]
/a/	to [ɑ]
/o/	to [ɔ]
/u/	to [ʊ]
/ə/	to [ʌ]

The vowel /a/ shows the widest range of realizations. For more details see under 'Influence of palatals on /a/' (2.3.3.1) and examples in the texts. On the whole, unstressed vowels tend to be pronounced as more central and lax so that their quality is not always clear in rapid speech. Yet asking the speaker to slow down will render full Vs where schwa was perceived beforehand.

Examples:

[bæ:rər]	<i>baarar</i>	'child'
[ɔ:də]	<i>ooda</i>	'this'

Nicolai (1979a:342) comments on this fact saying that "Il semble que l'importance et la netteté de réalisation des unités du système consonantique soient corrélatives d'une certaine labilité dans les réalisations des phonèmes vocaliques...".

The realization of schwa is strongly dependent on the phonetic context, e.g. *ní-m-s-é-lə-i* [nɪm'sɪlɪ] 'that you make them follow'.

The same speaker may pronounce the same utterance with different V qualities. A request to repeat will often produce a different V 'color' in slower speech. The following example is given in rapid speech: *i-b-údu-an* [i'bədʷan] 'they assembled there'.

The least conspicuous environment for good quality vowels is word or utterance final in open syllables where the realizations are short and plain, i.e., with no possible variation.

### 2.3.3.1 Palatals preceding and following /a/

The palatal phonemes /c/, /j/ and /y/ (Y) have a strong influence on the realization of a following /a/ in a closed syllable of a monosyllabic root. The phonetic difference between /a/ and /e/ is neutralized in this position, and are realized [ɛ].

#### (19) Neutralisation of /a/

/YaC/, /YeC/ → [YɛC]

The underlying /a/ reappears when the addition of a morpheme allows the syllable to be opened. Notice that in all examples below also the rule 'long V shortening in closed syllable' (see 2.4.1.9) is in effect. Consider the following:

#### (20) Realization of /a/ following palatal Cs

singular	plural		gloss
[jɛw]	[ja:'wɛn]	<i>yáw</i>	'female camel'
[tʃɛw]	[tʃa:'wɛn]	<i>cáw</i>	'call'
[dʒɛw]	[dʒa:'wɛn]	<i>jáw</i>	'help'

Compare, with underlying /e/: *héw* 'wind': singular [hɛw], plural [hɛ:'wan].

A syllable that is closed by /y/ also neutralizes the phonetic realization of /a/, i.e. /Cay/ → [Cɛy]. The following examples show that this rule pertains both to words with a Songhay and to words with a Tamasheq background.

(21) *Realization of /a/ preceding /y/ (Songhay cognates)*

singular	plural		gloss
['zɛj]	[za:'jɛn]	<i>záy</i>	'theft'
['jɛj]	[ja:'jɛn]	<i>yáy</i>	'freshness'

Etymologically Tamasheq nouns also follow the rule that /a/ is pronounced [ɛ] when followed by /y/. The following examples show the nominalization pattern /aCaCaC/ for two verbs with three consonants in the root. 'to fill' has a final /y/ in the root that provokes the different pronunciation of /a/.

(22) *Realization of /a/ preceding /y/ (Tamasheq cognates)*

noun	phonetic	verb	gloss
<i>adánay</i>	[a'danɛj]	< <i>dénay</i>	action of filling
<i>adálag</i>	[e'deɫɛg]	< <i>déləg</i>	decoration

### 2.3.4 Vowel Distribution

There are some restrictions on the occurrence of vowels according to the syllable type they are found in, and their position in the word.

In the first place, long vowels only occur in non-final open syllables. In closed syllables and in word-final position, only short vowels are allowed.

In the second place, schwa cannot occur word-finally.

As shown in the following chart, there are hardly any restrictions on combinations of vowel qualities in one word. One remarks gaps as concerns the combination of two mid vowels (/e/, /o/). As the mid vowels are relatively rare, this may be accidental. The combination /u/ - /o/ is only found in two borrowings from French, *fúrno* 'brazier' (< 'fourneau') and *bússol* 'compass' (< 'boussole'). The combination /o/ - /o/ is only attested in borrowings from sedentary Mainstream Songhay: *róogo* 'yams', a food not traditionally planted by the nomads, *sóoro* 'storey' (unknown for tents), also *góoro* 'cola nut' is not part of the nomadic culture.

(23) Possible combinations of  $V_1$  and  $V_2$  in words

$V_2 \backslash V_1$	<i>i</i>	<i>e</i>	<i>a</i>	<i>ə</i>	<i>o</i>	<i>u</i>
<i>i</i>	<i>ciidí</i> salt	<i>hillén</i> horns	<i>didá</i> walk	<i>íiləs</i> tongue	<i>ibóoraɣa</i> <i>n</i> fruits, sp.	<i>ɟɟu</i> make drink
<i>e</i>	<i>feejí</i> sheep		<i>ténada</i> fever	<i>ayéeyər</i> dried meat		<i>éesu</i> bull
<i>a</i>	<i>baarí</i> horse	<i>danjé</i> silence	<i>qaará</i> <i>n</i> study	<i>ahégəg</i> pilgrimage	<i>agóogis</i> braid (kind of)	<i>abútu</i> navel
<i>ə</i>	<i>mətti</i> change	<i>bállen</i> wrestle	<i>kərtəb</i> <i>a</i> trousers	<i>dəbət</i> be able	<i>səfoɣfoɣ</i> to click	<i>agərəfu</i> kneeling
<i>o</i>	<i>boofí</i> ashes	<i>borén</i> people	<i>goorá</i> sit	<i>zərbəba</i> fruit, sp.	<i>góoro</i> cola nut	<i>óoruf</i> acacia, sp.
<i>u</i>	<i>wulíiwu</i> <i>li</i> carry sth. by two	<i>áagud</i> <i>er</i> eagle, sp.	<i>túurag</i> <i>at</i> permissi on	<i>wulétwulət</i> bend in the wind	<i>fúrno</i> brazier/grill	<i>gussú</i> hole

## 2.4 Sound rules

## 2.4.1 Consonants

## 2.4.1.1 Assimilation of place of articulation of /n/

/n/ regularly assimilates with the point of articulation of the immediately following C. This rule applies inside a lexeme as well as between words in a phrase or clause. Consider the following examples with assimilated forms in the verb stem and forms without assimilation in the corresponding verbal nouns.

## (24) Assimilation of /n/ within lexeme

phonetic	verb stem	verbal noun	gloss
[jɪmbaɣ]	<i>yínbaɣ</i>	<i>anábaɣ</i>	hit on the cheek

[ˈjɪmʃay]	<i>yínfay</i>	<i>anáfay</i>	provide
[ˈjɪntəz]	<i>yíntəz</i>	<i>anátaʒ</i>	pull strongly
[jɪŋˈkaɖ]	<i>yinkáɖ</i>	<i>anákaɖ</i>	circumcise

This assimilation rule is also in force at word boundaries. The GEN(itive) postposition *n* is a good illustration

(25) *Assimilation of genitive n over word boundaries*

possessive pronoun + noun		gloss
<i>aya-m báarar</i>		my child
<i>ayá-m farká</i>		my donkey
<i>aya-n táŋgud</i>		my girl
<i>ayá-ŋ caráy</i>		my friend
<i>ayá-ŋ karfú</i>		my rope
<i>ayá-ŋ way</i>		my wife
<i>ayá-N qaarán</i>		my studies

2.4.1.2 *Nasalization in the vicinity of /n/*

When followed by a sibilant, /n/ is mostly realized as nasalization of the preceding vowel, e.g.

(26) *Nasalization when /n/ precedes a sibilant*

phonetic		gloss
[ˈyĩːʃi]	<i>yíŋʃi</i>	to beg
[aˈɣɑfʃiːʃa]	<i>ayáŋʃa</i>	bone (kind of)
[ˈgɔːʃi]	<i>gónʃi</i>	snake
[ˈmáːzarnat]	<i>mánzarnat</i>	bright green leather
[aˈtæːzi]	<i>atánzi</i>	snack

2.4.1.3 *Devoicing of voiced fricatives*

Due to regressive assimilation, voiced fricatives are devoiced when followed by a voiceless consonant, cf. the following examples with /ɣ/.

(27) *Devoicing of /ɣ/ lexeme internal*

phonetic		verbal noun	gloss
[ˈjɪxsər]	<i>yíɣsər</i>	<i>ayásar</i>	to jump down on / jumping down on
[ˈjɪxʃɪd]	<i>yíɣʃɪd</i>	<i>ayáʃad</i>	be ruined / accident

[ˈjɪxfəl]    *yíyʃəl*    *ayáfal*    be locked / locking

Similarly, the element *ay-* (first person singular subject ciltic) is pronounced [ax] when preceding a Mood-Aspect-Negation morpheme starting with a voiceless consonant.

(28) *Devoicing of /y/ at morpheme break*

phonetic		morpheme	gloss
[axsə'wi]	<i>ay=sə-wí</i>	1S=NEG.IMPERF-kill	I won't kill
[axtə'wi]	<i>ay=tə-wí</i>	1S=FUT-kill	I will kill

Cf. the perfective negation *nə-*, before which *y* is retained.

[aynə'wi]	<i>ay=nə-wí</i>	1S=NEG.PERF-kill	I did not kill
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A special case is provided by the imperfective morpheme IMPERF *b-*, which becomes a voiceless fricative /f/ when followed by a voiceless consonant. Find the examples under (3.1.4.2).

2.4.1.4 *Sibilant harmony*

We have not found mono-morphemic words that contain two different sibilants (*/s/*, */z/*, */ʃ/*, */ʒ/*, */s/*, */z/*). Place of articulation and voicing of these sounds are the same within the word.

(29) *Examples of sibilant harmony*

	gloss
<i>azágaz</i>	wild cat ( <i>Felix silvestris</i> )
<i>ázanzo</i>	milk (kind of)
<i>áazəz</i>	vulture, sp.
<i>ažámmazra</i>	bee-eater, sp.
<i>afásas</i>	stick of <i>Calotropis procera</i>
<i>alxasáyis</i>	amulet (kind of)
<i>faşúş</i>	to be light (not heavy)
<i>aşáanəş</i>	rope (kind of)
<i>áffaf</i>	turban (kind of)
<i>kérffjin</i>	to be coarse
<i>ažáazib</i>	phantom
<i>zízil</i>	to draw (water from well)

Sibilant harmony also applies to loanwords from French originally containing different sibilants. In such loans, harmony of the sibilants is regressive and the last sibilant in the word enforces the preceding sibilants, e.g. *ʃakóʃ* 'army bag' (< *sacoché*), *sosét* 'socks' (< *chaussettes*).

Sibilant harmony in causative derivations will be treated under (3.1.3.2.).

#### 2.4.1.5 Irregular loss and assimilation of /-k/

Two frequently used verbs show irregular loss or assimilation of /k/. The first example is *yéekat* (< *yed* + *-kat*) 'to return here'. The second example is *yíkkəl* (< *yídkəl*) 'to lift up'. The original consonants are found in the verbal noun *adákal* 'elevation'.

#### 2.4.1.6 Optional consonant metathesis

In a few words optional consonant metathesis has been observed. When asked about it, speakers would invariably claim that both words mean the same and either could be used.

##### (30) Examples of metathesis

<i>méyrəs</i> ~ <i>méryəs</i>	keep the character of
<i>táyrast</i> ~ <i>táryast</i>	kind of white stone found in the region of Kidal
<i>záyraf</i> ~ <i>záryaf</i>	to have big spots (for sheep, goat, camel)
<i>irédyan</i> ~ <i>iréydan</i>	old weak goats (sg <i>aráday</i> )
<i>táyhast</i> ~ <i>táhyast</i>	kind of camel saddle

Other words with the similar consonant combinations like *zayrí* 'day', *áyrāw* 'kind of yoke', *áyrəm* 'town, village' *áyri* 'aborted animal' do not have variants with metathesis.

Another case of optional metathesis is found with the verb 'to respond' *wázab* which is also heard as *zázab*.

#### 2.4.1.7 Long consonants at morpheme boundaries

In a number of contexts, morpho-phonological consonant lengthening takes place in intervocalic position at morpheme boundaries. It is not entirely clear what role is played by stress and both lexical stress and noun phrase intonation sometimes seem to have influence on consonant lengthening. The morphemes concerned are the genitive

*n*, the Mood-Aspect-Negation markers *m-* and *b-* and the particle *ag* ‘son of’. Moreover, lengthening takes place with the initial consonant of a verb in the unmarked perfective aspect.

#### 2.4.1.7.1 *n* ‘genitive’ and *ag* ‘son of’

When the genitive marker *n* occurs in intervocalic position, this consonant is lengthened.

##### (31) *Intervocalic genitive n*

<i>borá nn áa-yíl</i>	‘at the right hand side of a person’
person GEN SG-right.side	
<i>húgu nn ámmas</i>	inside a tent
tent GEN interior	
<i>ayó nn a-ffóo-da</i>	that (only) one
DET GEN SG-one-DIC	

This also applies to the possessive pronouns *ni=n* ‘your’ and *i=n* ‘their’ when followed by a vowel-initial noun.

##### (32) *Possessive pronoun*

<i>ní=nn a-náarag</i>	your spouse
2s=GEN SG-neighbour	
<i>í=nn i-náarag-an</i>	their spouses
3p=GEN PL-neighbour-PL	

The shape of the two first person possessive pronouns prompts for other changes (2.4.2.4). *ay=n* ‘his/her/its’ and di-syllabic *andə=n* ‘your(pl)’ do not undergo lengthening.

The particle *ag* ‘son of’ used in personal names behaves the same way, i.e., /g/ is lengthened before vowel initial names, e.g., *agg Abdulay* ‘Son of Abdulay’.

#### 2.4.1.7.2 Mood-Aspect-Negation markers and unmarked perfectives

When preceded by a vowel, the Mood-Aspect-Negation markers *b* ‘imperfective’ and *m* ‘subjunctive’ are lengthened. This is found, among others, when they are – as is normally the case – preceded by a pronoun clitic.



## (33) Imperfective b- lengthened

[aʎa'b:əgməm]	<i>aʎa=bb-əgməm</i>	'I chew (tobacco)'
[nɪ'b:əgməm]	<i>ni=bb-əgməm</i>	'you chew (tobacco)'
[a'b:əgməm]	<i>a=bb-əgməm</i>	's/he chews (tobacco)'

## (34) Subjunctive m- lengthened

[aʎa'm:əgməm]	<i>aʎa=mm- əgməm</i>	'that I chew (tobacco)'
[nɪ'm:əgməm]	<i>ni=mm-əgməm</i>	'that you chew (tobacco)'
[a'm:əgməm]	<i>a=mm-əgməm</i>	'that s/he chews (tobacco)'

More discussion on these morphemes is found under 3.1.4.2.

In positive perfective forms, where there is no overt Mood-Aspect-Negation marker, the initial consonant of the verb stem is lengthened under the same circumstances.

## (35) Initial consonant of verb lengthened

[aʎa'd:əbətə]	<i>aʎa=ddəbət-a</i>	'I can do it'
[nɪ'd:əbətə]	<i>ni=ddəbət-a</i>	'you can do it'
[a'd:əbətə]	<i>a=ddəbət-a</i>	's/he can do it'
[aʎa'j:ɪbətə]	<i>aʎa=yyíbət-a</i>	'I snatched it'
[nɪ'j:ɪbətə]	<i>ni=yyíbət-a</i>	'you snatched it'
[a'j:ɪbətə]	<i>a=yyíbət-a</i>	's/he snatched it'

With monosyllabic stems that carry the stress on the only syllable of the verb, this lengthening appears very strongly. With very long verbal stems, and disyllabic stems with the stress on the second syllable, it appears to be less strong.

Verb stems preceded by vowel final elements, e.g. the focus marker *nə*-, the determiner *aʎo* and the question word *ci* ('what/who'), show the same effects as observed with the subject pronoun clitics.

## (36) Other contexts that provoke consonant lengthening

<i>áŋga</i>	<i>nə-yyíddər-a</i>	It's him who held it.
	3s.EMP FOC-hold=3s	
<i>áŋga</i>	<i>nə=bb-əddər-a</i>	It's him/her who holds it.

3s.EMP FOC-IMPERF-hold=3s		
<i>aɣo yyáhag-an</i>		the one that lasted
DET last-ADJZR		
<i>surgóy aɣo bb-éddər</i>		the woman he is married to
woman DET IMPERF-hold		
<i>cí wwí=a</i>		Who killed him/her/it?
what/who kill=3s		
<i>cí bb-éddər=a</i>		Who is married to her?
what/who IMPERF-hold=3s		

#### 2.4.1.8 Word-final V-shortening

In word-final position the contrast of vowel length is neutralized. The following examples illustrate this point. Adding the plural morpheme permits the realization of what could be considered an underlying long V:

##### (37) Word final V-shortening

V	singular	plural	gloss
I	<i>bitígi</i>	<i>bitigíitan</i>	shop (< Fr 'boutique')
	<i>ñáají</i>	<i>ñáajítan</i>	bone (kind of)
E	<i>fəɽdɛdɛ</i>	<i>fəɽdɛdɛetan</i>	bat
	<i>íizace</i>	<i>izácenan</i>	youth
A	<i>tégna</i>	<i>təgnáatin</i>	reproach
	<i>kərtéba</i>	<i>kərtébatan</i>	trousers
U	<i>heebú</i>	<i>heebúutan</i>	marketplace
	<i>bukturú</i>	<i>bukturútan</i>	toad
O	<i>kádago</i>	<i>kadagóotan</i>	tree, sp.
	<i>aróoko</i>	<i>aróokotan</i>	saddle (kind of)

Note that in all the examples above the stress lies on the long V, even when the singular had the stress on another V. This may have some influence on the length also.

2.4.1.9 *V-shortening in closed syllables*

Vowel length is neutralized in closed syllables. The underlying length of the vowel shows up when the plural morpheme is suffixed and the formerly final closed syllable is opened.

(38) *V-shortening in closed syllables*

singular	plural	gloss
<i>tafágít</i>	<i>təfágiitan</i>	metal point of sheath
<i>ajím</i>	<i>ijíiman</i>	a thousand
<i>aláteḍ</i>	<i>iláteedaṇ</i>	rib / side
<i>aháčet</i>	<i>iháceetan</i>	tent awning
<i>tadágat</i>	<i>tədəgaatin</i>	place of pasture
<i>abákaḍ</i>	<i>ibákaadaṇ</i>	sin

Some rare occurrences of long vowels in closed syllables can be explained as due to consonant elisions. Often the lost consonant reappears in a morphologically changed form.

(39) *Long vowels in closed syllables*

lexeme	gloss	plural	Tamasheq cognate
<i>abóoy</i>	water skin	<i>ibíyay</i>	(< W: abäyoŷ/ibəyay)
<i>aniil</i>	ostrich	<i>iníyal</i>	(< W: anil/inəyal)
<i>akáat</i>	mistletoe, sp.	<i>akáwat</i>	(< W: akăwăt) variant of the same

2.4.1.10 *Vowel contractions*

There are several cases of vowel contractions over word or morpheme boundaries. We will illustrate this in the following section in situations with a) verb and pronoun enclitic; b) suffixes on verbs; c) plural morphemes on nouns; d) noun and demonstrative; e) V-initial nouns preceded by V-final words.

The overall rule of vowel contractions is as follows:

(40) *Vowel contraction rule*

$$V_1\# + V_2 \rightarrow V_2$$

The outcome of the contraction is a short vowel when  $V_2$  is short and a long vowel when  $V_2$  is long. We will treat the different occurrences in detail and then make some amendments to this first general rule.

2.4.1.10.1 Verb and pronoun enclitic

The most regular and frequent elision happens at the end of V-final verbs when personal pronouns follow the verb. In this case, the final V of the first word is dropped.

- (41) a) *a-ddumb(ú)=a.* [ad:um'ba]  
 3s=cut=3s  
 he killed it.
- b) *a-ddumb(ú) áari hé.* [ad:um'bæ:ri'he]  
 3s=cut 1p thing  
 he killed something for us.
- c) *a-ddumb(ú) íi-se feejí* [ad:um'bi:s(ə)ɛ:'dʒi]  
 3s=cut 3p=DAT sheep  
 he killed a sheep for them.

In the transcription in this work we will write the dropped final V in brackets.

Verbs that drop the last vowel all have a Songhay background.

(42) *Verbs dropping final /u/*

Tadak	gloss	Songhay (KCH)
<i>dudú</i>	to pour	door
<i>hunú</i>	to leave from	hun
<i>tunú</i>	to get up	tun
<i>hurrú</i>	to look for	wir
<i>dumbú</i>	to cut	dumbu
<i>gunḡú</i>	to guide (animal)	gurje
<i>húuru</i>	to enter	huru/a (KS)
<i>zumbú</i>	to get down	zumbu (KS)
<i>zurú</i>	to run	zuru (KS)

/u/-final Verbs of Tamasheq origin seem to have an underlying /w/ that is normally realized as /u/. These verbs do not drop the last vowel when followed by a pronoun, but change it into a glide before the pronoun.

- (43) *a=b-fúgu*                      *áa=ka*              *[ab'fugu<sup>w</sup>a:ka]*  
 3s=IMPERF-look.down      3s=LOC  
 s/he looks down on it.

The following verbs behave the same way:

- (44) *Tamasheq cognates surfacing /w/*

Tadaksahak	gloss	Tamasheq (W)
<i>fífu</i>	to make drink	fǎfwu
<i>fídu</i>	to assemble	fídəw
<i>fúgu (he) ka</i>	to look down on (sth.)	fugu (WW)
<i>súku</i>	to light (fire)	suku (WW)

Parallel to the back vowel /u/, the front vowel /i/ behaves differently according to etymology. Songhay cognates drop the final /i/ while Tamasheq cognates surface a semi-vowel /y/ when a pronoun follows.

- (45) *Verbs dropping final /i/*

Tadak	gloss	Songhay (KCH)
<i>keedí</i>	to mount (animal)	kaar
<i>yéeri</i>	to vomit	yeer
<i>diní</i>	to take	din
<i>jeejí</i>	to hang	deejí

- (46) *Tamasheq cognates surfacing /y/*

Tadak	gloss	Tamasheq (W)
<i>yírzi</i>	to stick sth. into	ərzəy
<i>yíyli</i>	to go / turn around	əyləy
<i>yínʃi</i>	to beg	aŋsəy
<i>yílbi</i>	to take out of	əlbəy

Final /e/ and /o/ on verbs are so rare that not many observations can be reported for these vowels. See below for *mó* 'hear' (other items: *babó* 'be numerous', *sotóroro* 'drop regularly').

Verb-final /a/ is dropped both in verbs of Songhay and in verbs of Tamasheq origin. For example, when the plural clitic =i is added to these verbs the final /a/ is dropped. The stress of the final syllable of the verb is carried over to the pronoun enclitic, e.g.

- (47) *a=kkun(á)=i*      s/he found them.  
*a=ʒʒil(á)=i*      he cleaned them (wells) out

(48) *Verbs dropping final /a/*

Tadak	gloss	etymology
<i>guná</i>	to see (s.b.)	KCH: guna
<i>habá</i>	to harvest (wild grass)	KCH: haabu 'gather'
<i>báaya</i>	to want / to love	KCH: baa
<i>hiná</i>	to cook	KCH: hina
<i>kuná</i>	to find	KCH: kumna 'pick up'
<i>ɲá</i>	to eat	KCH: ɲaa
<i>yeezá</i>	to skin (animal)	W: azu 'to skin'
<i>yismá</i>	to clean (intestines)	W: asəṃ 'clean by rubbing'
<i>zaaná</i>	to churn (butter)	D: əss-unda 'churn' W: azənu 'calabash to churn butter'
<i>ʒilá</i>	to clean out (well)	D: əšla 'clean out (well)'

One notes, however, one complication, When the second element is the enclitic =a 'he/she/it', forms with and without the enclitic are pronounced differently. The forms without the enclitic have a final unreleased glottal stop, while those with the enclitic don't, cf.

- (49) *a-ddá[ad:æʔ]* it is done!

*a-ddá=a* [ad:æ] s/he did it.

In a running text it is not easy always to hear the 3s pronoun. In some of our transcriptions we note the possibly present pronoun in brackets with a question mark (=a?).

2.4.1.10.1.1 *Monosyllabic stems*

Vowel-final monosyllabic verbs present different behavior as to their final vowel when followed by a vowel-initial element. Note that all these verbs have a Songhay background. In a first group, the vowel is deleted according to the general rule. This is found in three verbs, *da* 'to do', *ɲa* 'to eat', *na* 'to give', and *ci* 'to say', e.g.

(50) *Deletion of final -a in na 'to give'*

	verb + 1s	+3s
phonetic	[an:a'ɣaj...]	[a'n:æ:s(e)...]
	<i>a-nn(a) ayáy</i>	<i>a-nn(a) áa-s(e)</i>
morphemes	3s=give 1s.IO	3s=give 3s=DAT
gloss	s/he gave me...	s/he gave him...

(51) *Deletion of final -i in ci 'to say'*

	verb + 1s	+3s
phonetic	[ac:a'ɣaj]	[a'c:æ:s(e)]
	<i>a-cci ayáy</i>	<i>a-cci áa-se</i>
morphemes	3s=say 1s.IO	3s=say 3s=DAT
gloss	s/he said to me	s/he said to him

In a second group, all concerning *i*-final verbs, the vowel is maintained and a palatal glide is inserted. This concerns the verbs *wi* 'to kill', *ɜ́i* 'to kick', and *fi* + PRN *ka* 'to be lost to somebody'.

(52) *No deletion of final -i in ɜ́i 'to kick'*

	verb + 1s	+3s
phonetic	[a'ɜ́:i'a'ɣaj]	[aɜ́:i:'a]
	<i>a-ɜ́ɜ́í ayáy</i>	<i>a-ɜ́ɜ́i-á</i>
morphemes	3s=kick 1s	3s=kick=3s
gloss	s/he kicked me	s/he kicked him

Finally, the verb *mo* 'to hear' keeps its vowel in all contexts except with the 3p pronoun *i*, e.g.

## (53) Treatment of final -o in mo 'to hear'

	verb + 1s	+ 2s
phonetic	am:o'ɣaj	a'm:o:na
	<i>a=mmo (a)ɣáy</i>	<i>a=mmó (a)na</i>
morphemes	3s=hear 1s	3s=hear 2s.DAT
gloss	s/he heard me	s/he heard you
	+3s	+3p
phonetic	a'm:o:s(e)	a'm:i:s(e)
	<i>a=mmó (aa)=s(e)</i>	<i>a=mm(ó) ii=s(e)</i>
morphemes	3s=hear 3s=DAT	3s=hear 3p=DAT
gloss	s/he heard him	s/he heard them

It will be shown later (2.4.1.10.5) that /o/ also overrides vowels of other morphemes.

2.4.1.10.2 Noun and demonstratives *asénda, áyda, adí, óoda*

Following the general rules of vowel-coalescence, vowel-final nouns that are followed by one of the determiners beginning with a vowel regularly lose their final vowel in favor of the vowel of the determiner.

(54) *lizac(e) asénda zá, ayo dǎǎǎǎ ay=n hawrú...*  
 ['i:zatʃa'sɛndə...]

youth DEM.FAR LC DET spice 3s=GEN meal...  
 so that young man who spiced his meal...

(55) *andə-gguná gand(a) áyda... [gan'dɛjdə]*  
 2p=see land DEM.PROX  
 you(pl) see this land (here)...

(56) *ni=yy-igrá h(e) adí? [ha'di]*  
 2s=understand thing ANA  
 do you understand this?

(57) *...ízac(e) adí a-şşót-kat... ['i:zatʃa'di]*  
 youth ANA 3s=jump-VEN  
 ...this youth jumped...

(58) *a-báara guss(ú) óoda. [gu's:o:də]*  
 3s=be hole DEM.NEAR  
 he is in this hole.



## 2.4.1.10.3 Vowel-initial words preceded by vowel-final words

Final vowel-elision happens constantly where vowels meet each other at word boundaries.

To illustrate just a short utterance said by a visiting person:

- (59) [iʒwar'tʃidʒa'd:æ? / ha'dizaxtəjid'wa'hidʒɛn]  
 iʒwar cij(i) a-ddá h(e) adí z(a) ay-tə-yidwá hij-en  
 almost night 3s=do thing ANA LC 1s=FUT-return camp-PL  
 it is almost night, so I will return home.

Unless there is a short pause as in this example to mark the end of the first statement, final vowels are dropped in many places: noun + conjugated verb; discourse particle + conjugated verb. In this utterance, two lexemes are recognized only by a single consonant that is left in the realization.

There seems to be a hierarchy higher than word level that rules over the rhythm of utterances. We have not studied this topic to a degree that we could give firm indications of rules that govern.

## 2.4.1.10.4 Exceptions

There are two words in the language that do not follow above rules of elision. One of them is the DET *ayo*. Final /o/ always overrides the following vowel when it is part of the same noun phrase, e.g.

- (60) zamá aarú ayo (a)yda a-ttén [ʔæʷa'yojdə]  
 after man DET DEM.PROX 3s=arrive  
 after this man (here) arrived...

When *ayo* is the last element of a NP, as before relative clauses, the following pronouns keep their initial vowel and the final /o/ sound is also produced. In that case, a glide is inserted between the two words, e.g.

- (61) áffayal ayo a-mmáy nin ka a-bbén. [ayoʷa'm:ɛj]  
 work DET 3s=have 2s LOC 3s=be.finished  
 the work he has for you is finished.

The other word with exceptional behavior is *he* 'thing', which keeps its final vowel when it is in subject position or when it occurs in a heavily marked head of a noun phrase. In this case the second vowel is deleted. Consider below examples.

- (62) *hé (a)-ssínnihil áa-se kuná.*  
 [‘he:’s:in:ɬi’læ:seku’na]  
 thing 3s=be.much 3s=DAT find.NV  
 he was very ill (*he* is used here as a euphemism for  
 sickness)
- (63) *he (a)ɣ(o) óoda zá... [he’ɣo:də’za...]*  
 thing DET DEM.NEAR LC  
 so, this...

Yet consider the occurrence in (56) above, where the whole noun phrase is almost pronominal in its character, and where the regular vowel contraction takes place.

#### 2.4.1.10.5 Suffixes on verbs

There are two vowel-initial suffixes which appear on verbs, These are the adjectivizer AJDZR *-an* and the directional allative ALL *-an*. We will treat their influence on the verb-final vowels one by one.

An /i/ preceding the suffixes is not dropped; instead a semivowel [j] appears between the basis and the suffix. One reason for this behavior could be the fact that some of the verb roots have an underlying final consonant *-y#* which is realized as V (see ‘Final V-shortening rule’). Etymologically many, but not all, of these can be traced to Tamasheq roots with final /y/. Adding a V-initial morpheme allows this final C to be realized.

#### (64) *final -i*

Tadak	with suffix	gloss	etymology
<i>jí</i>	<i>jíjjiyán</i>	be lost / lost	SonKS: jii
<i>háaʃi</i>	<i>háaʃiyan</i>	to look there	?
<i>mátti</i>	<i>máttiyan</i>	to change	TamW: máttäy
<i>yíyli</i>	<i>yíyliyán</i>	to turn around (there)	TamW: əɣləy

The only exception we have in our data is the verb *keení* ‘to sleep’ (KCH: /kani/). In its meaning ‘to sleep away from home’ it is realized *keenán* (< keení+-an).

Verbs of Songhay origin with final /u/ normally drop their final vowel before the vowel of the suffix. Verbs of Tamsheq origin often have an

underlying final /-w/ that reappears when the V-initial morpheme is added.

(65) *final -u*

Tadak	with suffix	gloss	etymology
<i>hunú</i>	<i>hunán</i>	leave from there	KCH: hun
<i>húuru</i>	<i>húuran</i>	enter there	KS: huru/a
<i>kukú</i>	<i>kukán</i>	long (adjective)	KCH: kuu
<i>múnsu</i>	<i>munsuwan</i>	be nourished	W: mǎnsǎw
<i>yóru</i>	<i>yoɾuwan</i>	be used (clothes)	W: əɾəw
<i>yísku</i>	<i>yískuwan</i>	be dried up	W: əsɬəw
<i>yúhu</i>	<i>yuhuwan</i>	be born	W: ihu

In the case of *a*-final verbs, the two vowels are coalesced:

(66) *final -a*

Tadak	with suffix	gloss	Songhay KCH
<i>ceená</i>	<i>ceenán</i>	be small / small	ciina
<i>diŋgá</i>	<i>diŋgán</i>	forgetfulness / to forget	dinaa

The rare verbs that end in /o/ have different behavior (see also 2.4.1.10.1.1).

(67) *final -o*

Tadak	with suffix	gloss	Songhay KCH
<i>babó</i>	<i>babón</i>	'be numerous/many'	bobo 'much'
<i>kó(y)</i>	<i>kón ~ koyán</i>	'to leave there'	koy
<i>mó</i>	<i>monán</i>	'to hear there'	mom

## 2.4.1.10.6 Plural morphemes on nouns

The plural morpheme *-en*, which is used with nouns of Songhay origin, causes regular deletion of a stem-final vowel, e.g.

(68) *plural morpheme -en*

noun + PL	realization	gloss
-----------	-------------	-------

noun + PL	realization	gloss
<i>borá + en</i>	<i>borén</i>	'person / people'
<i>huuwá + en</i>	<i>huuwén</i>	'milk / kinds of milk'
<i>tugúdu + en</i>	<i>tugúden</i>	'tree sg/pl'
<i>bundú + en</i>	<i>bundén</i>	'stick sg/pl'
<i>hamborí + en</i>	<i>hamborén</i>	'mortar sg/pl'
<i>biidí + en</i>	<i>biidén</i>	'bone general sg/pl'

This process of adding the plural morpheme brings about additional changes to the last consonant of the stem. In many, but not all, nouns with a velar /k/ or /g/, the velar is changed to a palatal before the suffix *-en* (cf. also 2.2.3.2) e.g.

(69) *alternation k/g with c/j*

noun + PL	realization	gloss
<i>hiṅká + en</i>	<i>hiṅkén</i>	'two, sg/pl'
<i>gungú + en</i>	<i>gungén</i>	'belly sg/pl'
<i>tungú + en</i>	<i>tungén</i>	'turban (kind of) sg/pl'
<i>farká + en</i>	<i>farcén</i>	'donkey sg/pl'
<i>baṅgú + en</i>	<i>baṅjén</i>	'well sg/pl'
<i>aṅgú + en</i>	<i>aṅjén</i>	'place (general) sg/pl'
<i>haṅgá + en</i>	<i>haṅjén</i>	'ear sg/pl'

2.4.1.11 */ay/ < /a/*

In the first element of a compound (mainly numerals), word-final /a/ is changed to /ay/. As shown below, this does only concern /a/-final elements, in C-final 'fifty' an epenthetic schwa is inserted.

(70) <i>iffá + tamerwiṅ</i> seven + ten.PL	>	<i>ifféy-tamerwiṅ</i> 'seventy'
<i>ṭaaśá + tamerwiṅ</i> nine + ten.PL	>	<i>ṭaśéy-tamerwiṅ</i> 'ninety'
<i>ḡammúf + tamerwiṅ</i> five + ten.PL	>	<i>ḡammúf-ə-tamerwiṅ</i> 'fifty'

When the enclitic *a-* 'he/she' joins the genitive *n*, /a/ becomes [ɛy].

(71)  $a + n$  >  $ay=n$  'his, her'  
 3s + GEN

### 2.4.2 Resyllabification

There are several environments in the language that lead to resyllabification. The most frequent is adding the plural morpheme, then there are conjugations and also some possessive contexts demand it. The following illustrates the different environments.

#### 2.4.2.1 Plurals

Adding morphemes to a stem (e.g. plural) may lead to restructuring of the word.

##### (72) Plurals

singular	plural	gloss
<i>aarú + en</i>	<i>arwén</i>	man/men
<i>éelaw + an</i>	<i>élwan</i>	elephant/s
<i>íiləs + an</i>	<i>ílsan</i>	tong/s
<i>báarar + en</i>	<i>bárren</i>	child/children

#### 2.4.2.2 2s combinations

A restructuring of syllables also happens in contexts where morphemes are joined together. Resyllabification takes place when *ní-* '2s' combines with MAN markers of the shape CV- with a voiceless initial consonant. '2s' is then realized *ən-*.

(73)  $ən-sə-báy-a$   
 2s-NEG.IMPERF-know=3s  
 don't you know it?

When the imperative particle *wa ~ ba* precedes this construction, the schwa is deleted.

(74)  $wá-(ə)n-sə-d(a)$  *ayáy* [*wansəda'ɣaj...*]  
 IMP-2S-NEG.IMPERF-do 1s.IO  
 don't do to me...

Apparently, a sequence of four CV syllables is not allowed in a word. The presence of the consonant /n/ is enough to identify the 2s pronoun.

The complementizer *sa* behaves in the same way when it precedes

words beginning with a voiceless initial consonant such as *kəlá* ‘once’ in the following example.

- (75) *tanáfust əs kəla aɣ-nə-mó (aa)-se*  
 story COMP once 1s=NEG.PERF-hear 3s=DAT  
 a story that I have never heard of.

#### 2.4.2.3 Compound numbers

Resyllabification also takes place in compound numerals, which may be due to the same constraint as above. Cf. the following example, in which four open syllables would follow each other. A short vowel is inserted between the two number units to allow proper pronunciation in slow speed.

- (76) *Resyllabification ‘thirty’*
- |                        |                            |
|------------------------|----------------------------|
| phonetic               | [ˈkɑɾɔtəˈmɛɾwɪŋ]           |
| underlying/slow speech | <i>kaarád-[ə]-təmɛɾwɪŋ</i> |
| morphemes              | three-ten.PL               |
| gloss                  | thirty                     |

The speakers do not seem to be conscious of this process. When they repeat slowly, they have no resyllabification. But as soon as the same person uses the word in a running conversation the resyllabified form is used.

#### 2.4.2.4 Possessive pronouns

The 1s and 1p possessive pronouns *aɣa-n* (1s=GEN) ‘my’ and *arə-n* (1p=GEN) ‘our’ are resyllabified when they precede a noun with an initial vowel. The second vowel in the pronoun is dropped and the genitive *n* forms a syllable with the following vowel of the lexeme.

- (77) *Resyllabification in possessive pronouns*
- |               |                        |                            |
|---------------|------------------------|----------------------------|
| pronunciation | morphemes              | gloss                      |
| [aɣnaˈna:rag] | <i>aɣ(a)-n anáarag</i> | my neighbor /<br>my spouse |
| [aɣniˈðu:lin] | <i>aɣ(a)-n idúulin</i> | my in-laws                 |
| [arnalˈmæn]   | <i>ar(ə)-n almán</i>   | our herd                   |
| [arˈniɣidan]  | <i>ar(ə)-n íyidan</i>  | our kids (goat)            |

The other possessive pronouns have a monosyllabic shape (*ni=n* 2s, *ay=n* 3s, *i=n* 3p) and do therefore not behave this way. *andə=n* (2p=GEN) 'your pl' has already a closed syllable and cannot be shortened by dropping the last V.

## 2.5 Stress

Tadaksahak shows clear evidence of lexical stress (cf. also Nicolai 1980). A stressed syllable is realized with a higher pitch and more powerful air stream than an unstressed syllable. Words with four and more syllables may also carry a secondary stress on another syllable.

Stress is lexical and unpredictable. Every lexical item has at least one syllable that carries the stress. Pronoun enclitics and grammatical morphemes may or may not have inherent stress.

Long vowels do not obligatorily carry the stress. However, when a long vowel is present, the stressed syllable can only be one syllable removed from it.

The speakers are aware of word stress and use this feature to create riddles by putting the stress on the wrong syllable to cause the hearer to misunderstand the utterance.

Over an utterance different rules are applicable than over the single word, i.e., the lexical stress may shift to some other syllable.

There are some stress patterns that are frequent and new imported vocabulary often follows such established patterns. Some morphemes provoke stress pattern changes when they join roots, e.g. causative *S(V)-* and derivator *t(a)-...-t*. We will discuss these stress changes in the morphology part of this work.

### 2.5.1 Stress in disyllabic words

In disyllabic words all stress patterns are possible. There is no influence of syllable shape on the possible stress patterns, e.g.

#### (78) Stress in (C)VC.CV words

<i>farká</i>	donkey	<i>gánda</i>	ground, earth
<i>kullú</i>	all	<i>gónfí</i>	snake
<i>dumbú</i>	to cut	<i>múgru</i>	to get built
<i>yidwá</i>	to return in afternoon	<i>yífri</i>	to feel

	<i>igdá ~ iddá</i>	because	<i>ágli</i>	ruminated grass
			<i>áwsa</i>	gall
(79)	<i>Stress in (C)VV.CV words</i>			
	<i>feejí</i>	sheep	<i>íini</i>	color
	<i>baarí</i>	horse	<i>óoda</i>	this
	<i>maará</i>	ten		
(80)	<i>Stress in (C)V.CV words</i>			
	<i>adí</i>	ANA (1 item)	<i>ána</i>	for you
			<i>ígi</i>	deed (2 items)
(81)	<i>Stress in (C)VC.CVC words</i>			
	<i>farkák</i>	to be fine/thin	<i>tábsit</i>	acacia flowers
	<i>katkót</i>	to simmer	<i>zálgat</i>	left hand side
	<i>harkúk</i>	always	<i>rúmsut</i>	to desire meat
	<i>kandín</i>	in the past	<i>wánjin</i>	to refuse
	<i>argán</i>	camel	<i>áhwar</i>	decoration (kind of)
	<i>alxér</i>	peace	<i>ádbug</i>	aardvark
(82)	<i>Stress in (C)VV.CVC words</i>			
	<i>kaaṛád</i>	three	<i>áanut</i>	stick to make fire
	<i>qaarán</i>	to study	<i>áadal</i>	wild cat, sp.
(83)	<i>Stress in (C)V.CVC words</i>			
	<i>ahún</i>	hold it!	<i>áhuḍ</i>	wind (kind of)
	<i>agúd</i>	moment	<i>báləq</i>	to be dusty
	<i>cijín</i>	last night	<i>bídaw</i>	canister
	<i>bəkáw</i>	jinn	<i>gédəm</i>	be upside down

### 2.5.2 Words with three syllables

In words with three syllables stress may be on any of the three syllables, e.g.

(84)	<i>Initial stress</i>	
	<i>hánaka</i>	unidentified item
	<i>túhuya</i>	camel's hump



<i>hédəði</i>	to be swollen
<i>ágala</i>	south
<i>áanibo</i>	child born out of wedlock
<i>éesawa</i>	attention, readiness
<i>áyaata</i>	monitor lizard
<i>áyaatir</i>	dried clay ground
<i>áadanan</i>	guts
<i>ágarŋo</i>	croup
<i>táfadla</i>	wart
<i>tánaflit</i>	wellness
<i>álanŋkam</i>	place behind (on animal)
<i>kérwəli</i>	to cling to
<i>bérzəkum</i>	to be wrapped up

Words with three syllables and a long initial vowel are rare. They always carry stress on the first syllable.

(85) *medial stress*

<i>tugúdu</i>	tree, wood
<i>bakáti</i>	packet (< English)
<i>yafáta</i>	to be in a clinch
<i>abútu</i>	navel
<i>adácel</i>	palm of hand
<i>yazúurag</i>	to be left free (animal)
<i>azámar</i>	lamb
<i>aláaku</i>	dirty water
<i>tayíiwa</i>	ashes (kind of)
<i>tabárda</i>	blanket (kind of)
<i>asílgí</i>	tobacco pouch (kind of)
<i>tabírjít</i>	ring (kind of)
<i>tadáamil</i>	interest
<i>abáarkot</i>	stomach (kind of)

(86) *final stress*

<i>mududú</i>	porridge (kind of)
<i>aragó</i>	radio (< French)

<i>adagíg</i>	crystallic powder
<i>ajeráw</i>	river / the River (Niger)
<i>hamborí</i>	mortar
<i>bukturú</i>	toad
<i>jinjirí</i>	to pray
<i>taŋgarí</i>	to lie
<i>kalkatáw</i>	corn

This stress pattern is the least frequent observed among the trisyllabic words.

### 2.5.3 Words with four and more syllables

The last syllable of a word with four syllables never carries the stress, the first only very rarely, e.g.

#### (87) words with four syllables

<i>mákkabani</i>	tree sp.
<i>abúgara</i>	gazelle sp.
<i>akásamba</i>	pit (kind of)
<i>akáskaabu</i>	ring (kind of)
<i>tawaláqan</i>	bone (kind of)
<i>amunǵúlu</i>	powder (kind of)
<i>aɣarzábbi</i>	acacia sp.
<i>taŋgalóoti</i>	barrel
<i>aməsyərrət</i>	part of intestins
<i>ɣərəŋɣərət</i>	to hit off its stem (cram-cram)

The following list shows words with four syllables derived from verb stems or words with the feminine/diminutive marker (*t...-t*), e.g.

#### (88) words with four syllables (multi-morphemic)

<i>amənookal</i>	king	(< <i>mənəkəl</i> to be king)
<i>amadáɣal</i>	blind person	(< <i>dáɣal</i> to be blind)
<i>tawənənəst</i>	dizziness	
<i>tatəwəqət</i>	spot (of dirt)	
<i>tatuŋúrut</i>	part of bed	
<i>tasəkərkərt</i>	awl (kind of)	(< <i>kərkər</i> to part (hair))

*tazanábat*   ewe having given birth twice in one year  
*tatanáqayt*   point in scripture  
 ~ *tatanáqit*

## (89) words with five syllables

*akayáŋkaya*   basket (kind of)  
*anafárafa*    crazy person       (< *firj-it* to be crazy)  
*tamazáydart*   patient woman (< *zázaydər* to be patient)  
*amandáraso* ~ plant sp.  
*amandárasal*  
*almukárkada*   tea (kind of) (<Arabic)  
*akawkáwajka*   woodpecker sp.  
*aragáragay*    stick of tent (kind of)  
*abalibáli*      sheep breed

Words with five syllables only carry stress on the penultimate or the ante-penultimate syllable.

### 3. Morphology

As the great majority of the Tadaksahak lexicon stems from Tamasheq, it is no wonder that – at least from the point of view of statistics – Tadaksahak morphology presents a strong similarity to Berber patterns. Linguistic literature about Berber languages has therefore been a source of inspiration in this part of the analysis. In fact, the Songhay part of the Tadaksahak lexicon comprises only about 300 lexemes. These lexemes consist of about 125 nouns and designate concrete things. Some 145 verbs are listed, of which many serve as verbal nouns as well. Other words of Songhay origin are two numerals, a few adverbs, pronouns, and appositions.

The vast majority of lexemes are of Tamasheq origin, and some of the religious terms come from Arabic. Many grammatical morphemes observed in Tadaksahak have cognates with Tamasheq morphemes.

The diversity of origins is often reflected in Tadaksahak morphology. This shows up in different morphological systems according to the etymological origin of the words. One special feature, which deserves mention already here, is the presence of a complicated system of suppletion in verb derivation (cf. Christiansen & Christiansen 2007). In Mainstream Songhay all derivations are suffixed. Many verbs accept the suffix /-(a)ndi/ which makes the causative of intransitive verbs (and a few transitives), and the factitive of verbs of adjectival quality (Heath, 1999a:164ff):

<i>ɲaa</i> eat	<i>ɲaa-ndi</i>	feed, let eat
<i>kan</i> be sweet	<i>kan-andi</i>	sweeten

In Tadaksahak, this suffix does not exist. Instead verb roots of Songhay origin are suppleted when they are causativized. The causative forms show very different roots, recognizable as Tamasheq cognates containing the causative sibilant prefix.

(1)	<i>ɲa</i> eat	<i>f-ikfa</i>	feed
	<i>bíibi</i> be black	<i>s-ékwəl</i>	make black

Similarly, in Mainstream Songhay the reciprocal construction uses the indefinite singular noun 'friend, mate' (Heath, 1999a:357):

*borey ga cere kar.*  
 person.PLDEF MAN friend hit  
 the people hit each other.

In Tadaksahak, however, the reciprocal is expressed with a nasal prefix as in Tamasheq.

(2) *yídyər* to be glued *m-édyər* to adhere to

As with causatives, Songhay underived verbs may be paralleled by Tamasheq-based derived forms (sometimes a double middle prefix), e.g.

(3) *kár* to hit *né-mm-anya* to hit/kill each other

For passive forms, Mainstream Songhay verbs take the same morpheme as for causative forms. In Tadaksahak, a Tamasheq-based derivation with a prefix *túw-* is used, and the same suppletion as signaled above is found, e.g.

(4) *wí* to kill *túw-anya* to be killed

### 3.1 The verb

In this chapter the grammatical category of the verb is discussed. First the verbs are grouped into different classes depending on their derivational behavior. Then the different verbal derivations are described. The following section is dedicated to inflection. The ensuing discussion shows arguments for the notion of a ‘verbal word’, a grammatical unit found in Tadaksahak very similar to the Tamasheq inflected verb.

#### 3.1.1 Verb root classes

The derivational and inflectional behavior of verbs differs depending on the etymology and shape the verb roots. The following section gives the different classes with some of their distinctive features.

The most remarkable split for verb classes is along etymological lines and separates the verbs into Songhay and Tamasheq cognates. On the surface the Songhay cognates may be recognized by

- a) CV or CVC pattern, e.g. *dá* ‘to do’, *mó* ‘to hear’,  
*mún* ‘to pour out’, *dút* ‘to pound’

- b) a nasal closing the first syllable of a di- or tri-syllabic root; e.g. *hambará* 'to fear', *cindí* 'to leave a rest', *gaŋgá* 'to prevent s.b. from'
- c) a long V in the initial syllable, e.g. *keení* 'to sleep', *báaya* 'to want / to love'
- d) two short Vs in a di-syllabic root with open final syllable, e.g. *didá* 'to walk', *tabá* 'to taste'

These patterns are not a safe parameter of recognition for the origin of the root. Moreover, some CVC verbs are indeterminate whether they are of Songhay or of Tamasheq stock, e.g. 'to be thirsty' Songhay: /faar / faaru/; Tadakshak: *fad*; Tamasheq: /ufad/ 'to be thirsty', /fad/ 'thirst'.

Derivation of Songhay-based verbs always means suppletion of the verb root. Some inflections are handled like that of the /y-/ initial verbs of the Tamasheq class.

The Tamasheq class of verb roots is divided into three groups. The criteria are surface shapes:

- a) first consonant is other than /y/, e.g. *lǝŋkǝm* 'to sit behind someone (on animal)'; *kǝmǝs* 'to tie up (sugar, coin) in corner of garment'
- b) first consonant is /y/, e.g. *yíǝn* 'to graze';
- c) tri- or polysyllabic roots with final /-ǝt/, e.g. *wǝlǝq-ǝt* 'to swallow in one gulp'

Group (a) behaves the most regularly. These roots do not drop consonants in either inflection or derivation.

Group (b) loses the initial /y/ in some inflections and all derivations.

Group (c) loses the final consonant in nominalization while the last syllable does not count for stress distribution.

The verb roots of Tamasheq origin with more than two syllables tend to have 'neutralized' vowels. Schwa is by far the most frequent in this class of verbs. Back consonants (e.g. ɣ, ŋ, ʁ) tend to 'attract' the low vowel [a] and palatalized consonants (e.g. /ʒ/, /ʃ/ and /y/) are mostly followed by [i].

The citation form of verbs in this work always shows an initial consonant for verb roots. The /y-/ initial verbs are remarkable in that they lose this initial consonant in some environments. It would seem that the 3<sup>rd</sup> person masculine singular perfective form in Tamasheq is the base for the Tadaksahak verb root. The inflected form of the root /dhl/ ‘to help’ in Tamasheq Tawəlləmmət is *idhāl* ‘he helped’ on which *a-yyídhəl* ‘he helped’ is based.

Many derivations in Tadaksahak consist of a prefixed consonant (e.g. *s(ə)*- ‘causative’). In such contexts, the initial /y-/ is dropped and the derivational consonant replaces it. *yíktəb* ‘to write’ becomes *s-éktəb* ‘to make write’. Note that the realization of the first vowel is now schwa.

A similar phenomenon occurs with inflectional prefixes consisting of only a consonant, e.g. *b*- ‘imperfective’ and *m*- ‘subjunctive’. The four y-initial Songhay roots expose the same behavior as the Tamasheq cognates. For the long consonants see 2.4.1.7.2.

(5) *Inflection of y-verbs*

perfective	imperfective	gloss	Etymology
<i>a-yyéeri</i>	<i>a-bb-éeri</i>	to throw up	Son: yeeri
<i>a-yyéd</i>	<i>a-bb-éd</i>	to return	Son: yee
<i>a-yyígməm</i>	<i>a-bb-égməm</i>	to chew (tobacco)	Tam: égməm
<i>a-yyizwál</i>	<i>a-bb-əzwál</i>	to mark (animal)	Tam: əzwəl
<i>a-yyaafá</i>	<i>a-bb-aafá</i>	to yawn	Tam: əfu

In the class of the /-ət/-final verbs, one remarks the change of the final syllable in verbal nouns. There are about 130 verbs of this type in our corpus.

(6) *Nominalization of -ət final roots*

verb root	verbal noun	gloss
<i>dələnɸ-ət</i>	<i>a-dələnɸ-u</i>	to be gooey
<i>fəlɸəq-ət</i>	<i>a-fəlɸəq-u</i>	to be flat
<i>fərənɸər-ət</i>	<i>a-fərənɸər-u</i>	to stir quickly

*ʒílliz-it*                      *a-ʒílliz-u*                      to wash (grain)

### 3.1.2 Verb stems

Verb stems may consist of a verb root and one or more derivational prefixes.

All underived verb roots of Songhay origin have a semantically similar counterpart of Tamasheq origin. This Tamasheq root appears when derivation or certain nominalizations happen. Such roots never occur without a derivational or nominalization morpheme and are therefore considered to be bound. In running texts these roots are glossed with BND for 'bound'.

#### (7) Examples of bound roots

root	Causative	Passive	noun/VN	gloss
<i>ɲa</i>	<i>f-íkfa</i>	<i>t-əkfa</i>	<i>a-f-ákf-o</i>	to eat
<i>kunǵú</i>	<i>s-íywən</i>	<i>túwa-s-íywən</i>	<i>t-éewan-t</i>	to be satiated

All derivational elements are prefixed to the verb root. For most roots one prefix occurs, however some roots allow for more than one prefix.

No particular study of possible forms and combinations has been made. The following chart is based on examples found in the corpus.

#### (8) Examples of verb stems with derivational morphemes

Pass	Caus	Reciprocal	(Caus.)	root	gloss	root
		<i>nə-má-</i>	<i>s-</i>	<i>əlkəm</i>	follow	
	<i>sə-</i>	<i>nə-mé</i>	<i>s-</i>	<i>əwər</i>	put on	
<i>tuwa-</i>	<i>sé-</i>		<i>ss-</i>	<i>əyra</i>	teach	



Reduplication takes place on stem as well as on root level.

### 3.1.3 Derivation

#### 3.1.3.1 *Labile verbs (verb roots with variable valency)*

A vast number of Songhay cognates can be used in an intransitive (often descriptive) and transitive (factitive) way. A number of Tamasheq cognates expose the same behavior.

In the list below, the first group (a) shows Songhay cognates.

The following verbs are Tamasheq cognates exposing the same characteristics. Group (b) shows the same stress pattern as stative verbs in Tamasheq, i.e. the last syllable has the stress. However, the verbs of group (c) have the stress on the first syllable and serve as intransitive (stative) verbs as well.

#### (9) *Simple verbs with two valencies*

	root	intransitive gloss	transitive gloss
a)	<i>bíibi</i>	be black	blacken
	<i>yáy</i>	be cold	make cold
	<i>bér</i>	be big	enlarge
	<i>ṭáy</i>	be moist	moisten
	<i>zén</i>	be old	make old
	<i>mán</i>	be close	approach
	<i>mór</i>	be distant	distance
	<i>dígdig</i>	be broken	break
	<i>mún</i>	be thrown out	throw out
	<i>lés</i>	be unclean	make unclean
b)	<i>yíymá</i>	be decorated	decorate (leather)
	<i>yiská</i>	be combed	comb
	<i>yilzá</i>	be shaved	shave
c)	<i>yíyfəl</i>	be locked	lock
	<i>yídray</i>	be decorated with metal	decorate with metal

root	intransitive gloss	transitive gloss
<i>yíləm</i>	be open	open
<i>yílkəḏ</i>	be braided	braid
<i>yíʃbər</i>	be spread out (to dry)	spread out
<i>yíssay</i>	be tied two together	tie two together
<i>yíyfid</i>	be out of use	put out of use

In summary we note that a fair amount of the Songhay cognates have a double valency. Some verbs of Tamasheq origin behave the same way.

### 3.1.3.2 Causative S(ə)-

The prefix *S(ə)-* makes the causative of intransitive verbs ('make sb. walk') and many transitive verbs ('make eat' > 'feed') and the factitive of verbs with descriptive qualities ('widen'). The prefix is of Tamasheq origin.

Many causativized transitive verbs involve a 'causee', somebody who is made to do something. This semantic role is marked with dative *sə*. See further discussion under Syntax 4.3.7

The causative morpheme is prefixed to the verb stem. It consists of a sibilant with a neutral vowel. Sibilant harmony is in effect and forces the causative prefix to take the same place of articulation and the same voicing as the sibilant present in the verb stem or root.

#### (10) Causative morphemes

	root contains
<i>z(V)-</i>	voiced alveolar fricative
<i>ʒ(V)-</i>	voiced palatal fricative
<i>ʃ(V)-</i>	voiceless palatal fricative
<i>s(V)-</i>	elsewhere

#### (11) Sibilant harmony

verb root	causative	gloss
<i>m-ézəg</i> <sup>1</sup>	<i>zə-mm-əzəg</i>	to race a race (camel) / to be made to race
<i>m-íʒi</i> <sup>1</sup>	<i>ʒí-mm-íʒi</i>	to be separated /

		to separate
<i>yínjff</i>	<i>f-ínjff</i>	to be filtered / to filter
<i>yíbsa</i>	<i>s-ébsa</i>	to be saved / to save

All y-initial verbs drop the initial consonant and replace it with the consonant of the prefix. Verbs beginning with ‘core’ consonants add a syllable with a vowel of the same quality as the rest of the root.

Note 1: For both, *m-ízi* and *m-ézæg* an initial /m-/ morpheme with a semantic “middle”-component are recognizable. They are no longer separable from the root. \**yízi* and \**yízæg* do not exist.

Adding a morpheme to the root, which equals an extra syllable in some cases, causes stress shifts. The stress is on the causative morpheme syllable unless this leaves three unstressed syllable to the right. In this case the stress moves on the ante-penultimate syllable.

(12) *Stress on causative stems*

verb root	causative	gloss
<i>yáhar</i>	<i>s-áhar</i>	to be covered / to cover
<i>yídbəl</i>	<i>s-édbəl</i>	to be in heaps / to heap up
<i>yánfəd</i>	<i>sá-yanfəd</i>	to be hobbled (kind for camel) / to hobble
<i>gərəff-ət</i>	<i>sə-gərəff-ət</i>	to kneel / to make kneel

3.1.3.2.1 *Causative with suppletion*

For all verbal derivation the etymology of the roots is of crucial importance. Verb roots of Songhay origin cannot take derivational morphemes. These roots are replaced by suppletive roots in order to take derivational prefixes. In such suppletive forms, both the prefix and the root have a Tuareg background.

The examples below show verbs with (a) a descriptive meaning, (b) other intransitive verbs, and (c) transitive verbs.

(13) *Some examples of suppletion of Songhay roots*

	Songay root		causative	gloss
a)	<i>bér</i>	to be big	<i>f-ámɣar</i>	to honor (person) to respect (person)

	<i>qóq</i>	to be dry	<i>s-éγər</i>	to dry
	<i>kuŋgú</i>	to be full	<i>s-íywən</i>	to eat enough
b)	<i>kán</i>	to fall	<i>f-əḍḍər</i>	to make fall
	<i>héw</i>	to cry	<i>s-əlhá</i>	to make cry
	<i>gorá</i>	to sit	<i>f-áyam</i>	to make sit
c)	<i>záw</i>	to take	<i>f-úuwa</i>	to send s.th. to s.b.
	<i>taŋgá</i>	to lead (animal)	<i>f-əwət</i>	to make go (animal) ahead of s.b.
	<i>dút</i>	to pound	<i>ʒ-íygiʒ</i>	to make s.b. pound

There are over one hundred verbs in our corpus that have a suppletive root for the causative (as well as the other derivations treated below) (see Appendix II).

### 3.1.3.2.2 *Exceptions for sibilant choice*

The large majority of the causative forms are covered by the rules of sibilant harmony given above.

However, there exist a number of roots that do not follow these rules. In particular the choice of a sibilant when no sibilant is present in the root poses some problems. Our examples show the following tendencies for roots that contain no sibilant:

- 1) Roots without sibilant starting with two voiced consonants may take /z/

#### (14) *Roots with voiced consonants*

root	causative	gloss (of the causative)
<i>bələl</i>	<i>zə-bbələl</i>	to set at ease
<i>bərmət</i>	<i>zə-bbərmət</i>	to change money
<i>dələg</i>	<i>zə-ddələg</i>	to make decorate (leather/face)
<i>gənnəti</i>	<i>zə-gənnəti</i>	to make bend one's head backwards
<i>wulətwulət</i>	<i>zu-wulətwulət</i>	to make bend (wind)

- 2) Roots without sibilant containing pharyngeal sounds including /ɣ/, /x/ and /w/ may take /ʃ/ (cf. a) below). The same is true for some of the supplet roots that contain a pharyngeal consonant. The examples are under b) below.

(15) *Roots with pharyngeal consonants*

	root	causative	gloss (of the causative)
a)	<i>yáñala</i>	<i>f-áñala</i>	to make pure (religiously)
	<i>yáʃad</i>	<i>f-áʃad</i>	to make straight
	<i>yíxlək</i>	<i>f-éxlək</i>	to create
	<i>yilwá</i>	<i>f-ilwá</i>	to make wide
b)	<i>bér</i>	<i>f-ámɣar</i>	to honor (person); to respect (person)
	<i>káŋ</i>	<i>f-édɖər</i>	to make fall
	<i>báaɣa</i>	<i>f-éera</i>	to make s.b. love s.b.
	<i>záw</i>	<i>f-úuwa</i>	to send s.th. to s.b.
	<i>tangá</i>	<i>f-éwət</i>	to make go (animal) ahead of s.b.

There are a few other irregular forms:

(16) *Irregular forms*

	root	causative	gloss (of the causative)
	<i>rayís</i>	<i>ʃé-ryəʃ</i>	to make cheap / to facilitate
	<i>déeraw</i>	<i>sú-dru</i>	to make have in common

A few Songhay cognates take the Tamasheq derivational prefix without suppletion. This exceptional behavior is probably due to their shape, which (falsely) suggests a Tamasheq origin. Some of these verbs start with /y-/, which in most cases indicates a Tamasheq cognate. One root has an initial sibilant /z/ that apparently is interpreted as a causative morpheme and therefore is allowed to take a prefix. This particular verb root has for some unknown reason added a final /-t/ and so falls in a class of verbs that are otherwise of Tamasheq origin. The Songhay cognates of Timbuktu (KCH) are given unless marked differently (KS for Gao).

(17) *Songhay roots with causative prefix*

root	gloss	caus.	gloss	KCH
<i>yéd</i>	to return	<i>s-eedí</i>	to make return	yee
<i>yéeri</i>	to vomit	<i>s-éeri</i>	to cause to vomit	yeeri (KS)
<i>zībit</i>	to be dirty	<i>zī-zībit</i>	to make dirty	jiibi

The case of *s-eedí* is remarkable, as there appears an additional /i/ at the end of the stem. Possibly, /yeeri/ 'to retribute' is related to /yed/ 'return'. The causative may have been taken from an older disyllabic form.

3.1.3.2.3 *Double causative*

A small number of roots allow for double causatives. Some of them are semantically motivated, while others cannot be satisfactorily explained. The examples under (a) are Tamasheq cognates with an intransitive use in the root form (to graze; to be divorced). The first causative form adds a human will (to make (animal) graze; to make be divorced = to divorce) and the second causative involves one more human causer (to make somebody graze (animal); make somebody divorce)

Example (b) has an intransitive root in Tadaksahak (*keedí* 'be up on = be mounted'). *s-éwəŋ* is used in an active form 'to put somebody on something'. The double causative form adds another human actor (make somebody put something on something)

(c) gives examples with suppletion where no simple causative is found. These cases cannot be explained with semantic or syntactic reasoning.

(18) *Double causatives*

	root	causative	double-causative	gloss
a)	<i>yíðəŋ</i>	<i>ʃ-éðəŋ</i>	<i>ʃé-ʃʃ-əðəŋ</i>	make graze
	<i>léf</i>	<i>ʃí-ləf</i>	<i>ʃí-ʃʃí-ləf</i>	make divorce
b)	<i>keedí</i>	<i>ʃ-éwəŋ</i>	<i>ʃé-ʃʃ-əwəŋ</i>	make put on
c)	<i>wí</i>		<i>sə-súw-əŋɣa</i>	make kill
	<i>mún</i>		<i>sé-ss-əŋɣəl</i>	make pour

### 3.1.3.3 *Reciprocal and Middle*

As in most languages of the world, Tadaksahak has some inherently reciprocal verbs. But the larger part is marked with a prefix as shown below.

#### 3.1.3.3.1 *Lexical reciprocals*

A number of verbs have a reciprocal component that is not marked with a morpheme. Syntactically, when they are found with a plural subject they do not need a complement. When used with a subject in the singular, a complement is needed to be grammatically correct.

Examples:

- (19) a) *i-b-zóy*.  
 3p-IMPERF-fight.verbally  
 they fight (each other).
- b) *i-b-saawá*.  
 3p-IMPERF-look.alike  
 they look alike (like each other).

The examples in our corpus with marked reciprocals exceed by far the few unmarked roots.

#### 3.1.3.3.2 *Morphologically marked reciprocals and middles*

The morphemes found to express reciprocal or middle meanings are the following.

- (20) *Reciprocal morphemes*
- |                    |                           |
|--------------------|---------------------------|
| <i>m(ə)-</i>       | root contains no labial C |
| <i>n(ə)-</i>       | root contains labial C    |
| <i>nə-m(m)(ə)-</i> |                           |

The basic form of the prefix is *mə-*, as illustrated under (a). The use of the allomorph *nə-* is conditioned by the consonants in the root it is prefixed to. Verb roots containing an /m/ or any other labial (/b/ or /f/; /w/ does not count as labial for this feature) take the *nə-* prefix. See examples under (b).

(21)	<i>Use of allomorphs</i>		
	verb root	reciprocal	gloss
a)	<i>yídyər</i>	<i>m-édyər</i>	to be glued / to adhere to
	<i>yíxwəl</i>	<i>m-áxwəl</i>	to be preoccupied by s.th. / to be bothered by s.b.
	<i>ṭérṭər</i>	<i>mé-ṭərṭər</i>	to be along / to line up
b)	<i>yírzəm</i>	<i>n-éřzəm</i>	to be tied around / to cramp
	<i>yíbdəd</i>	<i>n-ébdəd</i>	to be held up / to stand together
	<i>gártəttəf</i>	<i>nə-gártəttəf</i>	to stumble / to stumble

Morphologically marked reciprocals cannot be distinguished from middles on the grounds of the morpheme. One meaning found for the morpheme is 'doing something together' or paraphrased differently 'doing something with each other' as opposed to 'doing something to each other'. However, it is striking that a very high percentage of verbs with the doubled *nə-m(m)(ə)-* prefix express reciprocity, implying a patient and an agent.

A reasonable amount of verbs occur with a reciprocal prefix without a basic underived root to belong to.

(22)	<i>Roots not found without reciprocal prefix</i>	
	stem	gloss
	<i>m-édəd</i>	to be weak
	<i>m-édəs</i>	to be compared
	<i>m-éday</i>	to be side by side
	<i>m-éṇi</i>	to meet
	<i>m-égrəz</i>	to regret
	<i>m-éyəlɣəl</i>	to be thoughtful about
	<i>m-éřəqət</i>	to be preoccupied with
	<i>m-éṭṭi</i>	to change (one self)
	<i>m-ələli</i>	to be inside out
	<i>m-éṇəṇ-ət</i>	to turn oneself around
	<i>m-éṭṭəkwi</i>	to move from
	<i>n-éfli</i>	to be at ease



As observed with the roots that take a causative prefix, the different types of roots behave similarly when taking the reciprocal prefix. /y/ is dropped (a), some roots (and stems) need to adjust the stress to the ante-penultimate syllable (b) and some roots resyllabify (c).

(23) *Roots and stems taking the reciprocal prefix*

	root	reciprocal	gloss root	gloss derived root
a)	<i>yídyər</i>	<i>m-édyər</i>	to be glued	to adhere to
	<i>yíltáy</i>	<i>m-éltáy</i>	to be glued	to adhere together
	<i>yígər</i>	<i>m-égər</i>	to push away	to butt
	<i>yískəl</i>	<i>m-éskəl</i>	to take away	to change against
	<i>yíbdəd</i>	<i>n-ébdəd</i>	to be held up	to stand together
	<i>yíybər</i>	<i>n-éybər</i>	to squeeze between	to squeeze self between
	<i>yíktəb</i>	<i>n-éktəb</i>	to write	to write each other
	<i>yírkəb</i>	<i>n-érkəb</i>	to pull	to pull from s.th.
	<i>yírdəf</i>	<i>n-érdəf</i>	to be unhooked	to hook with
	<i>yírzəm</i>	<i>n-érzəm</i>	to hang around s.th.	to cramp
	<i>yímbəz</i>	<i>n-émbəz</i>	to disperse	to be dispersed among
b)	<i>gártəttəf</i>	<i>nə-gártəttəf</i>	to stumble	to stumble
	<i>kárəbət</i>	<i>nə-kárəbət</i>	to join	to join
	<i>təltəl</i>	<i>mé-təltəl</i>	to roll up	to be tangled up
	<i>tərtər</i>	<i>mé-tərtər</i>	to be along	to line up
c)	<i>dənay</i>	<i>mé-dni</i>	to fill	to force feed
	<i>zəlay</i>	<i>mé-zli</i>	to be different	to confuse with
	<i>fəlás</i>	<i>nə-fləs</i>	to believe s.th.	to have confidence in s.b.

Mainstream Songhay has no morphological reciprocals. When not

expressed lexically they are analytic and formed with the lexeme 'friend' without definite and plural morphemes serving to mark 'each other'. It is not surprising therefore that in Tadaksahak Songhay cognates taking reciprocal morphology are borrowed from Tamasheq.

(24) *Songhay roots suppleted by Tamasheq cognates*

root	reciprocal	gloss root/ derived	suppleted root	Tamasheq cognate
<i>káy</i>	<i>n-ábdəd</i>	to stop/stand together		əbdəd
<i>na</i>	<i>n-əkfa</i>	to give/give each other		əkfa
<i>ṭáaṭab</i>	<i>n-əzmi</i>	to sew/sew together		əzməy
<i>gorá</i>	<i>nə-γiima</i>	to sit/sit together		γamu

The double prefix is very frequent with suppletive roots and mostly indicates reciprocals.

(25) *Suppletive roots with double prefix*

root	reciprocal	gloss root	gloss derived root
<i>wi</i>	<i>nə-mm-anya</i>	to kill	to beat/kill each other
<i>dá</i>	<i>nə-mm-əga</i>	to do	to do to each other
<i>mór</i>	<i>nə-mm-əgəg</i>	to be distant	to be distant from each other
<i>mán</i>	<i>nə-mm-əhəz</i>	to be close	to be close to each other
<i>háaṣi</i>	<i>nə-mm-əswud</i>	to look	to look at each other
<i>kár</i>	<i>nə-mm-əwut</i>	to hit	to hit each other
<i>záw</i>	<i>nə-mm-əwi</i>	to take	to be infectious (lit: to be taken to each other)

There are a number of underived Tamasheq cognates that also take a derived form with the double prefix. In many cases a meaning of 'doing together/with each other' is conveyed.

(26)

*Tamasheq cognates with double prefix*

root	reciprocal	gloss root	gloss derived root
<i>yardá</i>	<i>ná-m-arda</i>	to agree	to agree with each other
<i>yídkəl</i>	<i>ná-m-ədkəl</i>	to pick up	to pick up together
<i>yíyli</i>	<i>ná-m-əyli</i>	to go around	to go around from two sides
<i>yogá</i>	<i>ná-mm-əga</i>	to spot	to spot each other
<i>yíntəz</i>	<i>ná-m-əntəz</i>	to pull quickly	to pull from each other
<i>yírəm</i>	<i>ná-m-əṛəm</i>	to try	to try with each other
<i>yírəṣ</i>	<i>ná-m-əṛəṣ</i>	to ford	to ford together
<i>yíway</i>	<i>ná-mm-əway</i>	to block way	to block passage together
<i>yizgár</i>	<i>ná-mm-əzgər</i>	to bear sb. a grudge	to bear a grudge against each other
<i>kújit</i>	<i>nə-mú-kujit</i>	to inherit	to inherit from each other
<i>jégn-ət</i>	<i>nə-má-jégn-ət</i>	to reproach	to reproach each other
<i>kəsán</i>	<i>ná-mmə-ksan</i>	to refuse	to refuse to (hold) together
<i>zəray</i>	<i>ná-mmə-zri</i>	to pass after sb.	to miss each other

A few roots are found with the single as well as with the double prefix; in such cases different meanings are conveyed, e.g. *yírkəb* 'to be pulled' (underived form); *n-ərkəb* 'to pull from' (singly derived form); *nə-mm-ərkəb* 'to pull between each other' (double derivation).

### 3.1.3.4 Passive *t(ə)-*, *tuw-* and *tuwa-*

There are three prefixes which may form the passive of a verb.

#### (27) *Passive prefixes*

*t(ə)-*

*tuw-*

*tuwa-*

Using a passive prefix always implies a human agent that the speaker does not want to name. At the same time it is ungrammatical to add the agent in the same clause as is possible in English, e.g. 'he was hit by his brother.'

Some semantically less 'active' verbs like 'call' allow for a complement with *ənda* 'with' when used in the passive voice, e.g. 'the place was called *ənda* T.'

*tuwa-* only occurs preceding causativized stems and the few roots of Songhay origin that allow the passive morpheme. This suggests that this is the default prefix for already derived stems and a few Songhay cognates.

The allomorphs *tuw-* and *t(ə)-* are less predictable. The shorter form tends to replace the initial /y/ of that verb class. But there are *tuw-* passives found preceding y-initial verbs.

*tuw-* is the least frequent allomorph found mostly preceding suppletive roots that replace Songhay verbs to form the passive voice.

The following list shows different ways to form the passive voice. Group (a) shows the replacement of /y-/ with *t-*. The examples under (b) resyllabify to take the prefix. (c) gives the only example in our corpus of a y-verb that takes the *tuw-* prefix. The last example (d) has no 'basic' form, only a causative stem is known.

(28) *Passive forms of Tamasheq cognates*

	root	passive	gloss
a)	<i>yíbət</i>	<i>t-ébət</i>	be snatched
	<i>yíləm</i>	<i>t-éləm</i>	be opened
	<i>yíqbul</i>	<i>t-éqbul</i>	be accepted
	<i>yíttəl</i>	<i>t-éttəl</i>	be wound around
	<i>yíkkəl</i>	<i>t-ékkəl</i>	be elevated
	<i>yíwáy</i>	<i>t-úwáy</i>	be blocked
b)	<i>dəṇay</i>	<i>t-əṇi</i>	be filled
	<i>kəsán</i>	<i>t-ksan</i>	be refused
c)	<i>yílka</i>	<i>túw-əlka</i>	be disdained
d)	<i>f-úduf</i>	<i>t-ədəf</i>	be withheld

Songhay roots undergo suppletion when used in the passive form. Both kinds of prefixes are attested. The list below gives examples for the *t(ə)*-prefix under (a) and under (b) are the forms with *túw-*.

(29) *Passive forms of Songhay roots with the Tamasheq cognate.*

	root	passive	gloss	Tam cognate
a)	<i>záw</i>	<i>t-əwi</i>	bring	awəy
	<i>keedí</i>	<i>t-əwəṇ</i>	climb/ride	əwəṇ
	<i>dumbú</i>	<i>t-əgzəm</i>	cut/slaughter	əgzəm
	<i>dá</i>	<i>t-əga</i>	do	əgu
	<i>nín</i>	<i>t-ífu</i>	drink	ǎj(w)u
	<i>ṇá</i>	<i>t-əkfa</i>	eat	ikfa
	<i>zóy</i>	<i>t-əkṇəs</i>	fight (also verbally)	əkṇəs
	<i>habá</i>	<i>t-əfrəd</i>	gather (food)	əfrəd
	<i>ná</i>	<i>t-əkfa</i>	give	ǎkfu
	<i>kár</i>	<i>t-əwət</i>	hit	əwət
	<i>záy</i>	<i>t-úkuṛ</i>	steal	akər
	<i>gón</i>	<i>t-əlməz</i>	swallow	əlməz
	<i>diní</i>	<i>t-úbuz</i>	take	əbəz

	root	passive	gloss	Tam cognate
	<i>káw</i>	<i>t-úkuf</i>	take out	əkkəʃ
	<i>hár</i>	<i>t-əməl</i>	tell	əməl
	<i>háaʃi</i>	<i>t-úʃwud</i>	look at	əswəd
	<i>hurrú</i>	<i>t-əgmí</i>	look for	əgməy
b)	<i>mó</i>	<i>túw-əsla</i>	hear	ǎslu
	<i>ʃót</i>	<i>túw-əggəd</i>	jump over	əggəd
	<i>wí</i>	<i>túw-anya</i>	kill/hit	anyu
	<i>báy</i>	<i>túw-asun</i>	know	əssən
	<i>dís</i>	<i>túw-íya</i>	leave alone	ǎyyu
	<i>céw</i>	<i>túw-ayra</i>	call s.b.	ǎyru
	<i>báaya</i>	<i>túw-əra</i>	love/want	iru
	<i>qaarán</i>	<i>túw-ayra</i>	read/study	ǎyru
	<i>cí</i>	<i>túw-əñña</i>	say	ǎñnu
	<i>guná</i>	<i>túw-əni</i>	see	ənəy

The full form *tuwa-* appears mostly on stems that have a causative morpheme. Adding two syllables to a di-syllabic root or stem always entails stress shift from the first syllable of the stem to the antepenultimate syllable which is the default stress for verbs (third from right).

(30) *Passive forms of Tamasheq causative roots*

stem	passive	gloss
<i>s-ərkəb</i>	<i>tuwá-s-ərkəb</i>	be pulled
<i>ʃ-əʃʃəg</i>	<i>tuwá-ʃ-əʃʃəg</i>	be milked
<i>z-úguz</i>	<i>tuwá-z-uguz</i>	be made to enter

One example occurs that has a non-sibilant initial C but behaves like a causative. This root may be interpreted as having an atypical causative prefix, i.e., the reduplication of the root suggests such reading. ‘to load’ *jji* (from Tamasheq /gǎggu/ ‘to load’) has the passive form *tuwá-jji* ‘be loaded’.

There are a few Songhay verbs that take this morpheme for the passive voice. Find the attested examples in the list below.

(31) *Songhay roots taking the passive morpheme*

root	passive	gloss
<i>fík</i>	<i>túwa-fík</i>	be planted
<i>mún</i>	<i>túwa-mun</i>	be poured out
<i>tím</i>	<i>túwa-tim</i>	be pricked (get an injection)

3.1.3.5 *Reduplication*

In Mainstream Songhay, according to Heath (1999a:141; 1999b:173), verb-stem reduplication is not a very common feature, but sometimes indicates iteration or prolongation.

It is not extremely productive in Tadaksahak either, but there are a number of examples in our corpus that merit discussion.

The general meaning of duplicated verb stems suggests ‘repeated action’ ‘doing many of’ for action verbs as illustrated in (a) and conveys ‘intensification’ for qualifying verbs (b).

(32) *Reduplication of Songhay cognates*

	root	gloss	duplicated	gloss
a)	<i>báq</i>	to break	<i>báqbaq</i>	to split (into many small pieces)
	<i>káy</i>	to stand	<i>káykay</i>	to stroll (stop many times)
	<i>háw</i>	to attach	<i>háwhaw</i>	to attach many
	<i>kós</i>	to cut	<i>koskós</i>	to cut in pieces
	<i>mún</i>	to throw out	<i>munmún</i>	to throw out (repeatedly)
b)	<i>cidáy</i>	to be red	<i>cidícidi</i>	to be very red
	<i>kóoray</i>	to be white	<i>korókoray</i>	to be very white
	<i>ceená</i>	to be small	<i>cinícina</i>	to be very small

The disyllabic roots shown in (b) above reduplicate the initial CVC. A copy vowel is inserted to link to the complete second segment. All

long vowels of the root are shortened. In addition, the last example has a higher vowel. This could be caused by shortening and the preceding palatal C. In these examples the stress pattern fits with the default for verbs.

The verb roots of Tamasheq origin need to adjust for reduplication. y-verbs lose /yV-/ and re-syllabify. The two most frequent patterns modify as follows:

(33) *Reduplication patterns for Tamasheq cognates*

$yiC_1VC_2 \rightarrow C_1VC_2-C_1VC_2$

$yiC_1C_2\text{ə}C_3 \rightarrow C_1\text{ə}C_2\text{ə}C_3-C_1\text{ə}C_2\text{ə}C_3$

The illustrations are under (a) in the list below.

Verb roots with final /-ət/ lose this syllable and duplicate the remaining part. Examples are under (b) below.

(34) *Reduplication of Tamasheq cognates*

root	gloss	duplicated	gloss
a) <i>yíttəl</i>	to roll around	<i>táttəl</i>	to roll up
<i>yífřəʃ</i>	to cut (kind of)	<i>fəřəʃfəřəʃ</i>	to cut in many small pieces
<i>yísləf</i>	to carve	<i>sələʃsələf</i>	to carve many
<i>yíyli(y)</i>	to go around	<i>yalíyyəli</i>	to go around repeatedly
b) <i>búk-ut</i>	to thresh (millet)	<i>búkbuk</i>	to clean by hitting
<i>təbb-ət</i>	to hammer	<i>təbtəb</i>	to castrate (kind of)
<i>kərəmm-ət</i>	to cut s.th. dry	<i>kərəmkərəm</i>	to crumble

A number of verb stems only occur as duplications. Both forms with a Songhay background (e.g. *cáycaý* 'to weave', cf. KCH *key* 'to weave') and forms with a Tamasheq background belong to this class.

Among the CVC-CVC patterned stems, the vowels can be different from schwa. This may indicate that some of these forms are more likely of Songhay stock. See examples under (a) below.



The doubled di-syllabic stems invariably have the vowel schwa. With four syllables these stems take the default stress for verbs on the ante-penultimate syllable. Illustrations are in (b).

(35) *Verbs only appearing in a duplicated form*

	stem	gloss
a)	<i>cáycaɣ</i>	to weave (up and down, up and down)
	<i>dázdáz</i>	to castrate (kind of)
	<i>kúfkuf</i>	to castrate (kind of)
	<i>dígdig</i>	to break/split (many small pieces)
	<i>fárfəɾ</i>	to rub fast (foot on camel's neck)
	<i>kúnkun</i>	to roll up (mat)
	<i>régræg</i>	to tie (tent sticks) together
	<i>láflef</i>	to climb (insects)
	<i>málmə!</i>	to wind (through material)
b)	<i>gəɾəzɡəɾəz</i>	to chew with noise
	<i>kaʔámkaʔam</i>	to cut (meat) in small pieces
	<i>kəɾəfkəɾəf</i>	to tinker
	<i>rəɡətrəɡət</i>	to rock
	<i>rəkíyrəkí</i>	to wobble
	<i>təməytəməɣ</i>	to wink at somebody.

The examples given so far only show un-derived roots. There exist also derived forms with reduplication. Two different strategies can be observed.

- a) derivation applies to the reduplicated stem
- b) derived stems are duplicated

Pattern (a) is found in Tamasheq and must have its origin with imported lexical items from that language.

Pattern (b) seems to be an innovation. It is striking that the stress pattern on these reduplications is different from the default. The stress of the duplicated element is echoed in a weaker form on the second element however long the string of syllables may be. The shortest example is CVCV-CVCV and the longest has four syllables to be duplicated.

(36) *Reduplicated roots with causative derivation*

stem	caus + duplicated stem	gloss of the causative
<i>tíyti</i>	<i>sə-tíyti</i>	drive s.th. into
<i>ɣəlíyyəli</i>	<i>sə-ɣəlíyyəli</i>	make pivot
	<i>sə-foɣfoɣ</i>	click with lips to call sheep
<i>wələtwəl-ət</i>	<i>sə-wələtwəl-ət</i>	make bend in the wind

The last example on the above list violates the rule that requires duplicated roots to drop the final *-ət* syllable.

(37) *Duplicated causative stems*

stem	duplicated stem	gloss duplication
<i>f-ídu</i>	<i>f-ídu-f-ídu</i>	assemble many things
<i>s-əyli</i>	<i>s-əyli-s-əyli</i>	make go around
<i>ʃ-əttəb</i>	<i>ʃ-əttəb-ʃ-əttəb</i>	pour repeatedly small quantities
<i>sə-tərəm-ət</i>	<i>sə-tərəm-ət-sə-tərəm-ət</i>	distribute something dry and small

The behavior of stress in duplicated roots and stems is shown in the following scheme.

(38) *Duplication + Stress*

<i>[root] + [root] --&gt;</i>	<i>CVCV́-CVCV</i>
<i>Caus-[root + root]</i>	<i>CV-CV́CVCV</i>
<i>[stem] + [stem] --&gt;</i>	<i>CV́CV-ÇVCV</i>

3.1.3.6 *Directional -kat and -an*

The directional markers are not obligatory but if present, they are suffix to the verb stem.

Mainstream Songhay only has a centripetal suffix ('towards the speaker'), but Tamasheq has both, a centripetal and centrifugal

(‘away from the speaker’) enclitic. Tadaksahak may have copied this two-way opposition from Tamasheq.

KCH and KS have a suffix /-kate/ with the meaning ‘to here’ which is probably related to the verb /kata ~ kate/ ‘bring’ (Heath 1999a:140; 1999b:172).

The centrifugal enclitic in Tamasheq /*(n)in/* (Prasse et al. 579;620) ‘thither’ looks similar to the Tadaksahak form *-(n)an* but has irregular vowel quality. In other Songhay languages the verb ‘release, leave alone, let go’ is attested as /*nan/* (Timbuktu) and /*nanj/* (Gao). This verb would also constitute a possible origin of the Tadaksahak directional.

*-kat* indicates the centripetal direction. It is glossed VEN ‘ventive’ indicating ‘moving towards the deictic center (or speaker)’. *-an* stands for the opposite direction (centrifugal) and is glossed ALL ‘allative’ meaning ‘moving away from the speaker’.

In Tadaksahak *-kat* is much more frequent in texts than *-an*. Movement verbs take the suffixes the most easily, e.g., ‘to return’ *yéd* is most frequently encountered as *yée-kat* ‘return to here’ (see ‘irregular assimilation with /k/’ for the pronunciation 2.4.1.5) but also as *yéedan* ‘return to there’.

Other verbs regularly found with *-kat* are: ‘leave’ ‘pass’, ‘leave from’, ‘run’ and ‘go out’. The movement verb *tén* ‘to arrive’ (possibly cognate with KCH /*tenje/* ‘go towards, head for’) does not occur with the suffix.

The suffixes are in no way restricted to movement verbs. They are found on verbs like ‘undo’, ‘do’, ‘attach’, ‘cut’, ‘kill’, ‘see’ or ‘sneeze’.

The occurrence of nouns containing the suffix confirms its derivational status, *kos-kat-én* (cut-VEN-PL) ‘the cut-off things’.

Tadaksahak has no underived verb root with the meaning ‘bring’. The verb *záw* ‘take’ is usually heard with *-kat* to express ‘bring’. Likewise, *yímmər* ‘pass by’ with *-kat* ‘pass (somewhere) to here’ is another way to express ‘bring’. These examples could be rephrased as ‘take and bring’/‘pass and bring’ respectively. However, the occurrence of the suffix with non-movement verbs suggests a semantic centripetal direction only not involving a ‘bring’ component.

There is no verb root in the language to express ‘to come’. The form /*kaa/* ‘to come’ from Songhay is not found, only the form *koy* ‘to leave’

is used. This root expresses a movement away from some place and it is then specified whether this movement is towards the speaker or away from her/him.

- (39) a) *a-kkó(y)*.  
3s=leave  
s/he left.
- b) *ni-kkóy-kat*      *ayáy*.  
2s=leave-VEN      1s.O  
you came to me. (you left to here [where I am])
- c) *a-kkóy-an*    *áy=n*      *híj-en*  
3s=leave-ALL 3s=GEN      tent-PL  
s/he went to his/her camp. (s/he left for there to...)

The imperative of this verb when used to cause a movement towards the speaker is a suppletive root from Tamasheq (4.3.5).

Some verbs are hardly ever used without a directional suffix. *dáy* 'to deal' is an example; while the verb can occur without a suffix (see a), it is by far most frequently encountered with the suffix (see b and c):

- (40) a) *danj-én*    *i-b-dáy*      *fammúj*.  
charcoal-PL 3p=IMPERF-deal      five  
(bags of) charcoal are dealt for 25 Fcfa.
- b) *aya-ddáy-kat*    *t-a-lágas-t*.  
1s=deal-VEN      F-SG-melon-F.SG  
I bought a melon.
- c) *a-b-dáy-an*      *táyni*.  
3s=IMPERF-deal-ALL date  
he sells dates.

For some verbs the directional suffixes are so much part of the verb that the root cannot be used without the morpheme. The noun 'forgetfulness' is *dingá*, the verb 'to forget' does not occur without the suffix *-an* ALL.

- (41) *aya-dding(á)-an*    *hé*    *fó*.  
1s=forget-ALL      thing IND  
I forgot something.

Likewise 'to continue to do' *yillán-an* always has the suffix.

- (42) *yíllan-an* *ənd(a)* *alñál* *ayó* *(á)yda!*  
 continue-ALL COMV behavior DET DEM.PRX  
 continue this behavior!

The verb *fúr* ‘to throw’ can take the suffix *-an* ‘to throw away’. When this form is used with a non-human agent people give the meaning ‘to be lost’.

- (43) *aya-n* *t-ée-yar-t* *a-ffur-án.*  
 1s-GEN F-SG-bowl-F.SG 3s-throw-ALL  
 my bowl is lost.

With the verb *yíkti* ‘to remember/be reminded of’ the centripetal suffix *-kat* is almost always present.

- (44) a) *aya-yyikti-kat* *sa...*  
 1s-remember-VEN COMP  
 I remember that...
- b) *a-yyikti-kat* *ayáy* *ay-n* *áyyaw.*  
 3s-remember-VEN 1s.IO 1s-GEN nephew  
 he reminds me of my nephew.

Non-directional verbs such as ‘see’, ‘sneeze’ or ‘find’ can also take the directional suffixes. From the analysis of narratives we find that this device is regularly used to indicate the center of attention or whom the narrator considers to be the main actor in the deed. The feature is also used to show perspective within the story.

### 3.1.4 Verb Inflection

In his Songhay grammars Heath talks about the ‘verb phrase structure’ when he addresses inflection and Mood-Aspect-Negation (MAN) morphemes. What is a verb phrase in Mainstream Songhay shows the behavior of a verbal word in Tadaksahak, i.e. inflection and the verb stem form a unit that cannot be cut into separate words. Such behavior is well known and normal for Berber languages. Person, number, MAN and the stem form a single unit with prefixes, infixes, suffixes and vowel changes, as well as certain stress patterns.

In Tadaksahak the inflected verb must contain person/number, MAN, and the verb stem regardless of the presence of a noun phrase. This is different from Mainstream Songhay where there is no obligatory agreement of person/number when an overt noun phrase is present.

The Tadaksahak structure with obligatory person reference regardless of the presence or absence of an NP is reminiscent of Tamasheq.

Two of the six person-clitics have an allomorph depending on the shape of the following MAN-morpheme (see below). One clitic re-syllabifies when followed by two of the MAN-morphemes (Phonology 2.4.2.2). In addition, the inflected verb has only one stressed syllable, typically on the verb stem.

In the following sections the subject clitics and the MAN morphemes are presented. Together with the verb stem they form the verbal word. The scheme below summarizes the possible elements found in the verbal word. The elements in brackets indicate that they are optional.

(45) *Elements of the verbal word*

subject clitic	MAN	<b>stem</b>	(3 <sup>rd</sup> person direct object)
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3.1.4.1 *Subject clitic*

All inflectional morphemes in Tadaksahak are prefixed except for the direct objects pronominal clitics. The categories they represent are person (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>) and number (singular, plural). Unlike Tamasheq but according to the general Songhay pattern, no distinction between masculine and feminine is made in pronominal elements. Subject clitics will be glossed as 1s, 2s, 3s, 1p, 2p and 3p

(46) *Subject clitics:*

singular		plural	
<i>ay(a)-</i>	1s	<i>ar(ə)-</i>	1p
<i>ni-/ən-</i>	2s	<i>andə-</i>	2p
<i>a-</i>	3s	<i>i-</i>	3p

The two first-person clitics have an allomorph determined by the following syllable. With the MAN markers of the shape CV- the short subject clitic, *ay-* is used (and pronounced [ax] before *sə-* and *tə-* see Phonology 2.4.1.3), while the MAN markers of the shape C- are preceded by the longer form, *aya-*.

(47)	<i>ay-tə-qaarán</i> 1s=FUT-study I will study.	<i>aya-m-qaarán</i> 1s=SUBJ-study I may/should study
	<i>ay-sə-qaarán</i> 1s=NEG.IMPERF-study I do not study / I am not ...	<i>aya-f-qaarán</i> 1s=IMPERF-study I study / I am studying
	<i>ay-nə-qaarán</i> 1s=NEG.PERF-study I did not study.	<i>aya-qqaarán</i> 1s=study I studied.

The second person singular undergoes resyllabification when preceding the CV- shaped MAN morphemes *sə-* and *tə-* (Phonology 2.4.2.2).

(48)	<i>ən-tə-qaarán</i> 2s=NEG.IMPERF-study you will study.	<i>ni-m-qaarán</i> 2s=SUBJ-study you may / should study.
	<i>ən-sə-qaarán</i> 2s=FUT-study you do / will not study.	<i>ni-f-qaarán</i> 2s=IMPERF-study you study / you are studying.
	<i>ni-nə-qaarán</i> 2s=NEG.PERF-study you did not study .	<i>ni-qqaarán</i> 2s=study you studied.

The other clitics do not change their shape whatever the shape of the following MAN marker.

### 3.1.4.2 Mood-Aspect-Negation (MAN) morphemes

The paradigm of MAN markers shows five morphemes, labeled as follows:

- imperfective (IMPERF)
- subjunctive (SUBJ)
- future (FUT)
- negative imperfective (NEG.IMPERF)
- negative perfective (NEG.PERF)

These morphemes are mutually exclusive, and can never be combined.

The perfective is unmarked; however, due to phonological rules (see 2.4.1.7.2), there is gemination of the initial consonant of the verb in

this aspect.

All other markers are marked by a single consonant or have the pattern Cə-.

(49) *MAN paradigm:*

	affirmative	negative
perfective	-	<i>nə-</i>
imperfective	<i>b-/bə-/f-</i>	<i>sə-</i>
future	<i>tə-</i>	
subjunctive	<i>m-</i>	

The imperfective marker appears in three forms. They are conditioned by the following consonant of the stem.

*f-* before voiceless plosives

*bə-* with *b*-initial verbs

*b-* elsewhere

This is illustrated below:

(50) *Devoicing of b- morpheme*

C	3p-IMPERF-verb	gloss
/t/	<i>a=f-tudú</i>	s/he is responding
/d/	<i>a=b-dudú</i>	s/he is pouring
/c/	<i>a=f-ci</i>	s/he is saying
/j/	<i>a=b-jinjirí</i>	s/he is praying
/k/	<i>a=f-kuná</i>	s/he is finding
/g/	<i>a=b-guná</i>	s/he is seeing
/q/	<i>a=f-qaarán</i>	s/he is studying

(51) *Allomorph bə- with b- initial verbs*

3p-IMPERF-verb	gloss
<i>a=bə-bəbbá</i>	she is carrying (child) on the back
<i>a=bə-béleqləg</i>	it (fire) is crackling
<i>a=bə-béllen</i>	he is wrestling
<i>a=bə-búkbuk</i>	s/he is cleaning by hitting



*a-bə-bíibi* s/he/it is black

All y-initial verb roots, also those with Songhay etymology, lose their initial consonant before MAN markers consisting of a single consonant, i.e. the imperfective and the subjunctive.

(52) b- 'imperfective' MAN deleting initial y-

3p-IMPERF-verb	gloss
<i>a-bb-éeri</i>	s/he is throwing up
<i>a-bb-éd</i>	s/he returns
<i>a-bb-ála</i>	s/he rolls (rope)
<i>a-bb-égməm</i>	s/he chews (habitually) (tobacco)
<i>a-bb-aráy</i>	s/he/it is yellow

(53) m- 'subjunctive' MAN deleting initial y-

3p-SUBJ-verb	gloss
<i>a-mm-éeri</i>	would that s/he throws up
<i>a-mm-éd</i>	would that s/he returns
<i>a-mm-ála</i>	would that s/he rolls (rope)
<i>a-mm-égməm</i>	would that s/he chews (tobacco)

More discussion about the MAN system can be found under 4.2 in the syntax part.

### 3.1.4.3 Direct object clitic

Direct object pronominal markers fall into two groups. First and second person markers have no influence on the form of the preceding verb form. The third person direct object clitics *=a* 'him/her/it' and *=i* 'them', which consist of a single vowel, behave differently. They cause a final closed syllable of the verb stem to open and reveal a possible long vowel in this syllable. The other V-initial direct object pronouns do not open the preceding closed syllable. This indicates that *ayáy* 1s.O, *áari* 1p.O and *ándi* 2p.O are not closely knit to the verbal word. *nín* 2s.O starts with a consonant and cannot influence a preceding closed syllable.

(54) *Direct objects*

- |    |                          |                             |
|----|--------------------------|-----------------------------|
| a) | 3s=pound                 |                             |
|    | <i>a-ddút</i>            | s/he pounded.               |
|    | <i>a-ddút áari hayní</i> | s/he pounded millet for us. |
|    | <i>a-dduut-á</i>         | s/he pounded it (millet).   |
| b) | 3s=finish                |                             |
|    | <i>a-bbén</i>            | it is finished.             |
|    | <i>a-bbén áari</i>       | s/he finished us.           |
|    | <i>a-bbeen-á</i>         | s/he finished him/her/it.   |

The last possible element of the verbal word is the third person direct object clitic.

**3.1.5 Adverbs**

There are only a few adverbs that modify verbs. Manner is often part of the meaning of the verb. Time and space expressions are abundant but most of them are noun phrases used adverbially. We present here only the manner adverbs and three spatio-temporal adverbs.

**3.1.5.1 Manner**

The only manner adverbs which are regularly used are the following:

(55) *Manner adverbs*

<i>ʒík</i>	quickly
<i>sallánda</i>	carefully
<i>húllən</i>	much

Many verbs contain a 'manner' component and need therefore not be modified, e.g. *tələss-ət* 'to walk lightly', *yídɾəŋ* 'to return quickly'.

Expressions like 'doing a lot of something' or 'doing something of good quality' are expressed as a verbal noun construction (4.3.3.1).

### 3.1.5.2 Spatio-temporal

The three most important deictic adverbs (and adverbial phrases) are listed below.

(56)	<i>Spatio-temporal adverbs</i>	
	<i>néeda</i>	here
	<i>sénda ~ asénda</i>	there
	<i>marád-óoda</i>	now

*néeda* 'here' has a cognate in KCH /nee daa/ 'right here'.

The distal counterpart *sénda ~ asénda* 'there' seems to go back partly to Tamasheq. Prasse et al. (2003:727) list /sen/ 'towards there, in that direction' Added on this element is the emphatic particle *da* 'exactly'. For the demonstrative use of *sénda ~ asénda* 'that' see 4.1.3.1 and 4.1.4.1.

The temporal expression *marád-óoda* 'now' is composed of a 'time' element *marád* and the demonstrative *óoda* 'this'. Another related term, *marád-da* 'right now', has the same initial element followed by the emphatic particle *da* 'exactly'. \**marád* does not occur in isolation. However, it has a cognate in /mareyda/ 'now' in KCH. (Heath 1998a:199).

## 3.2 Nouns, pronouns, adjectives, numerals

### 3.2.1 Basic structure of nouns

In the introduction to the morphology the effect of etymological origin in the morphological behavior of verb roots was shown. Nouns behave in a similar way: Songhay nouns are formed differently and their morphology is quite different from that of nouns coming from Tamasheq.

The basic noun structure can be presented in two schemes. One group of nouns has no prefix and covers most of the Songhay cognates, Arabic loans and some Tamasheq nouns. The other group has a prefix and mostly consists of nouns from Tamasheq.

Type 1: nouns without prefix  
 (prefix) - STEM - (suffix)  
 (number) (number)  
 only pl only pl

Type 2: nouns with a prefix  
 prefix - STEM - (suffix)  
 number (number) (number)  
 (gender) (gender)

Type 1 nouns mark plural by means of a suffix or a prefix, but not generally both. The absence of a plural morpheme indicates the inherent singular number of the noun.

Type 2 nouns always have a prefix that marks number. Both singular and plural are explicitly marked. Plural may be marked by a suffix and/or by a certain vowel pattern. If gender is expressed, it is always marked in the prefix, and sometimes also in the suffix. When a plural suffix is present the gender suffix is absent.

Nouns may consist of one syllable; however the majority of the nouns have two or three syllables. Some mono-morphemic nouns of four syllables are found.

### **3.2.2 Gender**

Gender is a category which only plays on the lexical and derivational level. There is no gender agreement in the language. The only reason to consider gender a category in Tadaksahak is the existence of a lot of nouns which occur in two genders with a relatively clear semantic correlation between the choice of the gender and the meaning of the item. For those nouns which do not allow for a gender opposition, there is no grammatical reason to assign them to one or the other gender. However, in most elements derived from Tamasheq, the formal make-up of the noun makes use of the same elements which in gendered nouns (i.e. those allowing for the opposition) are used to mark the opposition.

Tadaksahak has two genders, which, following the grammatical tradition in Berber studies, will be referred to as masculine and feminine. Masculine gender has no formal expression, feminine gender is marked by means of the prefix *t-* and (in most singular nouns), the suffix *-t*, e.g. *ée-jaf* / *t-ée-jaf-t* 'dune / small dune'. In those nouns which allow for a gender opposition, the feminine marks some other meanings besides the natural gender of animals and humans. It can mark the diminutive, and it serves for some categories as a nominalizer.

The marker comes from Tamasheq where it is very productive. In Tadaksahak it is not only found with Tamasheq cognates but also observed with nouns of Songhay origin.

When a feminine noun is derived from a noun without a prefix, the prefix consists of the gender morpheme *t-* followed by the default number prefix *a-*. The two elements form a full syllable prefixed to the stem which entails a shift of the stress to the left on the resulting noun, e.g. *mojaddí* 'paternal uncle' *t-a-mojáddi-t* 'paternal aunt'.

### 3.2.2.1 Assimilation rules for the gender suffix *-t*

The suffix *-t* assimilates to the final consonants of the stem.

We have no evidence of /ʕ/, /ħ/ and /h/ being followed by *-t*. For the other consonants the following rules apply:

Liquids, semivowels and nasals remain unchanged.

Voiced plosives (particularly /b/) and fricatives are devoiced.

If C is any occlusive except /b/, *-t* is fully assimilated; the only trace of the suffix is the devoicing of the stem consonant.

If C is /ʕ/, it is amalgamated with *-t* to be realized as [q].

(57) Examples: unchanged adding *-t*:

final C	without morpheme	with morpheme	gloss
/n/	<i>a-rgán</i>	<i>t-a-rgán-t</i>	adult camel (male/female)
/m/	<i>á-ylam</i>	<i>t-á-ylam-t</i>	riding camel (male/female)
/l/	<i>a-húlel</i>	<i>t-a-húlel-t</i>	foal of donkey

			(male/female)	
	/r/	<i>ée-yar</i>	<i>t-ée-yar-t</i>	cooking pot / receptacle (kind of)
	/y/	<i>áa-way</i>	<i>t-áa-way-t</i>	kid/lamb (male/female)
	/w/	<i>a-báznaw</i>	<i>t-a-báznaw-t</i>	old donkey (male/female)
(58)	<i>Devoicing with -t</i>			
	final C	without morpheme	with morpheme	gloss
	/z/	<i>a-bóobaz</i>	<i>t-a-bóobas-t</i>	cross cousin (male/female)
	/ʒ/	<i>ú-gmuʒ</i>	<i>t-ú-gmuʃ-t</i>	thumb (normal size/small)
	/b/	<i>yírkəb</i>	<i>t-á-rkəp-t</i>	to pull / tyranny
(59)	<i>Devoicing and full assimilation of -t.</i>			
	final C	without morpheme	with morpheme	gloss
	/d/	<i>t-ə-sá-smad</i>	<i>t-a-sá-smət-t</i>	points / point
	/ɖ/	<i>a-máawaɖ</i>	<i>t-a-máawaɖ-t</i>	young boy / young female animal
	/g/	<i>t-ə-zbug-an</i>	<i>t-á-zbuk-k</i>	ropes / rope of waterbag
	/q/	<i>almunáafiq</i>	<i>t-almunáafiq-q</i>	wicked person (male/female)
(60)	<i>Development of /y/ + -t</i>			
	final C	without morpheme	with morpheme	gloss
	/ɣ/	<i>a-fáqaɣ</i>	<i>t-a-fáqaq-q</i>	brother / sister
		<i>t-é-ly-in</i>	<i>t-ée-laq-q</i>	knives / knife

Gender morpheme encodes various meanings in Tadaksahak. Several meanings are the same as in Tamasheq.

### 3.2.2.2 *Natural gender*

The gender opposition is used very productively to oppose a female being to its male counterpart. The feature is encountered with humans as well as with animals. The nomadic culture depending on female animals for reproduction and milk as daily nourishment has a large array of nouns for these items. Many kinship terms are found with this feature.

The first group (a) shows nouns of human beings. Under (b) wild and domesticated animals are listed. (c) gives an exception: the female form 'kid' is irregular. Note that 'young cow' *t-áa-yít-t* is the feminine form expected from *áa-yid* 'male kid'. 'female kid' *t-a-yádit-t* is also used as a pet name for girls.

#### (61) *Examples for female*

	male	female	gloss
a)	<i>a-bóobaz</i>	<i>t-a-bóobas-t</i>	cross cousin
	<i>a-lúgus</i>	<i>t-a-lúgus-t</i>	sister/brother in law
	<i>a-má-zgol</i>	<i>t-a-má-zgol-t</i>	handsome man/beauty
b)	<i>áa-har</i>	<i>t-áa-har-t</i>	lion/lioness
	<i>a-báznaw</i>	<i>t-a-báznaw-t</i>	old donkey
	<i>áa-yu</i>	<i>t-áa-yi-t</i>	young bull/cow
	<i>a-lágoḍ</i>	<i>t-alágoḍ-t</i>	baby camel, male/female
c)	<i>áa-yid</i>	<i>t-a-yádit-t</i>	(goat) kid

Two Songhay cognates in our corpus take the morpheme to mark the opposition male/female. They are shown below.

#### (62) *Songhay cognates with feminine gender morpheme*

	male	female	gloss
	<i>zeemí</i>	<i>t-a-zéemi-t</i>	blacksmith
	<i>bəkáw</i>	<i>t-a-bəkaw-t</i>	jinn

In contrast *hánjī* 'dog', also a Songhay cognate, cannot be combined with the feminine morpheme. The term is suppleted by a Tamasheq

cognate with the feminine marker: *t-a-báykor-t* 'bitch'; its logical masculine counterpart (well-attested in Tamasheq) *\*a-báykor* is not used in Tadaksahak.

A number of animals are only used in forms with the feminine marker (illustrated under (a) below). Other words for female animals, however, have no marker because they are of Songhay origin. Interestingly, these nouns are supplanted by Tamasheq masculine nouns. The nouns under (b) give the name of the male animal used for reproduction and a general term for the female animal. Many terms for sub-categories of these animals are attested in both gender forms.

(63) *Terms for animals*

	male	female	gloss
a)		<i>t-á-yamu-t</i>	cow without calf
		<i>t-a-sákaf-t</i>	cow without calf
		<i>t-a-zabána-t</i>	ewe having given birth twice in one year
b)	<i>a-zóolay</i>	<i>hinciní</i>	billy goat / (she-)goat
	<i>á-krar</i>	<i>feejí</i>	ram / sheep (ewe)
	<i>a-dés</i>	<i>hawú</i>	bull / cow
	<i>a-rgán</i>	<i>yáw</i>	stallion / female camel

The last term *a-rgán* 'big, male camel' is also found with the feminine affixes in order to designate a particularly tall female animal.

Some informants allow the term 'horse' to take the feminine morpheme for the female animal: *baarí* 'horse (male)', *t-a-báari-t* 'mare'. This term follows a different pattern from the one shown in the list above where the general Songhay noun designates the female animal.

Ethnic names can all take the feminine marker when a woman of that group is designated. At the same time this word is the expression used for the name of the language of the group. *a-ffúulen* > *t-a-ffúulen-t* 'Peul', *bambará* > *t-a-bambára-t* 'Bambara'.



3.2.2.3 *Diminutive*

Another meaning conveyed by the feminine marker is 'smallness'. Regular size items have no marker and the small variety takes it. This is illustrated under (a) on the list below. In many cases, the feature may be still present, but the meaning is rather lexicalized (b), and the difference goes beyond that of size. (c) illustrates another meaning of 'small' as 'less capable of doing something'. It is always a man who plays the guitar, so 'female' is no alternative reading for this noun.

(64)	<i>Diminutive</i>		
	regular size	small size	gloss
a)	<i>a-báktaw</i>	<i>t-a-báktaw-t</i>	cushion
	<i>ú-gmuz</i>	<i>t-ú-gmuf-t</i>	thumb
	<i>a-ýázar</i>	<i>t-a-ýázra-t</i>	temporary pond
	<i>a-jíírar</i>	<i>t-a-jíírar-t</i>	river bed
b)	<i>a-kábar</i>	<i>t-a-kábar-t</i>	wooden milk receptacle (camel; sheep/goat)
	<i>ée-ýar</i>	<i>t-ée-ýar-t</i>	cooking pot; pot
	<i>á-llay</i>	<i>t-á-llaq-q</i>	spear; carved stick (kind of)
	<i>éelay</i>	<i>t-ée-laq-q</i>	bone (kind of); knife
c)	<i>ággú</i>	<i>t-ággú-t</i>	player of traditional guitar; (male) learner of traditional guitar

Diminutive is not always a relevant factor in this kind of opposition. In fact, in a number of lexicalized items, the feminine refers to something bigger than the masculine.

(65)	<i>Irregular pairs</i>		
	<i>á-lkas</i>	<i>t-á-lkas-t</i>	tea glass; calabash
	<i>a-ná-żmay</i>	<i>t-a-ná-żmay-t</i>	needle; sewing machine
	<i>a-máaşur</i>	<i>t-a-máaşur-t</i>	forearm; force
	<i>á-mrar</i>	<i>t-á-mrar-t</i>	neck rope (baby camel); halter (adult camel)

A few Songhay cognates can take the feminine marker to mark the diminutive:

(66) *Diminutive on Songhay cognates*

<i>karfú</i>	<i>t-a-kárfu-t</i>	rope
<i>hamborí</i>	<i>t-a-hambóri-t</i>	mortar
<i>cíidaw</i>	<i>t-a-cíidaw-t</i>	bird

Note the stress shift of the two first expressions with the prefixed full syllable.

Many nouns have feminine morphology, but do not allow for gender opposition. Sometimes, this seems to be linked to the inherent semantics of the word, as in *t-a-líceŋ-t* 'little finger'.

One group of nouns which very regularly has feminine morphology, but that does not allow for a gender opposition are names for trees and shrubs. There are some exceptions with names of southern species and recently imported kinds. Only very few local trees have no *t-...-t* marker. (a) lists names with the morpheme. (b) gives some local trees without the morpheme.

(67) *Tree names*

	name	scientific name
a)	<i>t-áa-ma-t</i>	acacia ( <i>Acacia ehrenbergiana</i> )
	<i>t-éggar-t</i>	acacia ( <i>Acacia nilotica</i> )
	<i>t-á-zay-t</i>	acacia ( <i>Acacia senegal</i> )
	<i>t-á-dyəm-t</i>	baobab tree ( <i>Adansonia digitata</i> )
	<i>t-a-záyin-t</i>	jujube tree ( <i>Ziziphus mauritiana</i> )
	<i>t-a-bóoraq-q</i>	wild date tree ( <i>Balanites aegyptiaca</i> )
	<i>t-áa-dan-t</i>	shrub ( <i>Boscia senegalensis</i> )
b)	<i>óoruf</i>	acacia ( <i>Acacia seyal</i> )
	<i>á-ffagag</i>	acacia ( <i>Acacia raddiana</i> )
	<i>a-yarzébbi</i>	acacia ( <i>Acacia pennata</i> )

name	scientific name
<i>a-dáras</i>	tree ( <i>Commiphora africana</i> )

In one case, the fruit of the tree is referred to by means of the masculine form: *a-bóoray* 'fruit of wild date tree' *t-a-bóoraq-q* 'wild date tree'. In most cases the fruits of these trees have names with no relation to the name of the tree. An exception is *t-a-ráka-t* 'shrub (*Grewia tenax* or *Grewia mollis*)', a term which also refers to the fruit.

The use of the feminine morpheme in nominalization will be treated below (3.2.4.3).

### 3.2.3 Plural

All nouns are marked for number. When no overt number marking is present the noun is interpreted as singular.

Even when taking into account the difference between two types of basic nouns, rules for the formation of the plural are quite complicated.

Songhay of Gao (KS) distinguishes a definite and an indefinite plural morpheme. Tadaksahak nouns are not marked morphologically for 'definiteness', and have therefore no opposition between definite and indefinite plural forms.

Type 1 nouns have four different subclasses regarding pluralization. In broad terms they can be grouped etymologically. One class represents nouns from Songhay, one class includes nouns from languages other than Tamasheq or Arabic, the third class covers many Arabic loans. And finally the last class covers Tamasheq cognates without a prefix.

Type 2 nouns often have cognates in Tamasheq and use a whole set of possible vowel schemes and suffixes also found in that language. Yet the scheme used for a particular noun in Tadaksahak does not necessarily correspond to the one used in Tamasheq.

#### 3.2.3.1 Type 1 noun plurals

There are four different schemes for plurals of type 1 nouns.

(68) *Type 1 nouns: Plural morphemes*

1)		STEM	<i>-en/-an</i>
2)			<i>-tan</i>
3)	<i>id-</i>		
4)			<i>-an</i>

3.2.3.1.1 *Class 1: -en/-an, -yen/-yan*

Class 1 concerns etymological Songhay nouns.

*-en* PL may be related to Songhay /yan/, the indefinite plural morpheme, but the exact historical processes behind it are not yet clear.

When the suffix is joined to a vowel-final stem, the final vowel of the stem is dropped. This is illustrated under (a) below. *-en* is the default form; the allomorph *-an* occurs when the root has /e/ in the stem. This is illustrated under (b).

(69) *Songhay cognates*

	singular	plural	gloss
a)	<i>borá</i>	<i>bor-én</i>	person/people
	<i>bundú</i>	<i>bund-én</i>	stick
	<i>boofí</i>	<i>boof-én</i>	ashes (kind of)
	<i>jinjirí</i>	<i>jinjir-én</i>	prayer
b)	<i>ceedí</i>	<i>ceed-án</i>	spoon
	<i>deedí</i>	<i>deed-án</i>	Arabic gum
	<i>geení</i>	<i>geen-án</i>	louse
	<i>feejí</i>	<i>feej-án</i>	sheep
	<i>yeerí</i>	<i>yeer-án</i>	vomiting

For di- or tri-syllabic nouns stress does normally not change as illustrated above and in the list below.

(70) *Plurals without stress shift*

singular	plural	gloss
<i>tugúdu</i>	<i>tugúd-en</i>	tree/wood
<i>báaya</i>	<i>báay-en</i>	love/preference
<i>gánda</i>	<i>gánd-en</i>	earth/ground
<i>almán</i>	<i>almán-en</i>	herd (of animals)

Monosyllabic stems behave differently. Only a small number keep the stress on the stem (b) (marked with ^ over the vowel) whereas the majority shift stress on the plural morpheme (and any long vowel in the stem is realized). See illustrations under (a).

(71) *Monosyllabic stems*

	singular	plural	gloss
a)	<i>cáw</i>	<i>caaw-én</i>	call
	<i>mún</i>	<i>muun-én</i>	pouring
	<i>héw</i>	<i>heew-án</i>	wind
b)	<i>mân</i>	<i>máan-en</i>	name
	<i>gôn</i>	<i>góon-en</i>	swallow
	<i>bêr</i>	<i>béer-an</i>	older sibling
	<i>fûn</i>	<i>fúun-en</i>	hole

Some noun stems with a velar stop as their last consonant undergo phonological changes (see a) below). These changes are not predictable since some stems do not change, as illustrated under (b) below:

(72) *Palatalization of g/k preceding plural suffix*

	singular	plural	gloss
a)	<i>hangá</i>	<i>hanj-én</i>	ear
	<i>bangú</i>	<i>banj-én</i>	well
	<i>angú</i>	<i>anj-én</i>	place
	<i>farká</i>	<i>farc-én</i>	donkey
b)	<i>hinká</i>	<i>hink-én</i>	two

singular	plural	gloss
<i>gungú</i>	<i>gung-én</i>	belly

This class is exclusively of Songhay stock but does not cover all Songhay cognates found in Tadasahak.

There exist a few items that take a /-yVn/ plural morpheme. In all cases a /w/ precedes the plural morpheme. The noun 'jinn' is of uncertain origin whereas 'cow' and 'bowl' have Songhay cognates.

(73) *Rare plural with -yen/-yan*

singular	plural	gloss
<i>bəkáw</i>	<i>bəkáw-yan</i>	jinn
<i>hawú</i>	<i>haw-yén</i>	cow
<i>tú</i>	<i>tuw-yén</i>	large wooden bowl

3.2.3.1.2 *Class 2: -tan*

Many vowel-final nouns take this suffix as well as nouns borrowed from languages other than Tamasheq or Arabic.

Under (a) we illustrate vowel final stems of local origin. Many nouns ending in /o/ use this pattern. (b) gives some items of other languages, ending in both consonants and vowels using this same morpheme.

(74) *Vowel final nouns:*

	singular	plural	gloss
a)	<i>álla</i>	<i>álla-tan</i>	food for a journey
	<i>áaši</i>	<i>áaši-tan</i>	side of the belly
	<i>íiba</i>	<i>íiba-tan</i>	loss
	<i>bukturú</i>	<i>bukturú-tan</i>	toad
	<i>heebú</i>	<i>heebúu-tan</i>	market
	<i>biŋgí</i>	<i>biŋgí-tan</i>	male donkey (KS <i>binji</i> )
	<i>bána</i>	<i>bána-tan</i>	salary (KS <i>bana</i> 'pay')
	<i>booráy</i>	<i>booráy-tan</i>	giraffe (KS: <i>bura</i> )
b)	<i>kássaw</i>	<i>kássaw-tan</i>	prison (< French <i>cachot</i> )

<i>bídaw</i>	<i>bídaw-tan</i>	canister (< French <i>bidon</i> )
<i>fátaw</i>	<i>fátaw-tan</i> ~ <i>fát-an</i>	manufactured recipient (< English <i>pot</i> )
<i>fatílla</i>	<i>fatílla-tan</i>	flashlight (KCH <i>fitila</i> < Arabic <i>fatílla</i> 'wick')
<i>aragó</i>	<i>aragóo-tan</i>	radio (< French <i>radio</i> )
<i>bitígi</i>	<i>bitígíi-tan</i>	shop (< French <i>boutique</i> )

When speakers are not sure about a plural for a certain noun they often offer *-tan*, which seems to be the strategy that is allowed and understood even if it is not necessarily the 'correct' one.

### 3.2.3.1.3 Class 3: *id-*

This class mostly consists of loans from Arabic. These nouns are also present in Tamasheq, but form their plural in a different way, e.g. Tamasheq: /álwáli/ 'saint' pl: /álwáli-tän/ as compared to Tadaśahak *alwalí* pl: *id-álwali*.

All examples consist of nouns taken over with the Arabic article. The examples under (a) show forms where the article is not assimilated, while the forms under (b) have the regular Arabic assimilation of *al-* to following coronal consonants.

#### (75) *Plurals of Arabic loans*

	singular	plural	gloss
a)	<i>alwalí</i>	<i>id-álwali</i>	saint (< Arabic)
	<i>alḃáaruḃ</i>	<i>id-alḃáaruḃ</i>	gun (kind of) (< Arabic)
	<i>alkáda</i>	<i>id-álkada</i>	bowl for milk (kind of) (< Arabic: <i>qadaḥ</i> )
	<i>álham</i>	<i>id-álham</i>	rage (< Arabic)
b)	<i>attahalíl</i>	<i>id-attahalíl</i>	leather sheath around book (< Arabic)
	<i>assóq</i>	<i>id-assóq</i>	market (< Arabic)
	<i>assáḥ</i>	<i>id-assáḥ</i>	strength (< Arabic)
	<i>annabí</i>	<i>id-ánnabi</i>	prophet (< Arabic)
	<i>affák</i>	<i>id-áffak</i>	doubt (< Arabic)

singular	plural	gloss
<i>attaŕám</i>	<i>id-áttaŕam</i>	staple food (cereal) (< Arabic)
<i>assúwak</i>	<i>id-ássuwak</i>	teeth cleaner (< Arabic)
<i>Ajjaríf</i>	<i>Id-ájjarif</i>	clan name (< Arabic)

For many of the examples above the addition of the prefix leads to a stress shift to the left. When a shift occurs, stress falls on the first syllable of the noun after the prefix.

Some exceptions are found in our corpus where this pattern does not hold. The noun *adiktáb* / *id-idíktab* 'booklet' changes the initial /a/ to /i/ after the prefix *id-*. Some more Arabic nouns ending in a vowel add the *-tan* suffix of class 2 to the normal prefix, e.g. *alfáqi* / *id-alfáqi-tan* 'religious teacher'. The term for '(tea) glass' has changed category and forms the plural like a Tamasheq cognate, i.e. *á-lkas* / *í-lkas-an*.

Some informants give different forms from those on the list, e.g. instead of *id-álkada* 'milk bowls' and *id-assáñ* 'strength pl.' they use *id-alkáda-tan* and *id-ássañ-en* 'strength pl'. This may be an indication that some of these infrequently used plurals are not rigidly established.

#### 3.2.3.1.4 Class 4: *-an*

In a small number of Tamasheq cognates the first part of the noun resembles the nominal prefix, but pluralization either does not affect the vowel quality, or affects it in an irregular way. Therefore, we consider these nouns to be prefixless in Tadaksahak (whatever their status in Tamasheq). This class is supplemented by a small number of nouns which do not have the shape of a prefixed noun at all. They divide into smaller subclasses that behave in different ways. One class adds the regular suffix for Tamasheq cognates *-an* to the unchanged stem. These nouns may be consonant- or vowel-initial. Under (a) on the list below consonant-initial nouns are given and (b) vowel-initial nouns.

##### (76) Tamasheq cognates without prefix

	singular	plural	gloss
a)	<i>téysa</i>	<i>táys-an</i>	sheep/goat



	singular	plural	gloss
	<i>fáḍaṇ</i>	<i>fáḍaṇ-an</i>	other
	<i>sáwsut</i>	<i>sáwsut-an</i>	mat (kind of)
	<i>tíidi</i>	<i>tíid-an</i>	sweat
b)	<i>áafol</i>	<i>áafol-an</i>	edge
	<i>áarab</i>	<i>áarab-an</i>	Arab
	<i>éekat</i>	<i>éekat-an</i>	measure
	<i>áwrəʒ</i>	<i>áwrəʒ-an</i>	heel

A few vowel initial disyllabic stems re-syllabify and then add the plural suffix. The syllable after the initial long vowel is collapsed and forms two syllables with the shortened initial vowel and the plural suffix, e.g. V:-C<sub>1</sub>VC<sub>2</sub> becomes V-C<sub>1</sub>C<sub>2</sub>-an. The examples are below.

(77) *Plurals with re-syllabification*

	singular	plural	gloss
	<i>éelaw</i>	<i>élw-an</i>	elephant
	<i>éerəʃ</i>	<i>érʃ-an</i>	depression (ground)
	<i>íiləs</i>	<i>íls-an</i>	tong
	<i>íidəm</i>	<i>ídm-an</i>	supplication

The term *éelay* 'kind of bone' does not shorten the initial /e/ when resyllabified *éely-an*.

One noun of this pattern takes the suffix *-in* instead of regular *-an*: *óoruf / órf-in* 'tree, sp.'.

### 3.2.3.2 Type 2 noun plurals

Nouns of this type have a prefix that marks them for singular. This is mostly *a-* and in some cases *e-* or *u-*. The prefix is replaced by a plural prefix *i-* in all cases.

The following overview shows some of the possibilities for forming plurals for this type of noun. Combinations of the different formations are also possible and some commonly used nouns allow for two different plural forms.

(78) *Type 2 nouns: Plural morphemes*

prefix	stem	suffix
<i>i-</i>		<i>-an / -en / -ən / -in</i>
<i>i-</i>		<i>-tan</i>
<i>i-</i>	apophony	<i>(-an)</i>
<i>i-</i>	resyllabification	<i>(-an)</i>
<i>t-ə-</i>		<i>-in / -an</i>

The morphemes between brackets indicate that the majority of the nouns do not take this morpheme but that a smaller number of nouns take the suffix in addition to the other plural marking features.

In the paragraphs below the different patterns will be illustrated and discussed.

3.2.3.2.1 *Plural pattern /i-STEM-an/*

The pattern /i-STEM-an/ is the most frequent plural pattern. The suffix shows different vowel qualities. The preceding vowels in the stem give some indications of which suffix to use but there are many exceptions to this. When the stem vowel is non-high vowels (/o/, /e/ and /a/), the suffix tends to have a low vowel. This is illustrated under (a) below. In addition, stems with a consonant cluster preceding the plural morpheme take /-an/. See illustrations under (b). The suffix has schwa when it is preceded by a high vowel (/i/, /u/, /ə/) in an open syllable. See examples under (c).

(79) *Plural scheme /i-...-an/ and variants*

	singular	plural	gloss
a)	<i>a-náftaɣ</i>	<i>i-náftaɣ-an</i>	visitor
	<i>á-mɣar</i>	<i>í-mɣar-an</i>	old man
	<i>á-ɣlal</i>	<i>í-ɣlal-an</i>	trough
	<i>a-báydog</i>	<i>i-báydog-an</i>	thief
	<i>a-bóobaz</i>	<i>i-bóobaz-an</i>	cross-cousin
	<i>a-fázaza</i>	<i>i-fázaz-an</i>	honey badger
	<i>á-ɣalla</i>	<i>í-ɣall-an</i>	court wall

	singular	plural	gloss
	<i>a-ſíggel</i>	<i>i-ſíggel-an</i>	lost animal
	<i>a-bákkel</i>	<i>i-bákkeel-an</i>	skinny animal
	<i>a-lánjez</i>	<i>i-lánjez-an</i>	drum (kind of)
b)	<i>á-trif</i>	<i>í-tərɸ-an ~ í-trif-en</i>	wound
	<i>a-mayálf</i>	<i>i-mayálf-an</i>	jaw (bone)
	<i>a-γáſɪnɸ</i>	<i>i-γíſɪnɸ-an</i>	bone (kind of)
		<i>i-ʒíβɜ-an</i>	gift given at the naming ceremony
c)	<i>a-náyfil</i>	<i>i-náyfil-ən</i>	clove
	<i>a-γéeyər</i>	<i>i-γéeyər-ən</i>	meat (kind of)
		<i>í-γməm-ən</i>	milk (kind of)
		<i>i-góɾɪɜ-ən</i>	black solution

Only very few items take the variant /-en/ and /-in/ of the suffix. When the suffix is preceded by a high vowel (/i/, /u/) in an open syllable and the last consonant is a sibilant, most often /-en/ is used (but consider the last example above). This is illustrated under (a) below; (b) provides an item with the /-in/ plural ending.

(80) *Plurals with /i-...-en/ and /i-...-in/*

	singular	plural	gloss
a)	<i>ú-gmuɜ</i>	<i>í-gmuɜ-en</i>	thumb
	<i>á-trɪɜ</i>	<i>í-trɪɜ-en</i>	hail
	<i>á-trif</i>	<i>í-trif-en ~ í-tərɸ-an</i>	wound
		<i>í-zr-en</i>	endurance
		<i>i-sk-én</i>	comb
b)	<i>a-rgán</i>	<i>i-rgán-in</i>	camel (kind of)

3.2.3.2.2 *Plural pattern /i-STEM-tan/*

This minor plural pattern is found with nouns ending in a vowel. Not all nouns ending in a vowel take this suffix.

(81) *Plural scheme /i-...-tan/*

singular	plural	gloss
<i>a-bútu</i>	<i>i-bútu-tan</i>	navel
<i>A-dóogiri</i>	<i>I-dogíri-tan</i>	clan name
<i>a-balibáali</i>	<i>i-balibáali-tan</i>	sheep breed (kind of)
<i>á-gaŋgo</i>	<i>i-gáŋgo-tan</i>	croup
<i>á-yaba</i>	<i>i-yába-tan</i>	bit (horse)
<i>áa-la</i>	<i>ii-la-tan</i>	(tea) leaf

### 3.2.3.2.3 *Plural patterns with apophony*

Several patterns of apophony are found in Tadaksahak. The vowel pattern of the noun in the singular does not seem to be important. Different vowel combinations of the noun in the singular can turn into a same plural pattern.

#### 3.2.3.2.3.1 *Plural pattern i-CuC(C)aC*

This plural pattern is found with the structure a-CVC(C)VC. While there are many possible vocalizations in the singular, the plural always has the same pattern.

(82) *Plural pattern i-CuC(C)aC*

singular	plural	gloss
<i>a-rázum</i>	<i>i-rúzam</i>	bag for cereal
<i>a-wátay</i>	<i>i-wútay</i>	year
<i>a-sáabəl</i>	<i>i-súubal</i>	seam
<i>a-yáanib</i>	<i>i-yúunab</i>	pen
<i>a-máagor</i>	<i>i-múugar</i>	camel (kind of)
<i>a-yéetas</i>	<i>i-yúutas</i>	branch (kind of)
<i>a-húllum</i>	<i>i-húllam</i>	rope (kind of)
<i>a-húrhur</i>	<i>i-húrhar</i>	hair stripe (kind of)

Stress and long vowels do not change with apophony.

3.2.3.2.3.2 Plural pattern *i-CəC(C)aC*

This plural pattern is found with the nouns of the shape a-CVC(C)VC. Most singulars have /o/ in the last syllable. This is illustrated under (a). Also nouns with homophonous vowels in the singular are found in this group. The examples are under (b). The last example (c) on the list shows that the above described singular patterns are not the only vowel patterns that can take this plural scheme.

(83) Plural pattern *i-CəC(C)aC*

	singular	plural	gloss
a)	<i>a-bákot</i>	<i>i-békat</i>	old tent skin
	<i>a-maðoŋ</i>	<i>i-médaŋ</i>	pasture
	<i>a-bátol</i>	<i>i-bétal</i>	shrub formation
	<i>a-zábzod</i>	<i>i-zébzad</i>	eyebrow
	<i>a-báryom</i>	<i>i-béryam</i>	kid (kind of)
b)	<i>a-sággən</i>	<i>i-séggan</i>	place of rest
	<i>a-bélbəl</i>	<i>i-bélbəl</i>	bowl (kind of)
	<i>a-lúkkuḍ</i>	<i>i-lékkəḍ</i>	whip
	<i>a-sútfur</i>	<i>i-sétfar</i>	blanket (kind of)
c)	<i>a-fándis</i>	<i>i-féndas</i>	half-brother

Schwa may undergo assimilations. The following examples show that the same *i-CəC(C)aC* plural pattern can be realized with an /i/ in the place of /ə/ when the preceding consonant is palatal. The examples are under (a). If the consonant following /ə/ is /ɣ/ then it is realized as /a/.

(84) Variant of plural pattern *i-CəC(C)aC*

	singular	plural	gloss
a)	<i>a-cílcil</i>	<i>i-cílcal</i>	marrow
	<i>a-fábḍoṛ</i>	<i>i-fíbḍaṛ</i>	sacrifice
b)	<i>a-sáɣon</i>	<i>i-sáɣan</i>	rope (kind of)
	<i>a-záɣol</i>	<i>i-záɣal</i>	castrated ram
	<i>á-maɣo</i>	<i>í-maɣa</i>	rope (kind of)

3.2.3.2.3.3 Plural pattern *i-CaC(C)an*

This plural pattern is not frequent. Singular stems containing non-low vowels can take this pattern. The examples are under (a). The examples under (b) illustrate how the apophony influences the realization of the consonants in the stem.

(85) *Plural pattern i-CaC(C)an*

	singular	plural	gloss
a)	<i>a-lílli</i>	<i>i-láll-an</i>	noble person
	<i>a-dími</i>	<i>i-dám-an</i>	gazelle, sp.
	<i>áa-guz</i>	<i>í-gaz-an</i>	sinew (kind of)
	<i>a-yéyi</i>	<i>i-yáy-an</i>	crevice
	<i>a-kóko</i>	<i>i-kák-an</i>	tree, sp.
b)	<i>a-jíji</i>	<i>í-gag-an</i>	luggage
	<i>a-bíji</i>	<i>í-bag-an</i>	hyena

Another group of nouns exposes this same pattern with different vowels in the singular stem. Some of them expose non-low vowels in the stem which would classify them in the list above. However, they all systematically geminate the final consonant of the stem and some expose low vowels in the stem.

(86) *Duplication of stem final C*

	singular	plural	gloss
	<i>áa-har</i>	<i>í-harr-an</i>	lion
	<i>áa-gur</i>	<i>í-garr-an</i>	castrated animal
	<i>áa-zəz</i>	<i>í-zazz-an</i>	vulture, sp.
	<i>áa-fir</i>	<i>í-farr-an</i>	extend
	<i>áa-jit</i>	<i>í-jatt-an</i>	plate of salt
	<i>áa-dəf</i>	<i>í-daff-an</i>	bone (kind of)
	<i>ée-yar</i>	<i>í-yarr-an</i>	cooking pot
	<i>ée-zar</i>	<i>í-zarr-an</i>	shoulder
	<i>ée-jaf</i>	<i>í-jaff-an</i>	dune

### 3.2.3.2.4 Plural pattern with resyllabification and /-an/

This pattern involves stems with two syllables. The vowel of the first syllable is neutralized to schwa and the second syllable is collapsed to form a new syllable with the suffix, e.g. a-C<sub>1</sub>VC<sub>2</sub>VC<sub>3</sub> becomes i-C<sub>1</sub>əC<sub>2</sub>C<sub>3</sub>-an. See illustrations under (a) below. Very few nouns with the a-CCVC singular pattern also resyllabify to the above pattern. The examples are under (b).

#### (87) Resyllabification and /-an/

	singular	plural	gloss
a)	<i>a-kábar</i>	<i>í-kəbr-an</i>	milk receptacle
	<i>a-líkaf</i>	<i>í-ləkf-an</i>	horse saddle
	<i>a-lákat</i>	<i>í-ləkt-an</i>	branch (kind of)
	<i>a-lámis</i>	<i>í-ləms-an</i>	(guinea fowl) chick
	<i>a-mález</i>	<i>í-məlz-an</i>	milk (kind of)
b)	<i>á-krəm</i>	<i>í-kərm-an</i>	dry piece of Arabic gum
	<i>á-yrəm</i>	<i>í-yərm-an</i>	town/village

### 3.2.3.2.5 Minor plural patterns

The following plural patterns described do not involve more than a handful of items.

#### 3.2.3.2.5.1 Stems with final /w/ and /y/

In type 1 and type 2 nouns there are stems with final /w/ and /y/ that display different behavior. Many nouns lose the final C and the vowel of the suffix is changed. In the case of /w/ the suffix contains /a/ also for Songhay cognates and with /y/ many suffixes are /-en/ instead of the expected /-an/ for Tamasheq cognates.

The list below illustrates di-syllabic nouns with final /w/. Words under (a) are Tamasheq cognates and those under (b) are Songhay cognates. The nouns under (a) lose the final consonant of the stem but the /-an/ suffix is the default for Tamasheq cognates. 'bird' is the item that exposes special behavior since this word should have the /-en/ suffix for plural. 'speech' has /ee/ in the stem and therefore must take /-an/ even as a Songhay cognate.

(88) *Stems dropping -w#*

	singular	plural	gloss
a)	<i>a-máaraw</i>	<i>i-máar-an</i>	relative (family)
	<i>a-báktaw</i>	<i>i-bákt-an</i>	old cushion
	<i>a-ŷígnaw</i>	<i>i-ŷígn-an</i>	thread (sew)
	<i>ée-caw</i>	<i>í-cc-an</i>	root
	<i>áfraw</i>	<i>áfr-an ~ í-fr-an</i>	feather; wing
b)	<i>cíidaw</i>	<i>cíid-an</i>	bird
	<i>léelaw</i>	<i>léel-an</i>	speech

Monosyllabic Songhay cognates do not lose the final /w/, i.e. ‘insult’ *wâw* / *wáaw-en* ‘female camel’ *yáw* / *yaaw-én*.

/y/ final nouns show more variety in behavior than the /w/ final nouns described above. For Songhay cognates the suffix /-en/ is expected. This is illustrated under (a) below. But there are Tamasheq cognates that also take this suffix as shown under (b).

(89) *Stems dropping -y#*

	singular	plural	gloss
a)	<i>cáy</i>	<i>c-én</i>	leg; foot
	<i>ṭaabáy</i>	<i>ṭaab-én</i>	turban (general)
	<i>caráy</i>	<i>car-én</i>	friend
	<i>ízzay</i>	<i>ízz-en</i>	offspring; young animal; fruit
b)	<i>a-fártay</i>	<i>i-fárt-en</i>	mat (kind of)
	<i>a-kárfay</i>	<i>i-kárf-en</i>	head scarf
	<i>a-žémmay</i>	<i>i-žémm-en</i>	leather stripe

A possible explanation for the Tamasheq cognates is that the final /y/ amalgamates with the suffix and raises the low vowel /a/ to /e/. Consider also the examples under 3.2.3.2.1 that take this plural suffix.

Two Songhay high frequency items, *kóy* ‘owner, master’ and *surgóy* ‘woman’, also drop their final /y/ in the plural but the vowel of the stem



is preserved. This leads to the plural forms *kó-n* and *surgó-n* respectively.

Final /y/ is not dropped in all cases. Monosyllabic type 1 nouns do not drop it and some type 2 nouns use other strategies for plurals than the above described behavior.

(90) *Monosyllabic Songhay cognates with final /y/*

singular	plural	gloss
<i>záy</i>	<i>zayén</i>	swear (n)
<i>wáy</i>	<i>waayén</i>	woman

One item behaves like above Songhay cognates and adds a plural with /-en/ despite being of Tamasheq origin: *áṇay* / *áṇay-en* 'disgust'.

The following list gives examples of /y/-final Type 2 nouns that use different strategies than described above. The example under (a) takes the expected /-an/ suffix, but with gemination of the final /y/. (b) illustrates resyllabification with final /y/ and (c) apophony.

(91) *Other strategies with /y/ final nouns*

	singular	plural	gloss
a)	<i>áa-way</i>	<i>í-wayy-an</i>	young (goat and sheep)
b)	<i>a-múgay</i>	<i>i-múgy-en</i>	camel (kind of)
	<i>a-táyay</i>	<i>i-táy-en</i>	bald head
c)	<i>a-ḍálay</i>	<i>i-ḍálay ~ i-ḍá-en</i>	lip
	<i>a-wátay</i>	<i>i-wútay</i>	year

### 3.2.3.3 Nouns with the prefix t(a)-

All the strategies described for the Type 2 nouns can be found with nouns with the feminine prefix *t(a)-*. The plural prefix *i-* for plurals is only realized as /i/ when the high consonants /y/ or /j/ follow immediately, e.g. *t-á-yhas-t* / *t-í-yhas* 'kind of saddle' or *t-ée-jaf-t* / *t-í-jaff-an* 'small dune'. Normally it is pronounced schwa.

The examples above show that the suffix *-t* of these nouns is always absent when the plural suffix is present. We can therefore expect that final /w/ and /y/ behave as in nouns without the suffix.

From Tamasheq it could be expected that the suffix would be *-en* for all these feminine nouns. In fact, some nouns have this suffix, but there are many that take the *-an* suffix. Resyllabification and apophony are observed and some of the minor patterns, too. In short, the whole array of possibilities for Type 2 nouns occurs.

The illustrations below show under (a) nouns with plural suffix *-in*. (b) has resyllabification of the last syllable and a stress shift together with the *-in* suffix. (c) shows nouns taking the regular *-an* suffix and one item with *-ən*. (d) shows two different kinds of apophony /i-u-a/ and /i-ə-a/. (e) lists /w/ final nouns that drop the consonant and nouns under (f) drop the final /y/ and realize an *-en* suffix.

(92) *Nouns with the feminine marker*

	singular	plural	gloss
a)	<i>t-a-boyán-t</i>	<i>t-ə-boyáan-in</i>	old sheep
	<i>t-a-gándar-t</i>	<i>t-ə-gándar-in</i>	hole (kind of)
	<i>t-á-ǧləm-t</i>	<i>t-é-ǧləm-in</i>	wrong accusation
b)	<i>t-a-bákar-t</i>	<i>t-é-bəkr-in</i>	ewe
	<i>t-a-dáyan-t</i>	<i>t-é-dəyn-in</i>	stomach, sp.
	<i>t-a-dáber-t</i>	<i>t-é-dəbr-in</i>	pigeon
	<i>t-á-far-t</i>	<i>t-é-fr-in</i>	rope (kind of)
c)	<i>t-a-bóobas-t</i>	<i>t-ə-bóobaz-an</i>	cross cousin
	<i>t-a-húlel-t</i>	<i>t-ə-húlal-an</i>	female foal of donkey
	<i>t-a-mandáras-t</i>	<i>t-a-mandáras-an</i>	root, sp.
	<i>t-á-blel-t</i>	<i>t-é-blal-an</i>	grain; pearl
	<i>t-a-ból-t</i>	<i>t-ə-búul-an</i>	small heap
	<i>t-á-llijít-t</i>	<i>t-é-llijid-ən</i>	cushion
d)	<i>t-a-káafəṛ-t</i>	<i>t-ə-kúufaṛ</i>	European/Western woman
	<i>t-a-búuyer-t</i>	<i>t-ə-búuyar</i>	female camel

	singular	plural	gloss
	<i>t-a-déekəlt</i>	<i>t-ə-dúukal</i>	underside of hoof
	<i>t-a-yádit-t</i>	<i>t-ə-yédad</i>	female kid
	<i>t-á-ddabi-t</i>	<i>t-é-ddəba</i>	night (kind of)
	<i>t-a-mázdoq-q</i>	<i>t-ə-mázday</i>	homestead
	<i>t-a-báykər-t</i>	<i>t-ə-bíykar</i>	bitch
e)	<i>t-a-bálaw-t</i>	<i>t-ə-báll-an</i>	snail shell
	<i>t-a-dícaw-t</i>	<i>t-ə-dícc-an</i>	tent pole (kind of)
	<i>t-á-draw-t</i>	<i>t-é-dr-an</i>	skin fold
f)	<i>t-a-móysay-t</i>	<i>t-ə-móys-en</i>	carcass
	<i>t-a-róday-t</i>	<i>t-ə-ród-en</i>	fruit, sp.
	<i>t-á-zay-t</i>	<i>t-á-zz-en</i>	shrub, sp.

### 3.2.3.3.1 Some special plurals

There are many nouns that do not fit into the above slots without additional rules. Below are some particularly odd cases that we wish to present.

Some of these plurals invert consonants (a). Some nouns add a suffix /-wan/ (b). In some plurals consonants surface that are absent in the singular and vice versa (c). The items under (d) add a plural suffix with an intervening /w/ sound. (e) gives an item with the feminine prefix, apophony and *-wan* suffix, (f) shows a high frequency item with an irregular consonant pattern.

#### (93) Odd plurals

	singular	plural	gloss
a)	<i>a-láweg</i>	<i>í-legw-an</i>	branch (kind of)
	<i>a-bájez</i>	<i>í-bəzg-an</i>	pot (kind of)
	<i>a-ráday</i>	<i>i-ryáad-in</i> <i>~ í-rəyd-in</i>	old goat
b)	<i>áa-ḍaḍ</i>	<i>í-ḍəḍ-wan</i>	finger
	<i>áa-zar ~ á-zru</i>	<i>í-zər-wan</i>	sinew

	singular	plural	gloss
c)	<i>t-áa-qas-t</i>	<i>t-é-wəys-in</i>	game (animal)
	<i>a-dága!</i>	<i>i-dúu!-in</i>	father-in-law / in-law family
d)	<i>t-áa-yəssa</i>	<i>t-é-yəs-w-in</i>	body
	<i>t-á-ssaga</i>	<i>t-é-ssəg-w-in</i>	side
e)	<i>t-á-kooba</i>	<i>t-é-kab-wan</i>	sword
f)	<i>t-á-ŋgud</i>	<i>t-é-mgad-ən</i>	girl

### 3.2.3.3.2 Plurals without singular

A number of nouns are only found in the plural form. Semantically this includes items that appear as pairs (e.g. glasses) or designate a number of items that belong together (e.g. gifts for certain occasions), but also many natural liquids.

Find examples on the list below. (a) shows pairs, (b) other items and (c) natural liquids with Songhay cognates. Note that 'milk', *huuwá*, is not a plural despite being a liquid. (d) are liquids with Tamasheq cognates.

#### (94) Pairs and other plurals

	plural	gloss
a)	<i>í-dmar-an</i>	chest
	<i>i-fútu-tan</i>	palms of hand
	<i>ṭúurat-an</i>	lungs
	<i>t-ə-máswad-an</i>	(sun) glasses
	<i>í-gag-an</i>	load (on animal)
b)	<i>í-kád-an</i>	fireplace (three stones)
	<i>í-mafw-an</i>	moustache
	<i>t-ə-béddar</i>	gift (after journey)
	<i>i-zíbz-an</i>	gift (name giving ceremony)
	<i>í-gayd-an</i>	luggage end in tent
	<i>i-zínn-an</i>	heaven

	plural	gloss
	<i>i-ziléflaf</i>	cloud (kind of)
	<i>t-ə-kúf-an</i>	foam
	<i>nuun-én</i>	vapor, smoke
c)	<i>ary-én</i>	water
	<i>kud-én</i>	blood
	<i>hangar-én</i>	urine
d)	<i>áznay-an</i>	amniotic fluid
	<i>árnan-an</i>	(snake)venom
	<i>i-mátw-an</i>	saliva
	<i>i-médđ-an</i>	tears
	<i>i-wínzir-an</i>	blood from nose
	<i>i-ffínfar</i>	nasal mucus

### 3.2.3.3.3 *Double plurals*

Two items are found that allow for a double plural.

The plural of *taɣmú* 'sandal, shoe' is interpreted as 'a pair of ...' and several pairs can be marked by adding a second plural on the pluralized noun which is *taɣm-én-en* 'pairs of sandals'.

The item 'person' with the plural 'people' does not form a pair but people can be found in groups. The double plural is used to designate groups of people randomly scattered over an area. *borá* 'person/somebody' *bor-én* 'people' *bor-én-en* 'groups of people'.

## 3.2.4 *Nominalization*

### 3.2.4.1 *Verbal nouns*

There are different strategies to derive nouns from verbs. Songhay and Tamasheq cognates do not behave the same way.

#### 3.2.4.1.1 *Zero morphology: Songhay cognates*

Songhay cognates have no morphological distinction between verbs and verbal nouns. When functioning as a verbal noun, these stems

can take a plural morpheme and take positions in the sentence where nouns occur. Examples:

(95) *Songhay cognates with zero-derivation*

stem	verb	verbal noun	Songhay (KCH)
<i>wâw</i>	to insult	insult (n)	/wow/ 'to insult'
<i>mún</i>	to pour	pouring	/mun/ 'to pour'
<i>dudú</i>	to pour	pouring	/doori/ 'to pour' KS
<i>kúd</i>	to pasture animals	pasturing	/kur/ 'to herd animals'
<i>horrá</i>	to be bitter	bitterness	/hottu/ 'to be bitter'
<i>gaŋgá</i>	to prevent from	prevention	/gaŋga/ 'to prevent from'

There are a few roots of Tamasheq and other origins with the same behavior.

(96) *Non-Songhay cognates with zero derivation*

stem	verb	verbal noun	Tamasheq
<i>lúku</i>	to be dirty (water)	dirtyness (water)	/ələk/ 'fill with tannin'
<i>lǎŋkəm</i>	to sit behind s.b.	following (n)	/lǎnkǎm/ 'to sit behind s.b.'
<i>máŋŋa</i>	to be without grazing	red earth	/mǎŋnu/ 'to be deserted'
<i>yilká</i>	to disdain	disdain (n)	/alku/ 'to disdain'
<i>fássar</i>	to interpret (Koran)	interpretation	/fǎssǎr/ 'to explain (text)' < Arabic
<i>soñor</i>	to eat during the night (Ramadan)	night meal	< Arabic
<i>dabés</i>	to increase	increase (n)	

*bə́ləq* to be dusty dustiness

In addition some verbs with a causative morpheme take zero morphology as nouns.

(97) *Causatives with zero-derivation in the verbal noun*

stem	verb	verbal noun	Tamasheq
<i>z-ázəl</i>	to drive	driving (n)	/azəl/ 'to run'
<i>f-íḍəŋ</i>	to count	counting	/fíḍən/ 'to count'
<i>s-ədwá</i>	to make return	returning in afternoon	/adwu/ 'to return in afternoon'
<i>s-ə́rəʃ</i>	to humiliate	humiliation	/sərəʃ/ 'to cause to go down'
<i>f-ídu</i>	to assemble	assembling (n)	/fíḍəw/ 'to assemble'
<i>s-əkná</i>	to show	showing	/səkna/ 'to show'

All the examples above lack the nominalizer prefix that would normally be present with Tamasheq cognates.

3.2.4.1.2 *Verbal nouns of Tamasheq cognates*

Verbs of Tamasheq origin use different strategies for nominalization. The strategies described below concern mostly abstract nouns or verbal nouns that could be paraphrased with 'the doing of X' or 'the being of X quality' where X stands for the semantics of the verb.

Verbs with three or more syllables prefix an *a-* for nominalization and change the stress pattern. Nouns have the stress on the penultimate syllable whereas the verbs have the ante-penultimate syllable stressed. Under (a) transitive and under (b) intransitive verbs are given. A long consonant in the verb stem is not long in the noun.

(98) *a- nominal prefix and stress shift*

	verb	noun	gloss
a)	<i>kaṭámkaṭam</i>	<i>a-kaṭamkáṭam</i>	to cut into pieces
	<i>fí-ffigəl</i>	<i>a-fí-ffiggəl</i>	to look for (animal)
	<i>z-úmmumur</i>	<i>a-z-umúmur</i>	to creep

	verb	noun	gloss
	<i>z-álləzləz</i>	<i>a-z-ələzləz</i>	to shake (tree)
b)	<i>hələklək</i>	<i>a-hələklək</i>	to pant
	<i>hənəşnəş</i>	<i>a-hənəşnəş</i>	to whine (child)
	<i>zəbəlbəl</i>	<i>a-zəbəlbəl</i>	to cry (camel)
	<i>nə-gərtətəf</i>	<i>a-nə-gərtətəf</i>	to stumble

y-initial verbs with three following consonants lose the initial *yi*-syllable which is replaced by the nominal *a*- prefix and insert /a/ between all the consonants. The illustrations are under (a). y-initial verbs with two consonants take a long stressed *ee*- prefix and insert an /a/ between the two consonants. Examples are under (b) below.

(99) *y-initial verb: CCC and CC*

	verb	noun	gloss
a)	<i>yídran</i>	<i>a-dáran</i>	to return quickly
	<i>yíyfid</i>	<i>a-yáfad</i>	to be out of order
	<i>yíftəl</i>	<i>a-fáʔal</i>	to bother s.b.
b)	<i>yíjəf</i>	<i>ée-faf</i>	to swim
	<i>yízəð</i>	<i>ée-zəð</i>	to crush into powder
	<i>yínez</i>	<i>ée-naz</i>	to bend

/-ət/-final verbs take the nominal prefix /a-/ and drop the last syllable which is replaced by /u/. This last open syllable does not count for the stress distribution.

(100) */-ət/-final verbs*

verb	noun	gloss
<i>ʒ-ílliz-it</i>	<i>a-ʒ-ílliz-u</i>	to clean (kind of)
<i>búbbug-ut</i>	<i>a-búbbug-u</i>	to burn off (hair/feather)
<i>dələnf-ət</i>	<i>a-dələnf-u</i>	to be gooey
<i>fəlcəq-ət</i>	<i>a-fəlcəq-u</i>	to be flat

Another strategy for nominalization is presented below (3.2.4.3). The feminine prefix is the nominalizer in these cases.



## 3.2.4.2 Actor nominalization

Tadaksahak uses a prefix for actor nominalization. The default prefix is *ma-* with an allomorph *na-* for stems that contain a labial consonant (/b/, /f/ or /m/). In addition to the prefix many stems change the vowels into /a/ sounds.

Semantically the “actors” can be human, animate (animals) or an item that acts on humans.

Descriptive verb stems with the prefix designate beings with the characteristics of the verb. When action verbs are prefixed with this morpheme, the resulting expression designates a person that does the action or animate being that undergoes the action.

In the list below the first two items under (a) do not change the vowel of the verbal stem. (b) illustrates the change of the vowels to /a/ with the dropping of the final /-ət/. (c) gives an example with re-syllabification. (d) shows the pattern for yiCCvC stems. (e) illustrates yiCvC stems. Roots with only two consonants tend to have a long vowel in the stressed syllable. Finally (f) shows one of the few verbs of Tamasheq origin that have a long vowel.

## (101) Actor nominalization with /ma-/

	verb	noun	gloss verb	gloss noun
a)	<i>z-érgəz</i>	<i>a-ma-zérgəz</i>	to court	man courting women
	<i>hégəg</i>	<i>a-ma-hégəg</i>	to go on pilgrimage	pilgrim
	<i>zézaydər</i>	<i>a-ma-zazáydar</i>	to be patient	patient person
b)	<i>gərd-ət</i>	<i>a-má-gard-a</i>	to guard (house)	guard
	<i>wəl-ət</i>	<i>a-má-wal-a</i>	to be gourmet	gourmet
c)	<i>zérəg</i>	<i>a-má-zrag</i>	to go to well	person going to well
d)	<i>yíydər</i>	<i>a-má-ydar</i>	to betray	traitor
	<i>yíngəd</i>	<i>a-má-ŋgađ</i>	to be turbaned	newly turbaned youth

	verb	noun	gloss verb	gloss noun
	<i>yínʃi</i>	<i>a-má-nʃay</i>	to beg	beggar
	<i>yíldəd</i>	<i>a-má-ldad</i>	to milk into mouth	milk thief
	<i>yíxlək</i>	<i>a-má-xlak</i>	to be created	Creator
e)	<i>yíðəŋ</i>	<i>a-máa-ðan</i>	to graze	shepherd
	<i>yaŋéŋ</i>	<i>a-máa-ŋəŋ</i>	to be trained (camel)	trained camel
f)	<i>yazúurag</i>	<i>a-ma-záarug</i>	to be free (camel)	liberated camel

In one item one finds actor nominalization with a verb root of Songhay origin. The CVC root is reduplicated and then prefixes the regular actor morpheme: *záy* 'to steal', *a-ma-záy-zay* 'thief'. Another possible cognate of Songhay uses the 'long vowel strategy' for actor building: *ðar* 'to hurt' (cf. KCH /door/ 'hurt') may be the stem from which *a-mée-ðar* is derived 'a hurting particle (in the eye)'. The /e/ directly after the /m/ is irregular, though, and not found elsewhere in our corpus.

There are several animals on the above list. One more is the general term *a-múu-dər* 'animal, living being' that is derived from *yídár* 'to live'.

In the list below are examples with the same surface features (syllable structure and y-initial) as discussed on the list above, that take the *na-* prefix. These stems all contain a labial consonant.

(102) *Actor nominalization with na-*

	verb	noun	gloss verb	gloss noun
a)	<i>báləl</i>	<i>a-na-bálal</i>	to be at ease	who puts at ease
b)	<i>fírj-it</i>	<i>a-na-fáraf-a</i>	to be crazy	crazy person
c)	<i>gimár</i>	<i>a-ná-gmar</i>	to hunt	hunter
	<i>sé-mməgəl</i>	<i>a-na-s-mágal</i>	to treat (sickness)	healer
d)	<i>yibdán</i>	<i>a-ná-bdan</i>	to be paralyzed	paralyzed person

	verb	noun	gloss verb	gloss noun
	<i>yíytəf</i>	<i>a-ná-ytaf</i>	to ambush	street robber
	<i>yaxrám</i>	<i>a-ná-xram</i>	to refuse	badly trained camel
	<i>yíktəb</i>	<i>a-ná-ktib</i>	to write	writer
	<i>yíyləf</i>	<i>a-ná-ylif</i>	to be entrusted to	guardian
f)	<i>máazal</i>	<i>a-na-máazal</i>	to be sent	messenger

Another minor actor strategy is found. It is not nominalizing a verb but prefixes to a noun that designates an item that is the distinguishing feature for the agent. The prefix *aw-* ‘person’ in singular and *kəl* ‘people’ for plural is added to a noun. Examples are: ‘merchant’ *aw-maamála* (person-commerce) and ‘cultivator’ *áw-t-a-wágus-t* (person-F-SG-field-F.SG) with the plural *kəl maamála* and *kəl t-ə-wúgas* respectively. Semantically a strong indication of ‘different social belonging’ is conveyed. This strategy is also found in Tamasheq.

### 3.2.4.3 Nominalization with t-(a)...-t

Many terms carrying the *t-a...-t* marker are nouns derived from verbs. Depending on the meaning of the verb stem, the nouns may denote an entity with the characteristics of a descriptive verb, the instrument doing the verb, the result of doing the verb or an abstract noun.

Stative verbs describing qualities such as ‘flat, smooth, round’ can be changed into a noun which displays these qualities.

#### (103) Descriptive verbs

	verb	noun	gloss verb	gloss noun
	<i>fétiyləl</i>	<i>t-a-fatáylal-t</i>	be flat	flat plate
	<i>búluləy</i>	<i>t-a-bulúuleq-q</i>	to be round	round thing
	<i>láfəyət</i>	<i>t-a-láfayət-t</i>	to pound s.th. soft	pounded meat
	<i>kérəmbu</i>	<i>t-a-karámbaw-t</i>	to be bent	scorpion
	<i>qazór</i>	<i>t-a-qázor-t</i>	to have a	animal with bent

verb	noun	gloss verb	gloss noun
		bent back	back
<i>ɣafáy</i>	<i>t-á-ɣfi-t</i>	to have stripes	striped animal
<i>famlál</i>	<i>t-a-fímlal-t</i>	to be blond (kind of)	sand colored goat

A productive nominalization is found with colors. The result of the nominalization is the 'fact of being X'. The words listed under (a) have Tamasheq cognates. (b) is a Songhay cognate which takes both nominal forms with productive color nominalization and zero nominalization.

(104) *Color names*

	verb	fact of being	gloss verb
a)	<i>ɣagál</i>	<i>t-a-ɣagal-t</i>	to be fair colored
	<i>dabár</i>	<i>t-a-dábar-t</i>	to be grey
	<i>famlál</i>	<i>t-a-fámlal-t</i>	to be blond
	<i>cawál</i>	<i>t-a-cáwal-t</i>	to be clear
b)	<i>cíday</i>	<i>t-a-cíday-t ~ cíday</i>	to be red

The following nominalization patterns are not linked to specific semantics; it is rather the shape of the verb root that has some influence on the choice of the nominalization pattern. Abstract nouns as well as very concrete items can result from such nominalizations.

(105) *Other nominalization patterns*

- 1) CV(:)CVC > ta-CV':CVC-t  
 2) yVC<sub>1</sub>C<sub>2</sub>VC<sub>3</sub> > ta-C<sub>1</sub>V':C<sub>2</sub>VC<sub>3</sub>-t

Verbs listed under (a) and (b) below illustrate pattern (1) above. (c) and (d) show examples for the second pattern (2). The consonantal output for all of them looks very much the same. The vowel part of the change is much less predictable than the consonants. A pattern of /a/-eel-/a/ is quite frequent but other long vowels occur like /oo/ (*tahóorat* 'suitability') or /uul/ (*tasúutæft* 'spit').

(106) *Nominalization*

	verb	noun	gloss verb	gloss noun
a)	<i>báləl</i>	<i>t-a-báalul-t</i>	to be at ease	young tree, sp.
	<i>šəřəf</i>	<i>t-a-šóořef-t</i>	to pardon	pardon
	<i>sətəf</i>	<i>t-a-súutef-t</i>	to spit	spit
b)	<i>máazal</i>	<i>t-a-máazal-t</i>	to be sent	purpose
	<i>rúurud</i>	<i>t-a-ráarat-t</i>	to be in a hurry	hurrying
c)	<i>yířəş</i>	<i>t-a-féeraş-t</i>	to cut with one stroke	piece of cut material
	<i>yíyləf</i>	<i>t-a-yáalif-t</i> ~ <i>t-á-ylif-t</i>	to have confidence in	confidence
	<i>yíyrəs</i>	<i>t-a-yéerəs-t</i>	to chisel	well cut in rock
	<i>yílfəz</i>	<i>t-a-léefaş-t</i>	to be crushed	blister
	<i>yídkəl</i>	<i>t-a-déekəl-t</i>	to lift up	hoof (part of)

In addition, all verbs of the rare shape yVhVC are nominalized with this strategy. They add an extra syllable in order to form a word with three syllables. *yáhag* / *t-a-háag-it* 'to last / duration' *yahór* / *t-a-hóor-at* 'to be suitable / suitability'. (see also *aa-hát* / *t-a-hát-at* 'Zarma person m/f'). The other verbs of the shape y-VCVC use a different strategy for nominalization, i.e. long initial vowel *yířəf* / *ée-faf* 'to swim / swimming' (see 3.2.4.1.2).

3.2.4.3.1 *Instrument*

In a few verb stems, one finds a marker *sV-* which forms an instrument noun.

For these verb stems this marker produces the instrument with which the action of the verb is done. This procedure is not very productive. The examples under (a) show the verb root without the causative that are used as active verbs. (b) shows verbs only attested with the causative that can form the instrument.

(107) *Instruments*

	verb	noun	gloss verb	gloss noun
a)	<i>yíyrəs</i>	<i>t-a-sá-yris-t</i>	to chisel	chisel

	verb	noun	gloss verb	gloss noun
	<i>yíyǫl</i>	<i>t-a-sé-yǫl-t</i>	to lock	lock
	<i>yískəl</i>	<i>t-a-sé-ksəl-t</i>	to shovel up	shovel
	<i>yiwál</i>	<i>t-a-sé-wəl-t</i>	to be sharp (knife)	sharpeners
b)	<i>šé-škər</i>	<i>t-a-šé-škər-t</i>	to put on its base	holder for milkbowl
	<i>sé-sməd</i>	<i>t-a-sé-smət-t</i>	to be pointed	s.th. pointed

Note the inversion of the /s/ with /k/ in the stem of the noun derived from *yískəl*. The verbal form with the causative prefix shows the same behavior *s-éksəl*.

One stem was found that does not take the instrument morpheme but the feminine marker only and results in the instrument: *yíslǫf* > *t-á-slǫf-t* 'to carve > carving ax'. The /s/ in the root is possibly interpreted as the instrument marker.

### 3.2.5 Compounding

Tadaksahak almost entirely lacks the possibility of noun-noun compounding. This is very different from the situation in Mainstream Songhay, such as Gao Songhay, and resembles the situation in Tamasheq.

The only noun-noun compounds with simple juxtaposition are found with the noun *koy* 'owner, master' and the two lexemes 'camel' and 'sheep'.

(108) 'owner' compounds

<i>á-mṇəs - koy</i>	<i>i-múṇas - kon</i>	camel owner(s)
SG-camel-owner	PL-camel-owner.PL	camel rider(s)
<i>féejí - koy</i>	<i>féejí - kon</i>	sheep owner
sheep-owner	sheep-owner.PL	

The two words can be used as expressions for 'rich people'. Note that the plural of 'camel owner' has both parts of the compound pluralized whereas the plural of 'sheep owner' only has the 'owner' part marked as plural. A possible explanation could be that, in the latter case, since both terms are Songhay cognates, the compound behaves like

a Songhay noun phrase where only the phrase gets a plural marker, i.e. the last element. This corresponds to 'owner' in this example.

The same strategy is found in two clan names

- (109) *Clan names*
- |                       |  |
|-----------------------|--|
| <i>Abákot-kon</i>     | people belonging to the clan of Abakot     |
| old.skin-owner.PL     |  |
| <i>Ag-lítaymu-kon</i> | people belonging to the clan of Ag Litaymu |
| son.of-name-owner.PL  |  |

Both terms have irregular singulars without the 'owner' element present. They are *a-na-zbákot* (with the agent prefix and an irregular /z/) and *aw-lítaymu* ~ *ag-lítaymu* respectively.

A small number of compounds with simple juxtaposition occur that would seem to be noun-adjective/verb compounds. These frozen expressions designate kinship terms and animals. Similar expressions are found in Mainstream Songhay. In Tadaksahak, only one adjective is found in this kind of compound nouns, *beer-i* 'big', e.g.

- (110) *Noun-adjective compounds*
- |                     |                               |
|---------------------|-------------------------------|
| <i>nana béer-i</i>  | grandmother (Lit: big mother) |
| mother be.big-ADJZR |                               |
| <i>baba béer-i</i>  | grandfather (Lit: big father) |
| father be.big-ADJZR |                               |

The other forms correspond to actual verbs.

- (111) *Noun-verb compounds*
- |                   |                                    |
|-------------------|------------------------------------|
| <i>naná ceená</i> | maternal aunt (Lit: little mother) |
| mother be.small   |                                    |
| <i>naná fumbú</i> | step-mother (Lit: rotten mother)   |
| mother be.rotten  |                                    |
| <i>babá fumbú</i> | step-father (Lit: rotten father)   |
| father be.rotten  |                                    |
| <i>mó ceená</i>   | jackal (Lit: small eye)            |
| eye be.small      |                                    |

<i>míya kukú</i>	mosquito (Lit: long beak)
mouth be.long	

All these expressions form their plural by adding a plural morpheme only to the last element of the term, e.g., *naná ceen-án* for 'maternal aunts'.

A small number of idioms use the genitive /n/ as link between the two terms. The stress pattern of these expressions is the same as in regular genitival constructions. All terms except 'ox' are Songhay cognates. They form the plural by adding a plural morpheme only to the last element of the expression, e.g., *gánda n car-én* 'snakes' *hé n kun-én* 'sicknesses'. To what extent these idiomatic expressions can be identified as real compounds is open to discussion.

(112) *Genitive construction compounds*

<i>hé n kuná</i>	sickness
thing GEN find.VN	(Lit: finding of a thing)
<i>keení n guná</i>	dream
sleep GEN see.VN	(Lit: sleep's seeing)
<i>zéemi nn áwdəf</i>	praying mantis
blacksmith GEN ox	(Lit: ox of the blacksmith)
<i>gánda n caráy</i>	snake, sp.
ground GEN friend	(Lit: friend of the ground)
<i>gánda n karfú</i>	grass snake
ground GEN rope	(Lit: rope of the ground)
<i>tárra nn ízzay</i>	lion
bush GEN son	(Lit: son of the bush)

Some of these expressions are clearly euphemisms for animals that should not be called by their names.

A restricted number of nouns take a preposed element 'bad', which forms a kind of compound word.

The bound element precedes the noun it goes with. Its stress pattern depends on the stress of the following noun. When the noun has stress on the penultimate syllable, *agar* remains unstressed. When it has final stress, the element *agar* is stressed on its second syllable.



*agar* 'bad' doubtlessly has a Berber background, even though it does not seem to exist in Tuareg. The morphosyntactic behavior of Tadasahak *agar* is remarkably similar to that of /erk/ 'bad' in Tamasheq.

(113) *Nouns found with agar*

<i>agár borá</i>	bad person
<i>agár farká</i>	bad donkey
<i>agar léelaw</i>	slander
<i>agar a-hándag</i>	difficult/dangerous place
<i>agar káykay</i>	morally bad behavior
<i>agar íi-m-an</i>	dizzy spell

*agar* 'bad' does not agree in number or gender with the noun it modifies. This is shown by the last example, *agar íi-m-an* which contains the plural noun *íi-m-an* 'life, soul', and by forms such as *agar t-é-mgad-an* 'bad girls' with the feminine plural noun *t-é-mgad-an* 'girls'.

It should be noted that the regular expression for 'bad' is by means of the adjective *yibrár+an* 'be bad+ADJZR' and the place in the noun phrase is after the noun.

(114) *wá (ə)n-sə-d(a) ayáy he yibráar-an*  
 IMP 2s=IMPERF.NEG-do 1s.IO thing be.bad-ADJZR  
 don't do me any harm!

### 3.2.6 Personal pronouns

In the section about the verbal word it was shown that subjects are always referred to in a clitic which appears before the verb stem.

Besides the subject clitics there is a series of pronouns that behave differently from the clitics and behave more like noun phrases from a syntactic point of view. They cannot be possessed but they may be followed by a certain demonstrative construction, by discourse-functional morphemes, and/or by a postposition.

#### 3.2.6.1 Person and number categories

The speaker (1s), the addressee (2s) and the non-participant (3s) form the paradigm in the singular. There is no gender distinction. The

3s pronoun stands for female and male, animate and inanimate referents alike.

The plural has the same three categories 1p, 2p and 3p. There is no distinction between inclusive or exclusive in the first person plural.

### 3.2.6.2 Forms

The list below gives the different shapes of pronouns in their functions.

What I call 'independent subject' is a pronoun pre-posed to the verbal word which occurs without a focalization morpheme. In this position it is labeled 1s.EMP ('emphatic') in order to show its status outside the inflected verbal word, e.g. *ayáy aya-ggun(a)=á*. (1s.EMP 1s=see=3s) 'I, I saw him.'

The dependent object pronoun form has a clitic in the 3<sup>rd</sup> person that attaches either to the verb (see 3.1.4.3) or to the postposition (see below 3.2.6.3).

The independent object form shows a difference in the 3<sup>rd</sup> person where a longer form is found that stands independently and has the same properties as the other pronouns, i.e. it may take modifiers. These pronouns will be glossed with EMP 'emphatic'.

#### (115) Shapes of personal pronouns

	dependent subject	independent subject	dependent object	independent object
1s	<i>ay(a)=</i>	<i>ayáy</i>	<i>ayáy</i>	<i>ayáy</i>
2s	<i>ní-/ən=</i>	<i>nín</i>	<i>nín</i>	<i>nín</i>
3s	<i>a=</i>	<i>ánga</i>	<i>=a</i>	<i>ánga</i>
1p	<i>ar(ə)=</i>	<i>áari</i>	<i>áari</i>	<i>áari</i>
2p	<i>andə=</i>	<i>ándi</i>	<i>ándi</i>	<i>ándi</i>
3p	<i>i=</i>	<i>íngi</i>	<i>=i</i>	<i>íngi</i>

### 3.2.6.3 Pronouns as postpositional complements

The pronouns listed in the preceding table may be combined with all postpositions (for *n* 'genitive' and *wani* / *wan-en* 'of', see below) and the preposition *ənda* 'with, and'.

The dependent 3<sup>rd</sup> person pronouns cliticize to following postpositions. The clitic normally carries the stress which results in a V:CV word where the initial open syllable is lengthened, e.g. *íi-se* (3p=DAT) 'for them'.

When several pronominalized complements follow each other in a clause, they are separated from each other by a specialized morpheme that is described as the 'pronoun separator' below 3.2.7.11.2.

### 3.2.6.4 Possessive pronouns

In Mainstream Songhay the regular pronouns also serve as possessors (Heath 1999b:80). This is not the case in Tadaksahak where possessors are marked by means of the subject clitic series together with the genitive morpheme.

In the list below the subject clitics are given in the first row to show the similarity in shape with the possessive pronouns, which are given in the second row. The third row shows that the possessor form ('mine', 'yours') uses the same series of dependent pronouns together with the particle *wani* / *wan-en*. Note that the same phonological rules are in force as for the clitics preceding an inflected verb, i.e. the first persons use the mono- or disyllabic allomorph depending on the shape of the following element. The 3s clitic has an allomorph *ay=* (pronunciation [ɛj]) when joined with the markers for possession, i.e. *ay=n* 'his/her/its' and *ay=wani* 'his/hers'

#### (116) Possessive pronouns

	subject clitic	possessive pronoun 1	possessive pronoun 2
1s	<i>aya=/ay=</i>	<i>ayá=n</i>	<i>ay=wáni</i>
2s	<i>ni=</i>	<i>ní=n</i>	<i>ni=wáni</i>
3s	<i>a=</i>	<i>áy=n</i>	<i>ay=wáni</i>
1p	<i>arə=/ar=</i>	<i>árə=n</i>	<i>ar=wáni</i>
2p	<i>andə=</i>	<i>ándə=n</i>	<i>andə=wáni</i>
3p	<i>i=</i>	<i>í=n</i>	<i>i=wáni</i>

The 1<sup>st</sup> person pronouns of the series 1 have an alternative form when the following noun has an initial vowel. In such cases the

second vowel in the pronoun is dropped, e.g. *ay-n ayáanib* ‘my pencil’ or *ar-n idúulin* ‘our in-laws’ (see more examples under 2.4.2.4).

### 3.2.7 Adpositions

Tadaksahak has several postpositions and a few prepositions. The list below presents the translation equivalents and a general indication of the function.

(117)	<i>Adpositions</i>		
	form	gloss	function
	<i>se</i>	for	dative
	<i>ka</i>	in, on, to, from	locative
	<i>be</i>	on, over	locative
	<i>daw</i>	at (‘chez’)	locative
	<i>kámba</i>	towards	locative
	<i>n</i>	of	possessive
	<i>wáni / wán-en</i>	of	character of
	<i>enda</i>	and, with, towards; if	instrumental; comitative; locative; conjoining NPs; conditional
	<i>wala</i>	without; or	lack of item; disjunction
	<i>ínzin</i>	like	comparison

For some of these postpositions we can suggest origins:

*se*: same as in Mainstream Songhay.

*ka*: The equivalent in Songhay is /ra~la/ and does not help for an origin. But KS has a noun /kuna/ ‘interior’. This word is still being used as a locative postposition in KCH (Heath 1999a:354) and in Tasawaq, another Northern Songhay language, e.g. /húgù kúná/ ‘in the house’ (Kossmann p.c.).

- be:* has a nominal relative in *béena* 'top' that can be used to express 'on something' as in *húgu n béena* 'top of the house'
- daw:* Songhay of Gao has /dool/ 'place' (and a postposition with the same shape) which could be at its origin. A frequent use of the postposition is 'at X's place' (French 'chez'). It can also mean 'close to', 'next to' a present physical entity (person, family, house). Tamasheq has a preposition /daw/ 'under' that is closer in shape but semantically points in a different direction and seems therefore unlikely to be the origin.
- kámba:* also means 'hand, arm' and so indicates a direction which is the meaning of the postposition.
- n:* genitive marker with the same form as in Tamasheq but syntactically used in a different way.
- wani:* is a possessive postposition in Mainstream Songhay. In Tadaksahak the use is somewhat different since it occurs for marked possessor relationships and characteristics.
- ənda:* is found in Mainstream Songhay where it serves for most of the functions observed in Tadaksahak. An additional feature is its locative use with motion verbs.
- wala:* this preposition is originally from Arabic but is also used in Tamasheq and Songhay.
- ínzin:* a cognate in Tamasheq is /zun ~ zund/ used the same way.

### 3.2.7.1 Dative *se*

This postposition is used for indirect objects, i.e. the addressee with verbs like *ci* 'say' and *har* 'tell (sth.)', and the beneficiary with verbs like *na* 'give' and *f-úuwa* 'send'.

- (118) *a-nn(á) áy=n t-ə-séssira [alfáqi se].*  
 3s=give 3s=GEN F-PL-key teacher DAT  
 she gave its (trunk) keys to the teacher.

With pronouns, the dative postposition may be absent (see 3.2.7.11.2.1) It is obligatory with third person pronouns.

- (119) *a=nn(a) í=se t-ée-laq-q*  
 3s=give 3p=DAT F-SG-knife-F.SG  
 s/he gave them a knife.

Certain causative verbs mark the causee with the dative.

- (120) *a=ssé-ss-əŋɣəl-an [táwway se]*  
 3s=CAUS-CAUS-pour.BND-ALL servant DAT  
*báarar ən zíibi.*  
 child GEN dirt  
 she made the servant remove the child's dirt.

The postposition is pronounced [sa] when followed by another pronoun beginning with /a/. For a discussion about *n* 'pronoun separator' and further examples, see 3.2.7.11.2.

- (121) *a=nn(á) [ayáysa] n a*  
 3s=give 3s DAT SEP 3s  
 s/he gave it to me.

Second person singular is irregular: Instead of expected \**ní=se*, it appears as *ana* 2s.DAT. The form may be related to the irregular form used in Mainstream Songhay where 2s.DAT is /mane ~ mana/. In Tadaksahak most pronouns begin with a vowel and so possibly the initial consonant was dropped.

- (122) *aya=hár ana ay=n émmək.*  
 1s=tell 2s.DAT 3s=GEN manner  
 I told you how s/he/it is.

This pronoun behaves quite differently from the rest of the series. Further treatment of this topic is found in 3.2.7.11.2.1.1.

### 3.2.7.2 Locative and temporal/ka

The basic reading of this locative postposition *ka* LOC is 'in'. It is a purely topological postposition, insensitive to questions of location vs. direction. That is to say, it can be translated both as locative 'in, at, on' and as directional 'into, from', etc. (cf. also Heath 1999b:136).

- (123) a) *a=b-gorá [húguka]*  
 3s=IMPERF-sit tent LOC  
 S/he sits in the tent.

- b) *a=b-gor(á)*      *[[a-je ráw    ən    a-ss-ələm]*      *ka]...*  
 3s-IMPERF-sit      SG-river      GEN      SG-INST-outside      LOC  
 She (fish woman) was sitting at the riverside...
- c) *a=f-keení*      *[gánda    ka]*  
 3s-IMPERF-lay      ground      LOC  
 It is laying on the ground.
- d) *[ayá=n    baaf]*      *a=yyéd*      *[banɟu    ká].*  
 1s=GEN      water.bag      3s=return      well      LOC  
 My water bag fell in the well.
- e) *a=b-nín*      *[t-ée-yar-t*      *ka]*  
 3s-IMPERF-drink      F-SG-pot-F.SG      LOC  
 S/he drinks from/in the pot.
- f) *[[man né]*      *k(a)] aya=ttánɟa-kat=i?*  
 where place      LOC      1s=push-VEN=3p  
 From where did I push them (camels) to here?

The examples below have a temporal as well as a locational incidence of *ka*.

- (124) a) *[zayri    ayo    ka]*      *ni=ssá-bdəd=i*  
 day      DET      LOC      2s=CAUS-stop.BND=3p  
*[[ayá=n    mo]    ka]...*  
 1s=GEN      eye      LOC  
 (on) the day you place them in front of me...
- b) *[ánɟa    ka]*      *ni=b-mún*      *[a=k(a)]*      *ary-én...*  
 3s.EMP      LOC      2s=IMPERF-pour      3s=LOC      water-PL  
 then you pour water in it...

In this last example *ánɟa* 3s.EMP refers to the whole preceding clause which is of temporal nature: 'The moment when you finish with the meal in the plate'.

### 3.2.7.3 Locative be 'on'

The postposition *be* means basically 'on' but also 'above' and in a more abstract way 'about'. Similar to *ka*, it can be used both in locative and in directional contexts. Expressions like 'to descend down on', 'jump down on', 'be on' use this postposition.

- (125) a) *a=hóoyay*      *[áa-be].*  
 3s=spend.day      3s=on  
 he spent the day there (at the well).

- b) *aya-kkáw* [a-b(e)] [ay=n í-səlsa].  
 1s=take.away 3s=on 3s=GEN PL-clothes  
 I took his clothes off him. (= from on him)
- c) *ni-b-guná hó f-túw-ənn(a)*  
 2s=IMPERF-see thing.DET IMPERF-PASS-say.BND  
*[i-dáksahak be]?*  
 PL-ethnic.name on  
 do you see what is said about the Idaksahak?

This postposition can also be used in a causal sense ‘because of, on account of’ (see 4.8.2.2).

### 3.2.7.4 Locative *daw* ‘at somebody’s place’ (*chez*)

The postposition *daw* can frequently be rendered by the French word ‘chez’ i.e., ‘at somebody’s place’ but ‘being physically close to’ or ‘next to’ can also be possible. The location is mostly a person or a place where people normally are, e.g. a house.

- (126) a) *a-ttén [ayáy daw]*  
 3s=arrive 1s chez  
 he arrived at my (place).
- b) *a-f-káy [[áy=n nana] daw]*  
 3s=IMPERF-stand 3s=GEN mother chez  
 it (child) stands next to his/her mother.

### 3.2.7.5 Directional *kámba* ‘towards’

Another postposition rarely used is directional *kámba* ‘towards’. Example:

- (127) *kéed(i) [a-giilal kámba]*  
 mount SG-rear towards  
 get up towards behind!

See also 3.2.7.8 for a similar meaning of *ənda* ‘towards’.

### 3.2.7.6 Genitive *n*

Tadaksahak has a possessor – possessed order. The genitive postposition *n* provides the link between the two nouns. A similar marker is found in Tamasheq, but Tadaksahak has the reverse order of constituents.



- (128) [Mússa    ŋ]    húgu  
           name        GEN   house  
           Mussa's house

The form can take an epenthetic schwa when the preceding noun ends with a consonant.

- (129) [báarar    əŋ]    hánji  
           child         GEN   dog  
           (the) child's dog

A similar structure is used with pronouns (see 3.2.6.4).

The morpheme assimilates to the place of articulation of a following consonant. The illustrations are in the phonology part (2.4.1.1).

An interesting observation is the fact that speakers usually repeat the genitive particle together with the possessed item when they retake this construction partially, e.g. *Mussa ..... ən húgu* 'Mussa, eem....(hi)s house'.

### 3.2.7.7 Possessive wáni / wán-en 'of'

This element, which is the only overt possession marker in Mainstream Songhay, is not very frequent in Tadaksahak. It only rarely marks a true possessive relationship. A more regular use of this form is to express 'character of' or 'of material of'.

The head precedes the modifier and the particle follows the modifier.

- (130) *t-a-mánkə-t*    [*háamu wáni*]  
           F-SG-piece-F.SG   meat        of  
           piece of meat

This particle agrees in number with the head.

- (131) *í-səlsa*    [*úuray wán-en*]  
           PL-clothe    gold   of-PL  
           clothes (made) of gold

Only in conjunction with a pronominal clitic does this particle express 'ownership' as in 'mine' or 'yours', (3.2.6.4) but there is also a use where the whole construction modifying a noun means '(my) kind of' including the notion of 'character'.

### 3.2.7.8 Preposition *enda* ‘with’, ‘in the direction of’

This element has many different functions. Its syntax together with pronouns merits special attention (3.2.7.11.2.2). Phrases with *enda* + noun have instrumental or comitative meaning. With transitive verbs the instrumental reading is normal (‘he hit it with a hammer.’), with a certain class of (intransitive) verbs the comitative meaning is normal (‘he accompanied him’). See more examples in 4.3.6.

- (132) a) *a=bb-áfyəl*      [*enda*      *t-á-ssəd*]  
 3s=IMPERF-work    with                    F-SG-ax  
 he works with an ax.
- b) *a=b-háŋ(a)*                    [*end(a)*      *[áy=n*      *caráy]]*  
 3s=IMPERF-accompany    with                    3s=GEN      friend  
 he accompanies his friend.

One particular use of *enda* ‘and, with’ is as a locational expression. Some movement verbs take this preposition to indicate ‘close by’, ‘in the direction of’.

- (133) *a=zzúru*    [*enda*      *húgu]*      *fo...*  
 3p=run            with            house            IND  
 he (snake) run close by a house...

The list below gives more verbs that use *enda* ‘in the direction of’ to encode a location. The first verb on the list below does not occur without the preposition.

- (134) *Verbs with enda ‘in the direction of’*
- | verb        | gloss        | syntax              | gloss                            |
|-------------|--------------|---------------------|----------------------------------|
|             |              | <i>yáray enda X</i> | be in the direction of           |
| <i>bóy</i>  | move camp    | <i>bóy enda X</i>   | move in the direction of         |
| <i>yíci</i> | pass         | <i>yíci enda X</i>  | pass in the direction of         |
| <i>yídu</i> | be assembled | <i>yídu enda X</i>  | be assembled in the direction of |

3.2.7.9 Preposition *wala* 'without'

*wala* has many functions in the language (4.8.1.2 'or'; 4.6.4 'not even'). When meaning 'without', it precedes the noun that is negated. The second example below has *wala* in both functions, 'without' and 'or'.

- (135) a) *əs-kahar aya-b-d(á) á-drəs wala haamú...*  
 maybe-when 1s-IMPERF-make SG-sauce without meat  
 when I make a sauce without meat...
- b) *bora jiji-kat ay=n á-mḡəs wala*  
 person load-VEN 3s-GEN SG-camel without  
*t-a-xáawi-t wal(a) i-sətfar...*  
 F-SG-saddle.kind-F.SG or PL-cover  
 somebody who loads his camel without saddle or  
 (without) padding...

There is an idiomatic use of the construction 'without + child/one' to include absolutely all (persons). In the following example also the word *káamil* 'all' is intensified to express 'all included'.

- (136) a) *i-yyídu-kat kamululáhi wala báarar*  
 3-assemble-VEN absolutly.all without child  
 they were absolutely all assembled.
- b) *a=gór i-mənóokal-an i-f-túwa-s-úku*  
 3s-must PL-ruler-PL 3p-IMPERF-PASS-CAUS-call.BND  
*wal(a) á-ffo.*  
 without SG-one  
 all the chiefs without exception had to be summoned.
- c) *s(a) i=ggár=i i=kkós wal(a)=á.*  
 COMP 3p-find-3p 3p=cut without-3s  
 it was found that they were cut without (exception).

The last example has no noun following *wala*. The meaning is nevertheless the same as the other examples show. The stress on the final syllable of *walá* suggests that some morpheme is added there, probably a 3s clitic.

3.2.7.10 Preposition *inzín* 'like'

*inzín* behaves like a preposition at times but can also join sentences. Find more examples and discussion under (4.7.4.6).

(137) *inʒín t-a-zooníya-t ən cí?*  
 like F-SG-bird.sp-F.SG GEN kind  
 Like a kind of small bird?

### 3.2.7.11 *Pronominalized elements and the verb*

#### 3.2.7.11.1 *Pronominalized NPs*

Subject pronouns precede the verb. Other pronominal elements follow the verb (unless in focus). There are rules for the succession of pronouns after the verb and the presence of the dative postposition.

- 1) When other pronominalized elements are present, the pronominalized direct object is the last element (as illustrated in (138) below)
- 2) Most pronouns indicating the indirect (dative) object are marked by the dative postposition *se*. With first person pronouns it is absent when the pronoun is not followed by another pronoun, but present otherwise (see 3.2.7.11.2.1 below)
- 3) When a locative and a dative pronoun are present, the dative precedes the locative pronoun

#### 3.2.7.11.2 *Pronoun separator n*

Tadaksahak uses a particle *n* to separate pronouns from each other in the post-verbal position. The insertion of this consonant allows for the pronunciation of vowels that would normally be deleted because of regular vowel coalescence rules.

In Tadaksahak there is no evidence that this particle is more than the consonant /n/. In Songhay of Gao there is a particle /na/ 'transitive' that marks direct objects with verbs that use preverbal pronouns (Heath 1999b:212).

The use of the pronoun separator *n* is illustrated below in (c); The sentence (b) only has one pronominal element; sentence (a) presents the full sentence without pronominalization.

(138) a) *a=kkuná ceedí húgu ka.*  
 3s=find spoon house LOC  
 s/he found a spoon in the house.

- b) *a=kkun(á)=a húgu ka.*  
 3s-find=3s house LOC  
 s/he found it in the house.
- c) *a=kkun(á) áa-ka n a*  
 3s-find 3s=LOC SEP 3s  
 s/he found it in it.

The pronoun separator does not only separate direct object pronouns from other pronouns, it also separates postpositional pronouns from each other. The following clause illustrates this.

- (139) *a=kkáw ayáy sa n áa-ka tónd-en.*  
 3s-take 1s DAT SEP 3s=LOC pebble-PL  
 She took pebbles out of it (rice) for me.

The following example has the maximal amount of pronouns possible in one single clause.

- (140) *Koy ni=m-d(á) áa-se n áa-ka n a!*  
 leave 2s-SUBJ-do 3s=DAT SEP 3s=LOC SEP 3s  
 Go put it in it for him.

*enda* 'with' can be preceded by the pronoun separator.

- (141) *Lém-kat ayáy sa n á=(ə)nd(a) i-fign-an*  
 twine-VEN 1s DAT SEP 3s-with PL-thread-PL  
 Twine me thread with it (earth).

Read more about *enda* and its behaviour with pronouns under 3.2.7.11.2.2.

### 3.2.7.11.2.1 Pronouns with dative se

Most pronouns indicating the indirect (dative) object are marked by the dative postposition *se*. With first person pronouns it is absent when the pronoun is not followed by another pronoun. When another pronominal is present, *ayáy* '1s' and *ári* '1p', used as indirect objects, are obligatorily followed by the postposition *se* DAT. Consider the examples:

- (142) a) *a=nn(a) ayáy t-ée-laq-q*  
 3s-give 1s F-SG-knife-F.SG  
 s/he gave me a knife.

- b) *a=nn(a) ayáy sa n a*  
 3s-give 1s DAT SEP 3s  
 s/he gave it to me.
- c) *a=yyíddər áari báarar*  
 3s-hold 1p child  
 s/he held the child for us.
- d) *a=yyíddər áari sa n a.*  
 3s-hold 1p DAT SEP 3s  
 s/he held it for us.

The third person pronouns and 2p *andi* are always followed by the postposition. For the 2s pronoun see below.

- (143) a) *aya-dd(á) ándi s(e) a-sáafu...*  
 1s-do 2p DAT SG-greeting  
 I greeted you(pl)...
- b) *aya-dd(á) áa-s(e) a-sáafu...*  
 1s-do 3s-DAT SG-greeting  
 I greeted him/her...
- c) *aya-dd(á) íi-s(e) a-sáafu...*  
 1s-do 3p-DAT SG-greeting  
 I greeted them...

### 3.2.7.11.2.1.1 Second person with se DAT

The second person singular dative pronoun appears as *ana* 'for you (sg)'.

- (144) a) *aya=nn(á) ana t-ée-laq-q*  
 1sgive 2s.DAT F.SG-knife-F.SG  
 I gave you a knife.
- b) *a=tə-yilkám ana*  
 3s-FUT-follow 2s.DAT  
 He will follow you.

The syntax of this pronoun is not regular, as it has a different position in the clause from the other DAT pronouns, following the direct object pronoun rather than preceding it, e.g.

- (145) *ay=tə-tang(á)=í (a)na*  
 1s=FUT-push.ahead=3p 2s.DAT  
 I will push them ahead for you.

When occurring with a pronominalized locative phrase, *ana* 2s.DAT comes between the pronoun and the locative postposition. The following examples come from a dialog at the market.

(146) a) *aya-şşúr í=(a)na-be t-ə-méedi.*  
 1s=put.on 3p=2s.DAT-LOC F-SG-hundred  
 I add you 500 Francs<sup>1</sup> CFA on them.

b) *aya=b-n(á) í=(a)na-ka i-jím-an hiŋká.*  
 1s=IMPERF-give 3p=2s.DAT-LOC PL-thousand-PL two  
 I give you 10.000 Francs CFA for them.

In combination with the first person pronoun there is yet a different strategy used. The regular 2s pronoun *nín* appears together with the DAT marker. The direct object follows the verb immediately, as in the examples above with *ana*.

(147) a) *a=nná nín ayáy se*  
 3s=give 2s 1s DAT  
 He gave you to me.

b) *a=nn(a) ayáy nín se*  
 3s=give 1s 2s DAT  
 He gave me to you.

### 3.2.7.11.2.2 Pronouns with instrumental-comitative *ənda*

The preposition *ənda* 'with' does not behave as expected in all environments. When the PP with *ənda* is the only pronominalized element, *ənda* is preposed to the pronoun, e.g.

(148) a) *a=bb-éŷəl [ənda tásşəd].*  
 3s=IMPERF-work with ax  
 He works with an ax.

b) *a=bb-éŷəl [ənd(a)-á].*  
 3s=IMPERF-work with=3s  
 He works with it.

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<sup>1</sup> The monetary system is based on 'one coin' that is worth 5 Francs CFA. All numbers need therefore to be multiplied by 5 to indicate their monetary value, e.g., 100 units of 5 Francs CFA equal 500 Francs CFA.

When the instrument is pronominalized in sentences that also contain a direct object, *ənda* is postposed to its pronominal complement and now functions as a postposition.

- (149) a) *a=b-hímay áy=n banjú [(ə)nda ary-én].*  
 3s=IMPERF-wash 3s=GEN head with water-PL  
 She washes her head with water.
- b) *a=b-hímay [í=(ə)nda] banjú.*  
 3s=IMPERF-wash 3p=with head  
 She washes the head with it.
- c) *ay-tə-şún [nín ənd(a)] [aya=n t-a-báyor-t].*  
 1s=FUT-share 2s with 1s=GEN F-SG-wealth-F.SG  
 I will share my wealth with you.

The same behavior is found when *ənda* is used as a comitative.

- (150) *a=b-déeraw í=(ə)nda baabá.*  
 3s=IMPERF-have.in.common 3p=with father  
 He has the same father as they have.

### 3.2.7.11.2.3 Pronouns with locative PPs

The locative postpositions *ka* 'in, from, among, to, at', *be* 'on' and *daw* 'at (somebody's place)' are always present when the accompanying noun is pronominalized. Find a selection in the examples below.

- (151) a) *a-şşúggú ayáy ka*  
 3s=look.down 1s LOC  
 She looked down on me.
- b) *...ayó şí nín ka*  
 DET not.be 2s LOC  
 ...that you have lost.
- c) *t-á-ηgud a-f-təməy-təməy áa-ka*  
 F-SG-girl 3s=IMPERF-blink-DUP 3s=LOC  
 The girl blinked at him.
- d) *í-şş-əηkər áari be t-áa-zice*  
 3p=CAUS-get.up.BND 1p LOC F-SG-storm  
 They raised a storm on us.
- e) *aya-ttén ándi daw*  
 1s=arrive 2p LOC  
 I arrived at your(pl) place.



- f) *a-múnsu ayo n cijín a-qqóq-an í-be*  
 SG-meal DET GEN last.night 3s=be.dry-ALL 1p=LOC  
 The meal of the previous night has dried on it.

### 3.2.8 Adjectives

Tadaksahak has a category of adjectives which are different from verbs and nouns on the basis of their morphological properties. All adjectives have a corresponding verb, and the great majority of adjectives is morphologically derived from the verb stem. There are three different strategies to form adjectives depending on shape and etymology.

The first strategy concerns verbs of Songhay stock. A very different morphology is used with verbs of Tamasheq origin. A third strategy allows Songhay cognates to be inserted into the morphological pattern otherwise used in deriving adjectives from Tamasheq verbs.

#### 3.2.8.1 'Songhay' derivation: *-i/-u* and zero-derivation

Some monosyllabic Songhay-based verbs form the corresponding adjective by adding a stressed high vowel. A low /a/ vowel in the stem seems to attract the *-u* suffix and a mid vowel the *-i* suffix. This marker is different from the ones found in Songhay of Timbuktu and Songhay of Gao, which add /o/ and /a/ respectively.

Since the suffix is a single vowel, a long vowel in the stem reappears. The examples below illustrate high frequency adjectives with suffix *-i* under (a) and suffix *-u* under (b)

#### (152) Songhay derivation

	verb	gloss	adjective
a)	<i>zen</i>	to be old	<i>zeen-í</i>
	<i>ber</i>	to be big	<i>beer-í</i>
	<i>qoq</i>	to be dry	<i>qooɣ-í</i>
b)	<i>ɲas</i>	to be fat	<i>ɲaas-ú</i>
	<i>baq</i>	to be broken	<i>baaq-ú</i>

Three Songhay cognates use no segmental derivational morpheme to serve as noun modifier, viz. the basic color terms 'white', 'black' and 'red/brown'.

(153) *No morpheme*

verb	gloss	adjective
<i>bíibi</i>	to be black	<i>bíibi</i>
<i>kóoray</i>	to be white	<i>kóoray</i>
<i>cidáy</i>	to be red	<i>cidáy</i>

3.2.8.2 *Tamasheq cognates: derivation with /-an/*

Di-syllabic stative verbs of Tamasheq origin take a suffix *-an* ADJZR to mark a modifier in a noun phrase.

In Tamasheq the masculine singular form of the (stative) “participle”-suffix is /-ǎn/. In a clause like ‘black man’ the verbal stem ‘to be black’ is inflected with this participial suffix, e.g. /ǎ-háləs kǎwǎl-ǎn/ (SG-man be.black-/ǎn/) ‘black man’ (cf. Heath 2006:483). This suggests that the suffix has come into the language together with its use on Tamasheq cognates.

The table below illustrates verbs taking the *-an* suffix. They are all Tamasheq cognates. When the vowel-initial suffix opens a syllable with a stressed vowel, this vowel is realized long in the adjectivized form. Under (b) the adjectival forms are listed with the realizations of this feature. (c) illustrates a V-final root that loses this vowel. The stress of the last syllable is carried over to the suffix. (d) illustrates the way the stem amalgamates with the suffix and is realized [ɛŋ]. Finally (e) gives the only example where the final *-ay* syllable is not amalgamated but opens up and exposes a long final /a/.

(154) *Tamasheq cognates*

	verb	gloss	adjective
a)	<i>dalát</i>	to be blue/green	<i>dálat-an</i>
	<i>kádak</i>	to be brown (kind of)	<i>kádak-an</i>
	<i>yaráy</i>	to be yellow	<i>yáray-an</i>
b)	<i>yibrár</i>	to be bad	<i>yibráar-an</i>
	<i>yimád</i>	to be complete	<i>yimáad-an</i>
	<i>yizzár</i>	to be ahead	<i>yizzáar-an</i>
	<i>dagág</i>	to be slow	<i>dagáag-an</i>

	verb	gloss	adjective
	<i>zadíg</i>	to be clean	<i>zadíg-an</i>
c)	<i>yisñá</i>	to be strong	<i>yisñ-án</i>
d)	<i>daráy</i>	to be brown (kind of)	<i>dár-en</i>
	<i>kazáy</i>	to be white (kind of)	<i>káz-en</i>
	<i>zéráy</i>	to pass after	<i>zér-en</i>
e)	<i>yaynáy</i>	to be new	<i>yaynáay-an</i>

Four disyllabic Songhay cognates in our corpus also take this suffix as the only possible derivational suffix.

(155) *Disyllabic Songhay cognates with -an*

	verb	gloss	adjective
	<i>kukú</i>	to be long	<i>kuk-án</i>
	<i>ceená</i>	to be small/young/few	<i>ceen-án</i>
	<i>babó</i>	to be numerous	<i>babó-(a)n</i>
	<i>zíibit</i>	to be dirty	<i>zíibit-an</i>

3.2.8.3 *Reduplication + -an*

The great majority of monosyllabic verb roots of Songhay origin use a reduplication strategy. The verb root is duplicated and the morpheme *-an* is suffixed.

The reduplication sometimes entails phonological changes, such as /n/-assimilation. A special instance is /r/-assimilation, which only occurs with the adjectival derivation.

In the list below are adjectives that occur exclusively with this strategy. (a) illustrates the regular case of CVC shaped stems reduplicated with the phonological rules of assimilation. (b) shows CV pattern reduplication following the respective rules for final Vs: /a/ is dropped and /y/ is inserted after /i/.

(156) *Reduplication + /-an/*

	verb	gloss	reduplication
a)	<i>ban</i>	to be soft	<i>bam-ban-án</i>

	verb	gloss	reduplication
	<i>bun</i>	to be dead	<i>bum-bun-án</i>
	<i>dut</i>	to be pounded	<i>dut-tut-án</i>
	<i>fay</i>	to be separated	<i>fay-fay-án</i>
	<i>fik</i>	to be buried	<i>fik-fik-án</i>
	<i>kan</i>	to be sweet	<i>kaŋ-kan-án</i>
	<i>kos</i>	to be cut	<i>kos-kos-án</i>
	<i>ɬay</i>	to be wet	<i>ɬay-ɬay-án</i>
	<i>waʂ</i>	to be boiling	<i>waʂ-waʂ-án</i>
	<i>boy</i>	to move camp	<i>boy-boy-án</i>
	<i>hay</i>	to give birth	<i>hay-hay-án</i>
b)	<i>wa</i>	to be healed	<i>wa-w(a)-án</i>
	<i>ʃi</i>	to be lost	<i>ʃi-ʃi-án</i>

#### 3.2.8.4 Irregular adjectives

Quite a number of frequently used adjectives appear in several forms. They are all Songhay cognates. It should be noted that this variation is found in real language use, and not due to the medium of elicitation. The forms listed without brackets below have been extracted from our text corpus, those in brackets have only been attested in elicitation.

Some reduplicated roots can take the *-i* suffix and not only the expected *-an*.

Roots under (a) have two or three forms. The examples (b) to (e) show forms which are irregular for one or another reason (b) has assimilation of the final /r/ of the first syllable to the /m/ of the second and adds *-i* despite reduplication. Elicitation also provided the expected *-an* ending; (c) shows partial reduplication but both stems do not take the same suffix. 'hot' takes *-i* and 'bitter' takes the *-an* suffix, elicitation also provided the other possibility. 'fall' under (d) does not duplicate yet takes *-an*. (e) 'good' reduplicates only partially.

(157) *Songhay cognates with irregular derivation*

	verb	gloss	simple root	redup. root
a)	<i>ber</i>	to be big	<i>beer-í</i>	<i>bə-béer-i</i> <i>bəb-bər-án</i>
	<i>qoq</i>	to be dry	<i>qooɣ-í</i> <i>qoq-án</i>	<i>qoq-qoɣ-án</i>
	<i>zen</i>	to be old	<i>zeen-í</i>	<i>zen-zen-án</i>
	<i>nas</i>	to be fat	<i>naas-ú</i>	<i>nas-nas-án</i>
b)	<i>mor</i>	to be distant		<i>mom-mor-í ~</i> <i>(mom-mor-án)</i>
c)	<i>korrá</i>	to be hot		<i>kor-korr-í ~</i> <i>(kor-korr-án)</i>
	<i>horrá</i>	to be bitter		<i>(hor-horr-í) ~</i> <i>hor-horr-án</i>
d)	<i>kaŋ</i>	to fall	<i>káŋg-an</i>	
e)	<i>gíman</i>	to be good		<i>giŋ-gimán</i>

It seems that the two very different strategies for adjective formation found in Tadaksahak are on the way to merging into one form that is used with all verbal roots. This merged form would be based on two or more syllables (possibly reached by reduplication), followed by the suffix *-an*. This implies a 'normalization' towards the Tamasheq pattern.

3.2.8.5 *Plural*

Adjectives agree in number with the noun they modify. Elicitation of the morpheme provides the form *-ənin*, which is added to the adjectivizer suffix, e.g. *ary-én yay-yay-án-ənin* 'cool water'. However, in our text data only few adjectives with the ending *-an-ənin* occur. It would seem that these two suffixes are abbreviated in running texts to a two-syllabic suffix where *-an* and *-ən* are collapsed to a long [a:] which results in the plural ending *-aanin*. This suffix combines the meanings 'adjective' and 'plural'. It seems that the stress pattern of the verbal root influences the stress possible on the suffix. Reduplicated roots tend to have the stress on the first syllable of the

suffix while roots with stress on the final syllable keep it there. Note this change in the two forms for ‘big’ on the list below (a).

The three roots without adjectival derivation under (b) take *-nin* as the plural suffix. In the forms ending in *-ay* the unstressed syllable is pronounced [e:]

(158) *Plural adjectives from texts*

	adjective	plural	phonetic	gloss
a)	<i>zadíig-an</i>	<i>zadíig-anin</i>	[za'digənɪn]	clean
	<i>bəbéer-i</i>	<i>bəbéer-anin</i>	[bə'be:rənɪn]	big
	<i>bəbbər-án</i>	<i>bəbbər-áanin</i>	[bəb:ə'ra:nɪn]	big
	<i>yayyay-án</i>	<i>yayyay-áanin</i>	[jɛj:ɛ'ja:nɪn]	fresh
b)	<i>bíibi</i>	<i>bíibi-nin</i>	['bi:bənɪn]	black
	<i>cíday</i>	<i>cíday-nin</i>	['tʃide:nɪn]	red
	<i>kóoray</i>	<i>kóoray-nin</i>	['ko:re:nɪn]	white

One clear exception is *gij-gimán* ‘good’. Its stem-final *an* is interpreted as part of the suffix and only adds *-ən* for the plural which results in *gij-gimán-ən*.

### 3.2.9 Quantificational adjectives

#### 3.2.9.1 Basic numerals

Most numerals are of Tamasheq origin. ‘one’ and ‘two’ are from Songhay and ‘twenty’ seems to have a cognate in Mauritanian Zenaga (Nicolas 1953:60).

The numerals from ‘one’ to ‘ten’ can modify a noun as part of the noun phrase. The numeral ‘one’ follows a noun in the singular and the numerals ‘two’ to ‘ten’ follow a noun in the plural, e.g. *báarar fóoda* ‘one child’ and *barr-én hiŋká* ‘two children’ respectively.

An abbreviated form of ‘one’ serves as indefinite marker for newly introduced entities in discourse, e.g. *surgoy fo* (woman IND) ‘a certain woman’.

The numerals from ‘two’ up can be used as nouns, too, without additional morphology when the referent is clear from the context. In a nominal function they can take the plural morpheme. The numeral

'one' needs to take the nominalizer prefix *a-* to be allowed in a nominal function. This prefix is also present when the word is used in isolation, i.e., when listing the numerals. This is shown by the brackets on the list below.

(159) *Numerals*

number	gloss
<i>a-ffó / (a-f)foo-da</i>	1
<i>hiṛká</i>	2
<i>kaaráḍ</i>	3
<i>akkóz</i>	4
<i>ḡammúf</i>	5
<i>ḡaadíj</i>	6
<i>ijǰá</i>	7
<i>ittám</i>	8
<i>ṭaaṣá</i>	9
<i>maará</i>	10
<i>táaḡinda</i>	20
<i>ṭ-ə-méedi</i>	100
<i>a-jím</i>	1000

### 3.2.9.2 *Compound numerals*

The multiples of ten higher than twenty are built by juxtaposition. This kind of compounding is not found elsewhere in the language. It seems to be an imported feature from Tamasheq where the constituents are in this same order, e.g. /səmmos(ăṭ) təṃərwen/ 'fifty' (lit. 'five tens'). The arguments that the 'tens' in Tadaksahak are compounds and not noun phrases are the following: 1) no postposition can be inserted between the two units; 2) final /a/ of *ijǰá* 'seven' and *ṭaaṣá* 'nine' behave as in tightly knit units 3) consonant-final numerals have the insertion of an epenthetic schwa between the two units and finally 4) the number 'thirty' regularly re-syllabifies in rapid speech (see Phonology 2.4.2.3).

The lexeme *t-ə-mérw-in* ‘ten small ones’ is a Tamasheq feminine plural derived from Tamasheq /märaw/ ‘ten’.

(160) *Compound numerals*

number	gloss
<i>akkóz-ə-t-ə-mérw-in</i>	40
<i>fammúf-ə-t-ə-mérw-in</i>	50
<i>iffáy-t-ə-mérw-in</i>	70

Another word derived from ‘ten’ has survived in the form of *t-a-máaruk* ‘tenner’ which designates the piece of money worth 50 Francs CFA (10x5 francs), it is also used to mean ‘small herd (consisting of some ten animals)’.

Numerals from ‘11’ to ‘19’ and all the other single digits between the multiples of ten are built as a coordinate noun phrase ‘ten and one/two/...’ ‘fifty and ...’

(161) *Formation of numbers 11 – 19*

number	gloss
<i>maará (ə)nd(a) a-ffó</i>	11
<i>maará (ə)nda hinká</i>	12
<i>maará (ə)nd(a) iffá</i>	17

The numbers beginning with ‘hundred’ and higher are expressed in a noun phrase. The lexemes ‘hundred’ and ‘thousand’ are the head, and occur in the plural when needed.

(162) *‘hundred’ and ‘thousand’*

singular	plural	gloss
<i>t-ə-méedi</i>	<i>t-é-mməd</i>	100
<i>a-jím</i>	<i>i-jíim-an</i>	1000

To form the numbers in between, the smaller units are added by inserting *ənda* ‘and’, e.g. *t-é-mməd hinká (ə)nda fammúf-ə-tə-mérwin ənda taaşá* (100 two and 50 and 9) ‘259’.

The numerals higher than thousand are loans from French, e.g. *miliyón* ‘million’ and take a plural suffix *miliyón-tan*. Syntax of these



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numerals and other types of quantifying modifiers are discussed in 4.1.5. and 4.1.6.

## 4 Syntax

This chapter starts with a discussion of the syntax of the noun phrase. This includes NPs with possessors, demonstratives, the determiner *ayo/ayondo* and modifiers like numerals and adjectives. In the next section (4.2) the different MAN markers with their uses are presented. Following that is a section about argument structure, i.e., the different types of verbs (4.3), and a special type of clause treated under copular clauses (4.4). In section 4.5 relative clauses are described followed by negations (4.6) and several small chapters about information structure (4.7). Finally the section on complex sentences (4.8) discusses clausal coordination, purpose and causal clauses, conditionals and adverbial subordination.

### 4.1 Noun phrases and adpositional phrases

#### 4.1.1 Overview

The simplest noun phrases (NP) are independent pronouns, which take no further marking for definiteness or plurality. In this section the other types of NP will be presented, i.e. NPs headed by a lexical noun or any other stem capable of functioning as NP head. Such stems can be numerals (4.1.5), adjectives preceded by the determiner (4.1.4), the demonstrative *na* followed by the determiner and pronoun clitics cliticizing to the postposition *wáni/wán-en*. This postposition is also involved in a special type of NP of the type 'Head [noun *wáni*]' (4.1.8).

All elements except the head are optional for a NP.

Modifiers like *da* 'very (one)', *za* 'so', *jé ~ jén* 'only' are discourse particles and not part of the NP. They may follow a NP.

The maximal structure of a noun phrase is as follows:

possessor – Head – (determiner) – demonstrative – numeral – adjective

The determiner gives the NP a different status on sentence level. See discussion under 4.1.4.

In postpositional phrases, the postposition immediately follows the head+demonstrative. Numerals, other quantifiers and adjectives follow the postposition (4.1.8).

(1) *Shapes of NPs*

<i>borá</i> person	a person	N
<i>bor-én hiŋká</i> people-PL two	two persons	N num
<i>t-a-ráswoy-t zíibit-an</i> F-SG-dress-F.SG be.dirty-ADJZR	dirty dress	N adj
<i>ayá-n feejí</i> 1s=GEN sheep	my sheep	[N/Pro=GEN] N
<i>a-zámar óoda</i> SG-lamb DEM	this lamb	N DEM
<i>ayo bíibi</i> DET black.ADJ	the black (one)	DET adj
<i>í-səls(a) úuray wán-en</i> PL-clothing gold of-PL	clothes (made) of gold	N [N POSS]

It is rare to find more than two modifiers accompanying a head noun in texts (not counting the determiner). There is no occurrence of a simple NP with both a numeral and a qualifying modifier in our corpus but they can be elicited.

**4.1.2 Possessor phrases**

There are two possessive constructions. In the first construction the possessor is marked by a postposition *n* (glossed GEN) and precedes the possessed. In the second construction, an element *wáni* (glossed POSS) is used, which follows the possessor. In this construction the possessor phrase follows the possessed.

**4.1.2.1 Genitive *n***

The most common possessor phrases are PPs consisting of a NP followed by the genitive postposition *n* (*ən* if following a C) (glossed

GEN). The postposition assimilates to the point of articulation of a following consonant (see 2.4.1.1). The possessor PP precedes the head of the NP.

With this construction a much wider range of semantic connections is expressed than possession only. Similar to English 'of', which ranges from ownership of property to part of whole and many other and more abstract relationships, *n* GEN is found in various contexts, among others, noun formations consisting of a concrete noun and a verbal noun such as *a-gáyis ən wí* (SG-bustard GEN kill.VN) 'bustard killing' or locational attributes such as *tugúdu n cidáy* (tree GEN underneath) 'under a/the tree'.

It was shown earlier (3.2.6.4) that the series of possessive pronouns also contains the genitive marker. As expected, the pronoun takes the place of the noun it replaces. The example below shows both a possessive pronoun in the possessor phrase and a genitive postposition joining two NPs.

(2)           [[*i-n*       *baba*] *n*]   *t-a-yázam-t*  
               3p=GEN   father GEN   F-SG-court-F.SG  
               their father's courtyard

Several possessor phrases can follow each other. Probably the maximal expansion is illustrated by the following example.

(3)           [[[[*aγ-n*    *amənóokal*] *ən*] *bundú*]   *n*]   *míya*  
               1s=GEN   chief           GEN stick       GEN end  
               the end of the stick of my chief

The allomorphs of the possessive pronouns are discussed under 2.4.2.4.

#### 4.1.2.2 Possessor *wáni* / *wán-en*

A possessor phrase formed with the postposition *wáni*, pl. *wán-en* follows the head NP it specifies. The postposition normally agrees in number with the head noun. Semantically an owner relationship is not its first function, most often it specifies the character of the head noun.

- (4) a) *a-máagor* [wáy wání]  
 SG-young.camel woman POSS  
 a female young camel
- b) *alzímáfa* [arw-én wání]  
 assembly man-PL POSS  
 a crowd of men (not of women)
- c) *zayrí* [altanín wání]  
 day Monday POSS  
 a Monday (not a Tuesday)
- d) *i-ssál-an* [t-á-zdæk-k wán-en]  
 PL-news-PL F-SG-cleanness-F.SG POSS-PL  
 news of/about cleanness

There are some examples in our corpus which show lack of number agreement with the head noun. In some instances the head noun is so far away from the particle that the speaker may have ‘lost count’ and then it agrees with the noun next to it. In the example below, a relative clause is inserted between the head noun and the modifier, and number agreement is with plural *bəkáw-yan* ‘jinns’, rather than with the singular head of the NP *t-a-náfus-t* ‘story’.

- (5) *t-a-náfus-t* *ayo* *ay-tə-d(á)* *ándi* *se*  
 F-SG-deed-F.SG DET 1s=FUT-do 2p DAT  
 [bəkáw-yan wán-en]  
 jinn-PL of-PL  
 the story I want to tell you (pl) is of/about spirits.

A possessive element of similar form is found in KS and KCH (/wane, wana/).

#### 4.1.3 Noun phrases with demonstratives

Tadaksahak has six different demonstrative particles that can specify a noun. None of them agrees in number with the head noun and they all follow the noun, with the exception of *na*. The determiner *ayo* DET

and *ayondo* ~ *əndayo* ~ *ənnayo* DET.PL are not part of this series of demonstratives since demonstratives can co-occur with this marker. All noun phrases with a demonstrative are definite, whether a DET marker is present or not. The function of the DET will be discussed in 4.1.4.

(6) *Demonstratives with their basic meaning*

form	meaning	gloss	label
<i>(a)sénda</i>	away from speaker or other deictic center	'that'	DEM.FAR
<i>óoda</i>	near to the speaker or deictic center, including cataphoric	'this'	DEM.NEAR
<i>áyda</i>	close to the addressee, in the proximity	'this'	DEM.PROX
<i>adí</i>	anaphoric, active	'that'	ANA
<i>o</i>	broader reference than <i>óoda</i>	'this/that'	DEBR
<i>na N</i>	facing, opposite	'this/that'	OPP

The three first demonstratives on the list are 'true' demonstratives, i.e. they can combine with any type of noun and specify it. They mark a three-way difference in distance, where *óoda* 'this' is close at hand while *sénda* 'that' is far away and *áyda* 'this' is in the proximity, yet not close at hand. *o* DEBR (DEmonstrative with Broad Reference) and *na* OPP (opposite) have a specific use and can therefore not combine with all nouns. *adí* ANA (anaphoric) functions on discourse level only; there is no spatial value linked to it.

The term *né* 'place' can combine with all the demonstratives except *sénda* 'that' and *na* 'opposite'.

The neutral referent *hé* 'thing' can combine with most demonstratives (except *sénda* 'that' and *na* 'opposite') and behaves then almost like a pronoun. Find examples in the appropriate sections below.

#### 4.1.3.1 *sénda* ~ *asénda* 'that'

- (7) *záw-kat ayáy [huur(ú) asénda]*  
 take-VEN 1s fire DEM.FAR  
 Bring me that fire!

This demonstrative can combine with an NP containing a possessive pronoun.

- (8) *ni-n haam(ú) asénda*  
 2s-GEN meat DEM.FAR  
 that your meat / your meat there

In combination with other determiners (see below) *sénda* may be shortened and appear as *sé* 'there', normally carrying stress (not to be confused with *se* DAT).

This demonstrative has its origin in Tamasheq. It can be used adverbially and as modifier of a noun phrase.

#### 4.1.3.2 *óoda* 'this'

The demonstrative *óoda* combines with location names and can be found together with a possessive pronoun.

- (9) a) *A-ǰǰayal óoda a-b-z-éǰǰəz ayay.*  
 SG-work DEM.NEAR 3S-IMPERF-CAUS-be.tired 1s.IO  
 This work makes me tired.
- b) *ayá-n haw(u) óoda əndánǰa...*  
 1s-GEN cow DEM.NEAR when  
 this my cow, when...
- c) *a-kkun(a) íǰǰi Assáyǰal óoda be.*  
 3s-find 3p.EMP loc.name DEM.NEAR LOC  
 he found them in Essayǰal here (the closer of two possible places with that name).

- d) ...*hár jé i-múu-dar-an óoda káamil*  
 until only PL-ACT-animal-PL DEM.NEAR all  
*i-hun(u)-án sénda ka.*  
 3p=leave-ALL DEM.FAR LOC  
 ... as soon as all these animals were dead there.

The combination with *he* 'thing' + *óoda* can be translated with 'this' as in 'he did this:...' and is in this form mostly pointing ahead in time, i.e. has a cataphoric function.

- (10) *a-ddá [h(e) óoda] a-ss-og(á) ánga*  
 3s-do thing DEM.NEAR 3s-CAUS-approach 3s.EMP  
*[éelaw ən t-í-nzar] ...*  
 elephant GEN F-PL-nostril  
 he did this: he approached it (the hot grease) to  
 Elephant's nostrils...

KCH and KS have a demonstrative /woo/ (Heath 1999a:82; 1999b:97) that can occur together with an emphatic particle /da/ in Gao (Heath 1999b:133, 265). One hypothesis is that *óoda* 'this' consists of /woo/ reduced to /oo/ plus /da/ the discourse function particle (glossed INT 'intensifier') also found in Tadaksahak. Note that several Tamasheq speech varieties also have a particle /da/ to indicate 'here, there, at the place in question' (Prasse et al. 2003:69, also Sudlow 2001:333).

#### 4.1.3.3 *áyda* 'this'

The deictic use of this determiner indicates closeness to the addressee.

- (11) a) *f-inf(á)-a táabəl áyda be.*  
 CAUS-put.on.BND=3s table DEM.PROX on  
 put it on this table (close to you)!
- b) *andə-gguná gánd(a) áyda*  
 2s-see land DEM.PROX  
*andə-b-guná(-a?) n(e) áyda ka...*  
 2s-IMPERF-see(=3s?) place DEM.PROX LOC  
 You(pl) see this land you see (it?) around here...(it is a lot  
 and you think it is worthless)

On discourse level its use is anaphoric.



- (12) *t-a-cíḍaw-t áyda a-tə-şót-kat áy=n wəl*  
 F-SG-bird-F.SG DEM.PROX 3s-FUT-fly-VEN 3s=GEN heart  
*ka...*  
 LOC  
 This bird (earlier topic in discourse) flew from her heart...

*áyda* occurs most frequently with *né* 'place' to indicate a temporal 'now' or a spatial 'here'. Acoustically this is very close to *néeda* 'here' [né:da] while *n(e) áyda* is pronounced [néjda]. In texts the two expressions are sometimes interchangeable but in deictic use they are clearly distinct from each other, i.e., *néeda* gives a very specific place while *n(e) áyda* is close by but not a specific spot (see second line (11)b).

Sometimes when *h(e)* 'thing' + *áyda* occurs, e.g., 'he did this (action named before)...'. it can be replaced by *h(e) + adí* 'he did this (afore named action)'.  
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 Sometimes when *h(e)* 'thing' + *áyda* occurs, e.g., 'he did this (action named before)...'. it can be replaced by *h(e) + adí* 'he did this (afore named action)'.

One possibility of an origin of this determiner is a fusion of two morphemes: *a=* '3s' and *da* INT. It has been shown (3.2.6.4) that this clitic has an allomorph *ay=* when it attaches to something other than a verb stem. A semantic paraphrase could then be '(the/a) very him' indicating that 'he' is known and has been mentioned before.

#### 4.1.3.4 *adí* 'anaphoric'

*adí* is always anaphoric to an established referent in the discourse, marking a participant or other referent still active in the hearer's mental representation.

It can often be observed together with the neutral noun *he* 'thing' to refer to some past event.

- (13) *aywa t-a-néfus-t a-bbén mæffin dá*  
 RESUME F-SG-story-F.SG 3s-be.finished but INT  
*aṭṭáalib a-kkás alwalí dæffér [h(e) adí]*  
 student 3s-be seer after thing ANA  
 so, the story is finished, however, the student became a  
 seer after this (the deed told in the story).

In Songhay of Gao there is an anaphoric particle /din/ with a similar function (Heath 1999b:131). Nigerien Tawəlləmmət Tamasheq uses a demonstrative with exactly this shape but with a different function (Prasse et al. 2003:70).

#### 4.1.3.5 *o* 'broad anaphoric'

The element *o* refers to a broader referent than a particular point in time or place - rather to a period or an area. In the following short exchange this determiner is used. It does not refer to a particular moment during the morning, but rather to the more vague time period 'morning':

- (14) Q: *c(i) agúd a-ttén?*  
 what? time 3s=arrive  
 when did he arrive?

A: *alfájr o.*  
 morning DEBR  
 this morning. (of the day the conversation takes place)

*o* is used most frequently with temporal and spatial nouns. In a temporal context it can stand in opposition to *óoda* which is cataphoric.

Particularly with a perfective aspect on the verb, the particle is used to indicate anteriority in time.

- (15) a) *t-áa-dwi-t o i-zzoy*  
 F-SG-afternoon-F.SG DEBR 3p=fight  
 This (past) afternoon they had a fight.
- b) *...aya-m-húnu-kat ay-n aláañit*  
 1s-SUBJ-leave-VEN 1s=GEN tablet  
*[t-áa-dwi-t óoda]*  
 F-SG-afternoon-F.SG DEM.NEAR  
 ...I (may) finish my (koranic) lesson this (coming)  
 afternoon."

*o* easily combines with *he* ‘thing’ and then takes almost pronoun-like properties. This combination will be glossed as a single unit *ho* (thing.DEBR) ‘this’. A frequently found NP is *ho sénda* ‘this/that’. Consider the following example. A long explanation is summed up with this final sentence:

- (16)        [[*ho*        *sénda*]    *be*]    *za*    *i-gguná-katsá...*  
                  thing.DEBR    DEM.FAR    LOC    LC    3p=see-VEN COMP  
                  So, because of this [lit: this thing there] they saw that...

For stylistic reasons, some speakers use *o* after non-temporal nouns instead of *óoda*, e.g. in direct speech, even when elsewhere in the story the long form is used.

The closest relative of this particle is the Songhay demonstrative /wool/ ‘this/that’ which is also used anaphorically in discourse (Heath 1999a:61; Heath 1999b:130). In addition, KS has a definite singular suffix /-oo/ or /-aa/ (Heath 1999b:127) which may be another, less probable, source for this demonstrative in Tadaksahak.

The demonstrative *óoda* ‘this’ could also be a candidate, assuming that *o* could be an abbreviated form of the latter. The demonstrative *o* has a clear preference for combining with temporal nouns, whereas *óoda* is not restricted. In some instances the two may be interchangeable yet in others they have opposing meanings (see above).

#### 4.1.3.6 *ná* ‘opposite’

This determiner precedes the noun it marks. In combination with *ayo* DET, which functions as the head, *ná* is a frequently used demonstrative. Any object or person pointed at without being called by its name can be referred to by *ná ayo* ‘this (one)’

- (17) *[ná ayo] a-b-s-éwəl t-ée-laq-q*  
 OPP DET 3S=IMPERF-CAUS-sharpen F-SG-knife-F.SG  
*[ná ayondo] i-f-kaṭám-kaṭam haamú*  
 OPP DET.PL 3p=IMPERF-cut meat  
 this (one) sharpens a knife, those are cutting meat.

Syntactically, this conglomerate is treated like a full NP consisting of a noun with determiner.

In texts, *ná* alone is most frequently found determining nouns of location, mostly together with a shortened form of the demonstrative ‘that’ *sé* and it conveys a location facing (‘vis-à-vis’) the place from where the action starts.

- (18) *a-ffur-an-a [[n(a) áŋgu]sé] ka*  
 3s=throw-ALL=3s OPP place DEM.FAR LOC  
 he threw him away over there.

When the particle appears twice in the same sentence, it indicates two opposed possibilities of the same entity, as marked in English with ‘this or that’. The following command encodes such an instance.

- (19) *wa dá [ná hó] wa dá [ná hó]*  
 IMP do OPP thing.DEBR IMP do OPP thing.DEBR  
 do (pl) this (and) do (pl) that!

*ná* occurs three times in the corpus in the introductory clause to a story, accompanying the future major participant. In all these cases the storyteller may have conveyed that she/he judges the behavior of that particular participant undesirable, not good for the hearer to copy.

- (20) *i-ccí kəlá kəlá [na wáy fó]*  
 3p=say once once OPP woman IND  
*hó sé*  
 thing.DEBR DEM.FAR  
 there was once this woman...

Songhay of Gao has a preverbal direct object morpheme /na/ that also precedes the noun (or pronoun) it marks (Heath 1999b:212). Semantically far from determiner, this particle is by its shape and syntactic behavior the closest candidate for an origin of *ná*.

#### 4.1.4 NPs with *ayo* ‘determiner’

The determiner *ayo* follows the noun it modifies and is always followed by an additional element, typically a demonstrative, e.g. *tugúdu ayo óoda* /tree DET DEM.NEAR/ ‘this tree’.

The particle is attested in singular and plural form with dialectal variants.

##### (21) *Forms of the determiner*

<i>ayo</i>	DET	
<i>ayondo</i>	DET.PL	Talatayt
<i>əndaɣo</i>	DET.PL	Meneka
<i>ənnayo</i>	DET.PL	Infukaraytan
<i>wanɣo</i>	DET.PL	Tamalet

The plural forms may be *ayo* fused with other particles known in the language, i.e. *ənd(a)-ayo* (with-DET) ‘those’ with the contracted form *ənn-ayo* and *ayo-(ə)nd(a)-o* (DET-with-DEBR) ‘that with those’ and a last variant that seems to contain a Tamasheq particle /w-/ that is used in the same environment. Especially the first variant *ayondo* is also found with the additional morpheme *no* ‘there’ intervening *ayonda-no* ‘those there (= at question)’ where the last element (demonstrative) is dropped in favor of a semantically more locational element.

The particles do not seem to have lexical stress, rather the following element, e.g., an inflected verb, a demonstrative or a postposition, carries the stress.

*ayo* can be combined with all demonstratives.

In combination with the determiner an NP has a different status on sentence level. NPs with a head noun and a determiner are always topicalized or constitute an otherwise salient element of the sentence.

The determiner together with *ná* OPP may also function as a pronoun for (con)textually established entities without a noun present. *Ayo* is also found after NPs that are followed by a relative clause (see 4.5.1).

The origin of the particle is not easy to find. It is attested in the other Northern Songhay languages but not in this shape in Mainstream Songhay.

#### 4.1.4.1 *ayo* + demonstratives

These examples are all given with a larger context, sometimes in English, to show the salience of the NP. The examples are given with the demonstratives in the same order as in the previous section.

- (22) (when he left his wife, she was washing dishes.)  
*a=yyed-kat-a t-oo-lás-t*  
 3s-return-VEN=3s F-SG-repeat-F.SG  
*tuw-yén ayondo sénda i=nə-hímay.*  
 receptacle-PL DET.PL DEM.FAR 3p=NEG.PERF-wash  
 (when) he came back to her again, those dishes were not  
 (finished) washing.

- (23) *fur ay(o) óoda ánga a-dégag*  
 throw.VN<sub>i</sub> DET DEM.NEAR 3s.EMP<sub>i</sub> SG-fear  
*a-sé-mmay ni-wáni a-dégag wáni!*  
 3s=NEG.IMPERF-OWN 2s-of SG-fear of  
 this throw, there is no fear in it, (but) yours was of fear!  
 (= I was not afraid when I threw, but you were!)

In texts, *óoda* appears more frequently with DET *ayo* than without it. This seems logical since this particle indicates ‘at the center of interest’ and this would often be the (re-introduced) topic or the thing that is going to be talked about, i.e., such a noun phrase is also marked for topicality or focus and is salient in its context.

- (24) (do you understand this? [speaker addressing hearer])  
*zama aaru ayó (a)yda a-ttén enda*  
 after man DET DEM.PROX 3s-arrive with  
*t-a-kárdas-t óoda (h(e) adí za)*  
 F-SG-letter-F.SG DEM.NEAR thing ANA LC  
*a-nn(á) áa-se n i.*  
 3s-give 3s=DAT SEP 3p  
 after this man had arrived with this letter, (so this) he gave  
 them (camels) to him.

- (25) (a marabout's wife, after having declared that it was not the food that had brought her to this (other) man but his person, gets the answer:)

*kaláakala*

no

*he (a)yo (a)dí wiji hé ay-tə-háaʃi-an ayáy.*

thing DET ANA is.not thing 1s=FUT-look-ALL 1s

no, this (that you want to live with me) is not something that I will consider.

The only occurrence of *o* DEBR following *ayo* is found where the specified referent is an utterance. Later this utterance is used as a name, around which the whole conflict of the story turns. It is here marked as salient for the story.

- (26) (Hare heard her...)

*s(a) a-ccí he (a)yo (ó)*

COMP 3s=say thing DET DEBR

*s(a) ínnazag a-ccí bárr-en se*

COMP hyena 3s=say child-PL DAT

*'andə-b-déeraw' ayo (ó).*

2p=IMPERF-share DET DEBR

...that she said this, that Hyena said this "You(pl) share" to the children.

Final vowel shortening does not allow length to mark the particle. It is in fact stress on the last syllable of *ayó* that indicates the presence of another morpheme.

When *ná* 'opposite' co-occurs with *ayo* in order to modify a noun, the combination follows the noun and then behaves like all the other demonstratives.

- (27) *Arə-háw t-a-bákar-t [[tugúdu nná ayo] ka]*

1p=attach F-SG-ewe-F.SG tree OPP DET LOC

We attached the sheep at that tree over there. (in front of the speaker at the moment of the report, pointed at)

#### 4.1.4.2 *ayo + wani/wan-en*

When *ayo* occurs together with the possessive element *wani*, it follows the head noun immediately. When a demonstrative is present, it follows DET. Two of the examples have a location name that is referentially definite.

- (28) a) *t-a-dáalat-t*                      *ayo* [*áagar*    *wáni*]  
 F-SG-be.green-F.SG                      DET    tree.sp            POSS  
 (the) green of the 'aagar'-tree.
- b) *gánd(a)*    *ayo* [*Idéeləman wáni*]  
 earth                      DET    loc.name            POSS  
 the region of Indeliman
- c) *mán ayo óoda*                      [*Áffud*    *wáni*]  
 name DET    DEM.NEAR    loc.name            POSS  
 this name (of) 'Affud' (=Ansongo)

In constructions with possessive markers, *ayo* seems to be insensible to number as the following example shows (see also (c) below):

- (29) *i-múnas*    *ayo* [*Áyyar*    *wáni*] *i-b-zaryáf.*  
 PL-camel            DET    loc.name            POSS    3p=IMPERF-be.spots  
 the camels of the Air have large spots.

#### 4.1.4.3 *ayo + n*

This combination is found in a type of compound like words e.g. 'airplane' and 'feast'. Note that the constituent order is different from the regular genitival construction. Here the head precedes the modifier and *ayo* seems to be insensible to number (c).

- (30) a) [*t-óo-ruf-t*                      *ayo n*    *i-zínn-an*] *á-mmay*  
 F-SG-car-F.SG                      DET    GEN    PL-sky-PL    3s=have  
*áfr-an*                      *hiṅká.*  
 wing-PL                      two  
 The airplane (lit: car that of sky) has two wings.
- b) [*zayrí*                      *ayo n*    *jinjirí*]  
 day                      DET    GEN    prayer  
*kullú bor(á)*                      *a-dd(á)*    *ée-zəl.*  
 each person                      3s=put            SG-dress.up  
 (On) the feast (lit: day that of prayer), everybody dresses up.



- c) *í-ŋgur-an ayo n agíilal*  
 PL-braid.type-PL DET GEN rear  
 neck braids (braided in a particular way)

The next example is standard for the terms ‘older and younger sibling’. They always occur with a determiner of some kind (often a possessive, e.g., ‘my’).

- (31) *ayo n céena a-té-ci*  
 DET GEN younger.sibling 3s-FUT-say  
*ayo n bér se:*  
 DET GEN older.sibling DAT  
 The younger (brother) would say to the older (brother):

Temporal expressions are also found with this construction.

- (32) *Ar=n alzímmæt ayo n bi...*  
 1p=GEN chat DET GEN yesterday  
 Our chat (of) yesterday ...

#### 4.1.5 NPs with numerals

##### 4.1.5.1 Numerals ‘one’ to ‘ten’

Numerals from ‘one’ to ‘ten’ follow a noun like most other modifiers. The noun is in the plural and a demonstrative or a possessive may be present.

- (33) a) *...aya-m-d(á) ándi s(e) [a-séstən fío-da]*  
 1s-SUBJ-do 2p DAT SG-question one-INT  
 ... to ask you one question
- b) *[bor-én kaarád] ə-b-guŋ(ú) [i-múnas hiŋká]*  
 person-PL three IMPERF-lead PL-camel two  
 (here are) three persons leading two camels
- c) *i=mmáy [í=n nan-én hiŋká]*  
 3p=have 3p=GEN mother-PL two  
 They had their two mothers

All numerals from 'two' to 'ten' can function as the head of an NP.

- (34)        *[hiŋk(á)]*    *i-b-n-ébdəd*  
               two            3p=IMPERF-RECI-talk.BND  
               Two are talking with each other.

Postpositions precede modifying numerals. An example is given below in (59).

One occurrence of the plural indefinite marker *cind-én* with a numeral was found in the introductory sentence to a story. The indefinite marker follows the modified noun immediately and the numeral closes the NP.

- (35)        *[arw-én    cind-én    hiŋk(á)]*    *í-báara*  
               man-PL        IND-PL        two            3p=be  
               (there) were two certain men

Both men are equally important for the ensuing story and may therefore be introduced this way.

#### 4.1.5.2 Numerals from 'ten' to 'ninety'

Noun phrases with numerals higher than 'ten' are formed as a genitive construction. The modified noun, i.e. the head and last element of the clause, is in the singular.

- (36) a)    *táafinda    n    zaŋrí*  
               twenty        GEN    day  
               twenty days
- b)    *ṭáasay-t-ə-mérw-in    ən    borá*  
               nine-F-PL-ten-PL        GEN    person  
               ninety people

This construction can be used to express 'for X money' where the numeral gives the amount of money and the head noun is the item paid for. Often the head is a mass noun but it can also be some other item that can be bought. The numeral refers to the smallest monetary unit, 'one coin' of 5 Francs CFA.

- (37)        *záw-kat    aŋáy [táafinda    n    jí]*  
               take-VEN    1s    20            GEN    butter  
               Bring me butter for 100FCFA.

#### 4.1.5.3 Numerals higher than 'hundred'

The terms '100' and '1000' and 'million' are nouns that are counted like other entities and then appear in the plural. They are mostly used in connection with money where the numeral '100' designates the 500CFA bill/coin. The examples below illustrates that the postposition follows the noun immediately even if this happens to be a complex numeral.

- (38) a) *aɣa-ʃʃ-úr*      *ana*      *ʃammúf-ə-t-ə-mérw-in*  
 1s-CAUS-put.on    2s.DAT      five-[ə]-F-SG-ten-PL  
*[a-jím*      *be*    *ənda [t-é-mməd*      *ʃammúf]]*  
 SG-thousand      LOC    with    F-PL-hundred      five  
 I add you fifty on the thousand and five hundred.  
 = I add you 250CFA on the 7500CFA.
- b) *s-ədbəl-an*      *miliyón-tan [zaɣr-én*    *be*    *kaarád]*  
 CAUS-heap-ADJZR    million-PL    day-PL      LOC    three  
 heaping up millions (in money) in three days

#### 4.1.5.4 Ordinals

Ordinal numbers are formed as a phrase containing first the determiner *aɣo*, then the comitative *ənda* 'with' and then the numeral. According to regular vowel elision rules /o/ is always heard but the final /a/ of *ənda* is deleted when a vowel initial numeral follows. For some unknown reason, *aɣo* receives stress in this construction.

The numeral '1' cannot be combined with this paradigm. Instead a noun phrase based on a verb stem comes in place of the numeral.

- (39)      *Ordinals*
- |                         |        |
|-------------------------|--------|
| phrase                  | gloss  |
| <i>aɣo yizzár-an</i>    | first  |
| DET be.ahead-ADJZR      |        |
| <i>aɣó (ə)nda hiŋká</i> | second |

*ayó (ə)nd(a) akkóz*      fourth  
*ayó (ə)nda maará*      tenth

This paradigm can constitute an NP by itself when the referent is known, or it can be a modifier to a noun.

- (40) a) [*ayó (ə)nda hiŋká*]      *a-nə-yée-kat*  
 DET with two      3s=NEG.PERF-return-VEN  
 the second did not return.
- b) *ciimí [ayó (ə)nda kaaráɖ]...*  
 truth DET with three  
 the third truth...

When counting days yet another paradigm is possible. The referent of the possessive pronoun *ay-n* 'its' in the example below is 'this current month'. Thus referring to a definite entity the numeral can be read as an ordinal with a literal rendering 'its (month) twentieth'.

- (41)      *alhád*      [*ay-n*      *táafinda*],      *wiji?*  
 Sunday      3s=GEN      20      is.not  
 Sunday is the twentieth, isn't it?

#### 4.1.5.5 Multiplication and distributive clauses

Multiplication can also be expressed with a simple NP. The head is a numeral in the plural and the modifier numeral expresses 'how many times'.

- (42)      *iff-én*      *kaaráɖ*           *kaaráɖ-én iffá*  
 seven-PL      3           three-PL      7  
 3 times seven           7 times three

Numerals above 'ten' use a different paradigm that can also be used for numerals below 'ten'.

- (43) a) *táafinda*      *har*      *maará*  
 twenty      until      ten  
 ten times twenty
- b) *fammúf*      *har*      *maará*      *(ə)dn(a)*      *a-ffó*  
 five      until      ten      with      SG-one  
 eleven times five.

Distributive clauses reduplicate the numeral. ‘one’ appears first in a shortened form and then as the full count noun. The other numerals do not change shape when used in this paradigm.

- (44) a) *a=b-dumb(u)-i je (ə)nd(a) a-ffó a-ffóo-da*  
 3s=IMPERF-cut-3p only with SG-one SG-one-INT  
 He had simply killed them one by one.
- b) *wa mə-ṭər-ṭər ənda hiṅká hiṅká.*  
 IMP RECI-DUP-line.up with two two  
 Line (yourself.pl) up two by two!

#### 4.1.5.5.1 One and the other

Several strategies exist to express ‘one and the other’. When both referents are established and equally important for the ongoing action, the following construction can be used:

- (45) *a-ffó (a)=cc(i) a-ffó se...*  
 SG-one 3s=say SG-one DAT  
 One said to the other:...

However, there exists also the expression *fáḍḍan ~ fáaḍan* that denotes ‘other’, ‘different from another known X’ in all contexts.

- (46) *ayo fáḍḍan a=cc(i) áy=n caráy se:...*  
 DET other 3s=say 3s=GEN friend DAT  
 The other said to his friend:...

When the additional feature ‘antagonist’ of an ongoing story needs to be conveyed, yet another way is possible to express ‘the other(s)’: The demonstrative *na* ‘opposite’ together with the determiner *ayo* encode ‘the other (opponent)’. This is exemplified in example (47).

The text material preceding the following example informs the listener that the first son, the antagonist of the other sons, had received a limping horse. Then follows the clause:

- (47) *a-nná ná ayondo se baar-én*  
 3s-give OPP DET.PL DAT horse-PL  
 (and) He (father) gave (good) horses to the other ones.

#### 4.1.6 NPs with other quantifying modifiers

Several modifiers are found that indicate the whole group of a given set. *káamil* 'all' (from Arabic /kaamil/ 'entire') always follows the noun it modifies and does not agree in number.

Examples of *káamil* 'all'

- (48) a) *[i-mənoókəl-an káamil] i-kkəsán i-múnsuw-an.*  
 PL-chief-PL all 3p-refuse PL-meal-PL  
 All the chiefs refused to eat.
- b) *[[hé (a)yo sénda] káamil] nín a-f-keedí*  
 thing DET DEM.FAR all 2s 3s=IMPERF-be.on  
 All that is your responsibility (Lit: lays on you).
- c) *ba gédəm áa-be, [áandi káamil]*  
 IMP lay 3s=LOC 2p.EMP all  
 Lay(pl) on him, you all!

In some instances with a singular noun it can be read as 'every one of a given entity' as in *ənd(a) a-hándag káamil* 'towards every place'. In other instances a reading is also 'entirely' or paraphrased differently 'all of X' as in *a-ηη(á)-a, ánga káamil* 'he ate him entirely'.

*kullú* 'each' can be read as 'each one of a given entity' and so also indicates 'all' in some instances. Again, this modifier does not agree in number with the head noun which it follows.

Examples of *kullú* 'each'

- (49) a) *ún za [hé (a)yo óoda kullú]*  
 indeed LC thing DET DEM.NEAR each  
*alfáqi óoda a-sséstən ənd(a)-á...*  
 teacher DEM.NEAR 3s=ask with=3s  
 So indeed, all this the teacher was asking himself....
- b) *[íngi kullú] a-ffárrəd áy-n ga se*  
 3p.EMP each 3s=neglect 3s=GEN self DAT  
 Each one of them (preventions) he neglected for himself.

*kullú* is rarely found with plural entities and the second example above could be analyzed as an equational clause and then read 'they

(preventions) are each (something) ...' so insisting on each single action yet still including all of them.

A dialectal variant is *hák* 'each' (from Tamasheq) used in the southern region, as found in *hak borá* 'each person' or *hak a-ffo* 'each one'. It precedes the noun it modifies.

Another expression for 'each/every' is *íttilla* (from Tamasheq). Like *hák* this modifier precedes the noun it modifies. It is only used with singular nouns. When combined with countable time expressions like 'day' each single entity is evoked. In that context *káamil* and *íttilla* are synonyms: *íttilla záyri = záyri káamil* 'every day'. Less countable time expressions like 'moment' convey 'every moment = whenever'. When *íttilla* stands by itself a time referent is evoked 'each time/whenever'. 'person'-type words may be perceived as uncountable since the modification encodes 'everybody'.

- (50) a) [*íttilla záyr(i)*]    *i-tə-tén*            *sénda...*  
 each day            3p=FUT-arrive            DEM.FAR  
 Each/every day they would arrive there...
- b) [*íttill(a) ágg*    *aádəm*]    *máññ(a)*    *a-tə-dáar-a*  
 each son.of    Adam    lack.food    3s=FUT-harm=3s  
 Everybody will suffer for lack of food.
- c) [*íttill(a)*]    *a-yyíkti-kat*    *ayáy...*  
 each            3s=remember-VEN 1s  
 Each time (=whenever) he remembers me...

Different from Mainstream Songhay, where /kul/ has the above functions as well as some others, Tadaksahak has different quantifiers, which all tend to have their specific function but sometimes overlap. *kullú* is mainly used with singular entities to evoke 'each of X' underlining the single unity of a set, where as *káamil* mostly modifies countable plural nouns and then denotes 'all Xs'. This can be very generic as in *bor-en káamil* 'all people = everybody' where it is equivalent with *íttilla bora* 'everybody'.

An expression for a non-specified ‘every one of a group’ is *káaka*. This form may be related to the postposition *ka* LOC that can in some contexts be read as ‘from among’. A possible analysis is then *X k(a) áa-ka* ‘from among X he/she/it in (it) = whoever/whatever’. However, the term is invariable even when used with plural nouns (example d) below).

- (51) a) *məjjín* [t-a-báyor-t *káaka*] *ni-ddá*  
 but F-SG-fortune-F.SG whatever 2s=make  
*gánda ka (ə)n-sé-mmáy...*  
 land LOC 2s=NEG.IMPERF-have  
 But whatever fortune you make in a country that is not yours...
- b) *wala* [he *káak(a)*] *a-ddá...*  
 or thing whatever 3s=do  
 or whatever he did...
- c) [bora *káak(a)*] *a-f-kéeni*  
 person whatever 3s=IMPERF-sleep  
*ayn á-dagar dá a-tə-kéeni.*  
 3s-GEN SG-share INT 3s=FUT-sleep  
 Whoever is sleeping, his share is laying (down), too.
- d) [ary-en *káaka*] *ni-b-nín...*  
 water-PL whatever 2s=IMPERF-drink  
 whatever water you drink...

‘Many’ or ‘much’ is expressed with the verbal root ‘be much/many’ *babó* derived as adjective and then following the noun, e.g. *ay-n almán babó-(a)n* (3s=GEN herd be.numerous-ADJZR) ‘his big/numerous herd’ or *id-almáŋna babó-(a)nən* (PL-meaning be.numerous-ADJZR.PL) ‘many meanings’.

A genitive construction with *íccet* ‘quantity’ expresses ‘a lot of’, with pejorative connotations. *íccet ən t-a-bázŋaw-t* (quantity GEN F-SG-old.donkey-F.SG) ‘(what) quantity of old donkey’ is said about a person that works slowly or moves inelegantly.

‘Few’ or ‘little (bit) of’ is expressed in a genitive construction. The reported way to say ‘a little bit of X’ is *X n hé* (X GEN thing) or *árat ən X* (thing GEN X). The latter is imported from Tamasheq together with the syntax with a reversal of head and dependant from the Tadakahak point of view. In our texts a conglomerate of both is used in all but one case, e.g., *árat ən yél ən hé* (thing GEN green.grass GEN



thing) ‘a little bit of green grass’. The double expression may be a way to insist on the really very small amount.

‘not much of an action’ or an otherwise more abstract entity is expressed with a clause. The clause can be repeated to convey an intensified ‘small amount’ as it is done to answer “Do you know French?” *h(e) á-cceená, h(e) á-cceená* (thing 3s=be.small) ‘very little’. In the second example given below, however, the repetition with the preceding *enda* ‘with’ is distributive to convey ‘a little bit here and a little bit there’.

- (52) a) *ay-tə-déwwənn-ət*      *áa-ka*      *h(e) a-cceená*  
 1s=FUT-speak                      3s=LOC                      thing 3s=be.small  
 I will speak a little bit about it.
- b) *alxér a-f-tén*  
 peace 3s=IMPERF-arrive  
*enda h(e) á-cceená*                      *h(e) á-cceená*  
 with thing 3s=be.small thing 3s=be.small  
 Peace arrives little by little...

#### 4.1.7 NPs with adjectives

In a simple NP of the type ‘a beautiful girl’ the pattern is the same as with the other modifiers. The adjective follows the modified noun and agrees in number with the noun. Simple NPs with an adjective occur most frequently in the introductory clause of a new participant, e.g., ‘they had a black goat’. A demonstrative and/or the determiner may intervene and then precedes the adjective.

- (53) a) *t-á-ηgud*    *giη-gimán*  
 F-SG-girl      DUP-be.good  
 (a) beautiful girl
- b) *aarú bum-bun-án*  
 man DUP-be.dead-ADJZR  
 (a) dead man

- c) *bi-yén giŋ-gimán-ən*  
 shade-PL DUP-be.good-ADJZR.PL  
 pleasant shades
- d) *i-wútay yibrár-anən*  
 PL-year be.bad-ADJZR.PL  
 bad years
- e) *ay-n míya sə-sməd-án*  
 3s-GEN beak CAUS-be.pointed-ADJZR  
 its pointed beak (of a bird)
- f) *íizac(e) asénda giŋ-gimán*  
 youngster DEM.FAR DUP-be.good  
 that handsome young man
- g) *diní baarí ayo n-əfrən-ən...*  
 take horse DET RECI-be.chosen-ADJZR  
 take the best horse... (Lit: horse that is chosen...)
- h) *hé (a)yo duuw(a)-án ...*  
 thing DET be.better-ADJZR  
 it is better... (Lit: the better thing is...)
- i) *aaru ná ayo ceen(á)-an*  
 man OPP DET be.small-ADJZR  
 that other young man

There are no occurrences of a noun modified by two adjectives. Numerals can occur together with adjectives. The following example is elicited.

- (54) *aya-gguná surgó-(e)n kaarád giŋ-giman-én*  
 1s-see woman-PL three DUP-be.good-ADJZR.PL  
 I saw three beautiful women.

Adjectives preceded by *ayo* as the head can serve as NPs. An indefinite referent formed by an adjective is preceded by *a-ffó* 'one'.

- (55) a) *ayo yaynáay-an a-nə-gíman.*  
 DET be.new-ADJZR 3s-NEG-PERF-be.good  
 the new (one) is not good.
- b) *a-ffó yaynáay-an a-dduwá*  
 SG-one be.new-ADJZR 3s-be.better  
 a new (one) is better.

#### 4.1.8 Postpositional Phrases

Postpositional phrases contain a postposition and a NP. The postposition follows the head of the NP and some modifying phrases or elements, but precedes other modifiers. This behavior is shown below.

The postposition follows the modifying element when the head is followed by a possessive phrase with *wáni/wán-en* and when the head is followed by a demonstrative, e.g.

- (56) a) *[zayr(i) áltanín wáni] ka*  
 day Monday of LOC  
 on a Monday
- b) *[í-yərm-an óoda] ka*  
 PL-town-PL DEM.NEAR LOC  
 in these towns
- c) *[Tassérəst óoda] be*  
 loc.name DEM.NEAR LOC  
 in this T.
- d) *[[ho sénda] be] za...*  
 thing.DEBR DEM.FAR LOC LC  
 so because of that... (Lit: so on that...)
- e) *[íi-zəŋg(a) adí] daw*  
 PL-enemy ANA LOC  
 (arrived) at the enemy's (place)
- f) *[surgóy káaka] daw*  
 woman whatever LOC  
 at whatever woman('s place)
- g) *[íizac(e) ayo sénda] se*  
 youngster DET DEM.FAR DAT  
 to that young man

Other modifiers follow the postposition. This is the case of adjectives and quantifying modifiers. The verb 'to look for' in the following example has an obligatory DAT argument. The dative postposition *se* is placed before the adjective.

- (57) *aya-bb-əmmaɣ aɣ-n almán se ʃi-ʃʃiy-án*  
 1s=IMPERF-search 1s=GEN herd DAT DUP-not.be-ADJZR  
 I am looking for my lost herd.

Likewise in the following PP the postposition immediately follows the noun:

- (58) *tuw-yén ka zadíg-ənən*  
 bowl-PL LOC be.clean-ADJZR.PL  
 in clean bowls

This is different from KCH and KS where the postposition is always the last element of a NP even when an adjective is present (Heath 1999a:83 and Heath 1999b:114).

Numerals modifying nouns behave the same way as adjectives. The same is true of *káamil* 'all'.

Examples:

- (59) a) *s-ədbəl-an miliyón-tan [zayr-én be kaarád]*  
 CAUS-heap-ADJZR million-PL day-PL LOC three  
 heaping up millions (of money) in three days
- b) *áy-n saffarí a=yyába-kat [id-áddəwəl ka káamil]*  
 3s=GEN medicine 3s=lack-VEN PL-country LOC all  
 there is no medicine (against it) in any country.

#### 4.1.9 NP Coordination

##### 4.1.9.1 Conjoining *ənda* 'with, and'

*ənda* 'with, and' has several functions and meanings, as discussed in 3.2.7.8 (instrument preposition), and 4.8.3.1 (conditional). Between NPs, *ənda* is used as a coordinative element.

- (60) a) *á=mmaɣ haw-yén ənd(a) i-méɳas.*  
 3s=own cow-PL with PL-camels  
 he owns cattle and camels.

- b) *surgó-(e)n ənd(a) arw-én ənda bárr-en i-ttén*  
 woman-PL with man-PL with child-PL 3p=arrive  
 women, men and children arrived.

In enumerations, the verb may break up the series, and one item appears before the verb. In anticipation of the further items, pronominal reference on the verb is plural.

- (61) *mammaní i-báara ənda fatilla n tónd-en*  
 perfume 3p-exist with torch GEN stone-PL  
*ənd(a) id-aşşáabu-tan ənda takúla-tan.*  
 with PL-soap-PL with bread-PL  
 there are perfume, and torch batteries, and (pieces of)  
 soap and (loaves of) bread.

#### 4.1.9.2 Disjunctive *mey*, *máday* and *wala 'or'*

There are a number of disjunctive particles, the most common being *mey* 'or' (from Tamasheq), which does not seem to have lexical stress. This particle is part of the following NP and is unaccented as long as there are less than two unaccented syllables following.

In the second example below the noun is not repeated and so *mey* comes to stand between two numerals. Even without the noun, the numerals do not need additional morphology to occur in this kind of phrase.

- (62) a) *jí ák dílwil mey almán wáni?*  
 butter QST oil or herd of  
 butter, is it (vegetable) oil or of the animals?
- b) *ni-f-kuná [katíbi-tan fammú] mey maará*  
 2s-IMPERF-find coin-PL five or ten  
 you earn five or ten coins.

In addition some speakers use *máday*, another disjunctive particle taken over from Tamasheq.

- (63) *a-zz-ézræg ay=n t-á-ŋgud*  
 3s=CAUS-go.water 3s=GEN F-SG-girl  
*a-yázar mádaɣ baŋgú*  
 SG-pond or well  
 She sends her daughter to the pond or to the well for water.

Yet another particle, *wala*, is sometimes used as a disjunctive device. This particle is originally from Arabic. In Tadaksahak texts, *wala* is relatively infrequent as a disjunctive particle for noun phrases. It is more commonly used in phrases translatable as '(not) even' or 'without'.

- (64) *a-sə-húuru t-ə-kuṛúkaɖ na aɣonda no*  
 3s=NEG.IMPERF-enter F-PL-shame OPP DET.PL there  
*i-bé/bad wán-en wal(a) i-n i-séstən-an*  
 PL-plastic.bag of-PL or 3p=GEN PL-question-PL  
*wal(a) i-n almujáqa-tan*  
 or 3p=GEN matter-PL  
 he shouldn't begin with these shameful things of the condoms, or their questions, or their matters.

In Songhay of Gao and Timbuktu this is the only disjunctive particle available and it exists also in Tamasheq.

#### 4.2 Uses of MAN morphemes

The following sections describe the uses of the Mood-Aspect-Negation (MAN) morphemes. The shapes and basic meanings are given in 3.1.4.2. All MAN morphemes are mutually exclusive, i.e. they cannot be combined. They are prefixed to the verb stem and are themselves preceded by a subject clitic.

Different from Mainstream Songhay languages where the subjunctive has a unique form for negation, Tadaksahak has only two forms in the negative. The negative perfective is opposed to the negative imperfective, that is also used in the negation of subjunctive and future clauses. An opposition of 'terminated' and 'not (yet) terminated' seems to be the distinction. Only from the context can it be decided whether the positive correlate would have a subjunctive, an imperfective or future MAN morpheme.

#### 4.2.1 Aspect: Perfective vs. Imperfective

The basic aspectual opposition is between perfective (unmarked) and imperfective IMPERF (*b- / f- / bə-*).

The imperfective aspect is used to convey habitual events (65), statements about general knowledge (66), and simultaneity of an event with a temporal reference point. When the reference point is the moment of utterance, the imperfective is used to indicate present time (67). In past tense narratives, the imperfective is used to express simultaneity to the (past) time reference set by the main event (e.g. “he was reading when she entered”) (68).

(65) *aya-bb-əgməm.*

1s=IMPERF-chew

I (habitually) chew (tobacco).

(66) *a-rgán a-b-ŋá bor-én.*

SG-camel 3s=IMPERF-eat person-PL

an/any adult male camel bites people.

(67) *bora fód(a) a-b-guŋ(ú) i-múŋas akkóz.*

person one 3s=IMPERF-lead PL-camels four

(only) one person leads four camels (while we talk).

(68) *a-ɣáɣar a-ǰjéw bor-én*

SG-bare.plain 3s=help person-PL

*s(a) i-b-wí éeqad.*

when 3p=IMPERF-kill bush.fire

the barren plain helped the people when they were putting out the bush fire.

The imperfective is obligatory with a subgroup of adjectival verbs that indicate durable quality. This group includes all color verbs and qualities of fur.

(69) a) *aya-n hinciní a-f-kooráy.*

1s=GEN goat 3s=IMPERF-be.white

my goat is white.

- b) *a-zóolay*      *a-b-fayár.*  
 SG-male.goat      3s=IMPERF-have.small.white.spots  
 (the) male goat has small white spots.

Some perception verbs ('hear' 'see') can take a complement in the IMPERF (4.3.10.2).

The perfective is used with foregrounded, simple sequential events in narratives (70). In the speech situation it indicates that the event is closed (71).

- (70) *U.*      *a-ffúur-a*  
 pro.name      3s=throw-3s  
*ay=n*      *kəmbəri*      *a-nə-yáʕad*      *áa=ka*  
 3s=GEN      spear      3s=NEG.PERF-go.straight      3s=loc  
*a-dd(á)*      *áa=k(a)*      *á-trif*      *ceen-án*  
 3s=make      3s=LOC      SG-wound      be.small-ADJZR  
 U. threw it, his spear did not reach it (lion) straight, it made it a small wound.

- (71) *ni-zzáy*      *bitígi ka.*  
 2s=steal      shop LOC  
 you have stolen from the shop.

#### 4.2.2 Mood: Indicative vs. Subjunctive m-

Subjunctive mood is semantically connected with intention, desire, planned events, i.e. with events which are not yet realized. It is not firmly attached to a time frame. It is often found in (subordinate) purpose clauses (see 4.8.2.1) and hypothetical acts as described in instructions (72). The subjunctive is used in orders in reported speech (73) and in order sequences (4.2.5).

- (72) *ni-m-diní*      *t-ə-bzaz*      *ni-m-d(á)*  
 2s=SUBJ-take      F-PL-seed.kind      2s=SUBJ-put  
*íi-ka*      *ary-én*      *ni-m-zí-llizit-i*  
 3p=LOC      water-PL      2s=SUBJ-CAUS-clean=3p  
*ni-m-káw-kat*      *íi-ka*      *tond-én.*  
 2s=SUBJ-take.out-VEN      3p=LOC      pebble-PL  
 you take the seeds, put them in water, clean them (by stirring the water) (and) take the pebbles out (from them).

The following sequence shows first a subjunctive encoding an order (bring) and then a purpose clause (may do).



- (73) *wiji hé faṛúur-an*  
 is.not thing be.important-ADJZR  
*maffín ni-m-záw ayáy t-áa-har-t ən*  
 but 2s=SUBJ-bring 1s F-SG-lion-F.SG GEN  
*huuwá aya-m-d(á)-an áa=k(a) alqurán*  
 milk 1s=SUBJ-do-ALL 3s=LOC Koran  
*ní=n aaru sé.*  
 2s=GEN man DAT  
 (Marabout said:) this is not difficult but bring me the milk  
 of a lioness so that I may do a spell for your husband in it.

The following instance has two possible readings: a second order or a purpose clause.

- (74) *səkálələf ní=nn aarú ni=mm-əḥkəm áa=ka!*  
 caress 2s=GEN man 2s=SUBJ-reign 3s=LOC  
 caress your husband (and you will/may) reign over him!

Blessings and good wishes for the future are also expressed with the subjunctive.

- (75) a) *Məssiínay a=mm-érəz ana*  
 God 3s=SUBJ-reward 2s.DAT  
 may God reward you.
- b) *a=m-sá-kkabar ándi se.*  
 3s=SUBJ-CAUS-succeed 2p DAT  
 may He make you(pl) succeed (in your project).

Some story tellers mark the peak in a narrative with subjunctive. This can be observed in the Text 1 (lines 80-83) in Appendix I.

#### 4.2.3 Future tə-

The future is used with events that follow the reference time. This is often the moment of speaking, but sometimes displaced into the past as in English expressed as 'would', 'was going to'. An instance of this is found in narratives, where habitual behavior is marked with FUT.

In answers to questions about events not yet realized, in a short or long time span, the future is normal.

- (76) a) *aɣ-tə-kó tɛffak*  
 1s=FUT-leave tomorrow  
 I will leave tomorrow.
- b) *a-tə-yée-kat yáarat ka.*  
 3s=FUT-return-VEN season.kind LOC  
 he will return in harvest season.

Habitual is marked with future in narratives, but the imperfective is used in habituals otherwise.

- (77) *íttill(a) alfájir a-tə-sákkədi*  
 each morning 3s=FUT-gather.food  
 Every morning she (mother Hyena) would gather food.
- a-tə-sákkədi har hé (a)ɣo a-tə-kuná-kat*  
 3s=FUT-gather.food until thing DET 3s=FUT-find-VEN  
 She gathered food and what she found
- a-tə-záw-kaat=a*  
 3s=FUT-bring-VEN=3s  
 she brought it
- a-m-fúr-an íi=se n i*  
 3s=SUBJ-throw-ALL 3p=DAT SEP 3p  
 (in order) to throw it to them (in the hole).

The future marker is very frequent in subordinate clauses after verbs that can take the complementizer *sa* COMP, indicating that the intended action is not yet terminated. Songhay of Gao uses SUBJ for this kind of construction (Heath 1999b:325ff).

- (78) *aɣa-bbáaya s(a) aɣ-tə-didá.*  
 1s-want COMP 1s=FUT-walk  
 I want to go.

The following example shows the subordinate clause after the COMP *sa* with the FUT marker. As the whole sequence is part of a series of instructions the following clauses are in SUBJ mood.

- (79) *hé (a)d-dúuwa sa*  
 thing 3s=be.better COMP  
*(ə)n=tə-hímay ní=n kambá*  
 2s=FUT-wash 2s=GEN hand  
*ni=m-zérrəzəm ní=n míya,*  
 2s=SUBJ-rinse 2s=GEN mouth  
*t-izzár-t ní=m-sənt(á) a-múnsu.*  
 before 2s=SUBJ-begin SG-meal  
 it is better that you wash your hand (and) rinse your  
 mouth before you begin to eat

The apodosis of many conditional clauses is marked with FUT.

- (80) a) *əs-kábahar árat-an í=yyíli alfájjir*  
 maybe-when herd-PL 3p=leave morning  
*a=tə-t-éləm.*  
 3s=FUT-PASS-open  
 when the herds left in the morning, it (gate) was opened.
- b) *əs-káhar ni=bb-əfřəd í=jjib-an á-yaatir*  
 maybe-when 2s=IMPERF-broom PL-grain.kind-PL SG-riverbed  
*ka t-á-blaq-q a=tə-yírti-kat ənd(a)=í.*  
 LOC F-SG-dust-F.SG 3s=FUT-mix-VEN with=3p  
 when you sweep grains together in a riverbed, dust gets  
 mixed with them.

#### 4.2.4 Negation: perfective nə- and elsewhere sə-

Positive perfective events are negated with the negative perfective.

- (81) a) *a=nə-kun(á) ay=n á-zřəf.*  
 3s=NEG.PERF-find 3s=GEN SG-silver  
 he didn't find his money.
- b) *hawú a=bbán a=nə-yíkřəř*  
 cow 3s=be.soft 3s=NEG.PERF-be.wild  
 cows are docile, they are not wild.

All other negated events are marked with *sə-* NEG.IMPERF.

- (82) a) *aγ-sə-báay=a*  
 1s=NEG.IMPERF-know=3s  
 I don't know it.
- b) *alfájir a-sé-kas zayrí n a-mənoókai.*  
 morning 3s=NEG.IMPERF-be day GEN SG-king  
 morning is not a day's ruler.
- c) *ar-sə-dáy-kat a-mánana báar(a) ary-én.*  
 1p=NEG.IMPERF-deal-VEN SG-fish be.in water-PL  
 we don't buy a pig in a poke (Lit: a fish that is in the water).
- d) *a-yáryar a-sə-ss-égməð.*  
 SG-dry.plain 3s=NEG.IMPERF-CAUS-sprout  
 a dry plain does not sprout (greenery).

The following negation is found in a purpose clause.

- (83) *yírzəm a-gádod sallánda*  
 attach SG-old.water.bag carefully  
*ay=n áyr-an í-sə-kós.*  
 3s=GEN rope-PL 3p=NEG.IMPERF-cut  
 attach the old water bag carefully so as not to cut its ropes.

Prohibitives show a remarkable mix of *sə-* with the imperative markers (see below 4.2.5.3).

A number of particles are used together with negation on the verb and when a 'negating' verb occurs. Find the discussion and examples under 4.6.

#### 4.2.5 Imperatives

Orders are normally marked by using the imperative form. One may note that similar functions can be covered by the subjunctive; in reported speech, imperatives are systematically substituted by SUBJ.

The positive imperative for a single addressee is the verb stem without any additional morpheme. In other cases, the imperative marker *ba ~ wa* IMP is used. This is the case in plural imperatives, where *ba ~ wa* IMP takes the place of the 2p clitic *andə-*. It is also the case in prohibitives and in third person injunctions, where the order

may be addressed to one or more persons. Note that it is impossible to use the marker *ba* ~ *wa* in positive singular imperatives.

*ba* and *wa* may be dialectal variants. *ba* is more frequent in texts from Talatayt, the most northern part of the area, and *wa* is found in texts from around Menaka in the southern part of the region. Examples:

- (84) a) *tunú!*  
get.up  
get up! (singular addressee)
- b) *ba tunú*  
IMP get.up  
get up! (plural addressee)
- c) *n(a) ayáy sa n a*  
give 1s DAT SEP 3s  
give it to me!
- d) *wa n(á) í=s(e) i=n karáy*  
IMP give 3p=DAT 3p=GEN ball  
give them their ball! (plural addressee)

Imperatives following each other are not grammatical with the exception of a few movement verbs (see below). Any second imperative in a following clause is marked with a second person subjunctive. A subjunctive will also allow a reading as purpose clause, i.e. 'in order to'. Consider the following two examples where this reading would result in the following translations: 'Give them to me (in order) to marry me.' and 'Go to that other (one) to make him rest.' For the first example (a) an interpretation as a purpose clause is not possible considering the course of the narrative before this exchange. For the second example no absolute indications are given to exclude a reading as a purpose clause.

- (85) a) *n(á) ayáy se n i ni=m-zaw ayáy.*  
give 1s DAT SEP 3p 2s=SUBJ-marry 1s  
give them to me and marry me!

- b) *kóy ná ayo ni-m-s-ənf(u) áa-se*  
 leave OPP DET 2s-SUBJ-CAUS-be.at.rest 3s-DAT  
 go to that other (one) and make him rest (or: in order to  
 make him rest)

Following a few movement verbs like *kóy* 'leave', *tunú* 'get up', *yéw* 'come' and *zurú* 'run', a second imperative form is allowed when no other than imperative marking constituents intervene.

- (86) a) *zurú yíbə(t)-kaat-a*  
 run snatch-VEN-3s  
 run and snatch it (to here)!
- b) *ba tunú ba nám-aŋɣ(a)ənda bəkáw-yan*  
 IMP get.up IMP RECI-kill with jinn-PL  
 get up (pl) and fight (pl) with the jinns!

Some verb roots only occur as imperatives:

- (87) *Suppletive imperatives*
- | imperative    | gloss      | inflected root |
|---------------|------------|----------------|
| <i>yéw!</i>   | come!      | <i>kóy-kat</i> |
| <i>ahún!</i>  | hold (it)! | <i>yíddər</i>  |
| <i>əndə!</i>  | pass (it)! | <i>yíci</i>    |
| <i>əndén!</i> | pass (it)! | <i>yíci</i>    |

The first imperative is from Tamasheq. The next form is connected to Songhay of Gao /hũũ!/ 'here, take!' *əndə* / *əndén* could be related with *ənda* 'in the direction of'. *əndə* is used in situations where the giver and taker are in close reach and need not move themselves to pass on the object in question. *əndén* expects the addressee to get up to get the item.

#### 4.2.5.1 Injunction

Third person injunctions are given in the following examples. With a simple pronoun clitic present, the subjunctive mood is understood as an injunction (a). When a subject is present as a noun, the imperative particle precedes the noun that is followed by a verb inflected in the perfective (b). In this construction, *ba ~ wa* IMP may be followed by an NP in the singular or in the plural.

- (88) a) *a=m-ko ay=n á-ffayal*  
 3s=SUBJ-leave 3s=GEN SG-work  
 that he leave for his work.
- b) *wa báarar a=húuru húgu.*  
 IMP child 3s=enter house  
 that the child enter the house!

#### 4.2.5.2 Hortative

It is possible to utter an order addressed to a number of people including the speaker, similar to 'let's go!' in English. In his grammar of Tamasheq, Heath describes a special morpheme for 'hortative' and an 'alternative 1PI hortative construction' (Heath 2005:323). Tadasahak has no particular hortative morpheme but it has a hortative construction that shows similar components as the alternative form in Tamasheq. An uninflected verb is followed by the 1p dative pronoun (DAT *se* is omitted when no pronominalized constituent follows). The IMP particle preceding the verb indicates the number of addressees without counting the speaker. With IMP, the addressees are more than one person, without it, a single person is addressed.

- (89) a) *wa kó-(a)n áari (se n a)*  
 IMP leave-ALL 1p (DAT SEP 3s)  
 let's go (to it)! (several persons + speaker)
- b) *fiikəl áari!*  
 travel 1p  
 let's travel! (one person + speaker)

#### 4.2.5.3 Prohibitive

The prohibitive (negative imperative) is normally expressed with the *ba ~ wa* IMP particle followed by an inflected verb with NEG.IMPERF *sə-*. This construction is used for all kinds of orders, including hortatives.

The particle *ba ~ wa* is used with singular and plural person marking on the inflected verb.

#### Prohibitives

- (90) a) *ba (ə)n-sə-hurrú sa...*  
 IMP 2S=NEG.IMPERF-look.for COMP  
 don't try to...
- b) *b(a) a-sə-ſiggid sa...*  
 IMP 3S=NEG.IMPERF-wait COMP  
 s/he may/should not wait that...
- c) *...w(a) ar-sə-dá(=a) zaróoda*  
 IMP 1p=NEG.IMPERF-do(=3s) today  
 (the kind of returning we did yesterday), don't let us do it today!
- d) *w(a) andə-sə-gor andə-f-c(i) ayáy*  
 IMP 2p=NEG.IMPERF-must 2p=IMPERF-say 1s  
*mán ay(o) óoda.*  
 name DET DEM.NEAR  
 you should not say this name to me!

When a subject is present as a noun / NP, the imperative particle precedes.

- (91) a) *b(a) aya-n t-a-ŋgud a-sə-yili húgu ka*  
 IMP 1S=GEN F-SG-girl 3S=NEG.IMPERF-leave house LOC  
 that my girl not leave the house!
- b) *w(a) ágg áadəm a-sə-dóos-i*  
 IMP son.of Adam 3S=NEG.IMPERF-touch=3p  
 that nobody touches them!
- c) *ba bárr-en i-sə-húuru-kat*  
 IMP child-PL 3p=NEG.IMPERF-enter-VEN  
 that the children not enter.

### 4.3 Argument structure

In the following sections verb types will be presented. We distinguish between 'unmarked complement' without any postposition, 'dative complement' with the dative marker *se* DAT, and 'adpositional complement' with the postpositions *ka*, *be*, *daw*, all with a locational meaning.



### 4.3.1 Intransitives

Underived intransitive verbs include a subgroup of motion verbs (examples under (92)), verbs of position (93) used as active verbs or in a descriptive way as stative verbs. Some experienced states like 'I am hungry' are expressed with stative verbs (94) while others are not, and need to be expressed as in 'thirst found me' (95). Many functions of the body are expressed with intransitive verbs (96).

- (92) a) *a-b-didá [tárra ka].*  
 3s-IMPERF-walk bush LOC  
 he walks in the bush/deserted location
- b) *a-mméttəkwi [néeda ka].*  
 3s-move.on here LOC  
 he moved on from here
- c) *a-yyíjif [a-yázar ka].*  
 3s-swim SG-pond LOC  
 he swam in the pond
- (93) a) *a-b-gorá [gánda ka].*  
 3s-IMPERF-sit ground LOC  
 he sits on the ground
- b) *a-yyíniftaga[gánda ka].*  
 3s-lie.on.side ground LOC  
 he lay on his side on the ground
- c) *arw-én i-b-zayáy.*  
 man-PL 3p-IMPERF-lay.on.back  
 (the) men are lying on their backs
- (94) a) *aγa-bb-églək.*  
 1s-IMPERF-be.hungry  
 I am hungry
- b) *aγa-yyidáz.*  
 1s-be.tired  
 I am tired

- (95) a) *fád a-kkun(a) aǵáy.*  
 thirst 3s=find 1s  
 I am thirsty
- b) *t-í-ysas i-kkun(a) aǵáy.*  
 F-PL-shiver 3p=find 1s  
 I am shivering
- (96) a) *a=f-tíffít.*  
 3s=IMPERF-cough  
 he coughs
- b) *báarar a=f-tínzít.*  
 child 3s=IMPERF-sneeze  
 the/a child sneezes
- c) *a=wwínzir.*  
 3s=bleed.nose  
 she bled from the nose

#### 4.3.2 Labile verbs

There are quite a number of verbs that can describe a state, but can also be used in an active sense of achieving the state described. These will be called labile verbs. There are about 150 verbs of this type in our corpus. The majority is of Songhay origin (listed under (99)) but there are also some verbs which have Tamasheq cognates (see (100)).

Labile verb of Songhay origin

- (97) a) *ay=n t-a-rásway-t a-bə-bíibi.*  
 3s=GEN F-SG-dress-F.SG 3s=IMPERF-be.black  
 his/her dress is black.
- b) *wayní a-bə-bíibi bor-én.*  
 sun 3s=IMPERF-blacken person-PL  
 the sun makes people black. (=gives people a dark tan)

Labile verb of Tamasheq origin

- (98) a) *farc-én i-bb-éssay*  
 donkey-PL 3p=IMPERF-tie.two  
 the donkeys are tied together.
- b) *a-bb-éssay áy=n farc-én.*  
 3s=IMPERF-tie.two 3s=GEN donkey-PL  
 she ties her donkeys together.

This double valency of basic verbs seems to be quite different from Mainstream Songhay. Many of the verbs that need a causative morpheme in Mainstream Songhay have both an intransitive and a transitive use in Tadakshak – actually most descriptive verbs of Songhay origin have this behavior (see 3.1.3.1 and list in Appendix II).

(99) *Songhay cognates*

verb	intransitive gloss	transitive gloss
<i>kukú</i>	to be long	to make long
<i>babó</i>	to be many	to increase
<i>zén</i>	to be old	to make old
<i>ceená</i>	to be small	to make small
<i>bán</i>	to be soft	to soften
<i>fér</i>	to be opened	to open
<i>dudú</i>	to flow	to pour
<i>hínjin</i>	to be repaired	to repair
<i>kunkún</i>	to be rolled up (mat)	to roll up (mat)

(100) *Tamasheq cognates*

verb	intransitive gloss	transitive gloss
<i>yídray</i>	to be decorated with metal	to decorate with metal
<i>yíyfid</i>	to be out of use / destroyed	to destroy
<i>yíyfel</i>	to be locked	to lock
<i>yíləm</i>	to be open	to open
<i>yílkəḍ</i>	to be braided	to braid

<i>yíssay</i>	to be tied two together	to tie two together
<i>yíṣbər</i>	to be spread out (to dry)	to spread out (to dry)
<i>díydi</i>	to be level	to level sth.
<i>ḍəṇay</i>	to be filled	to fill (narrow opening)
<i>yiská</i>	to be combed	to comb
<i>yíymá</i>	to be colored (leather)	to color (leather)
<i>yilzá</i>	to be shaved	to shave
<i>yinkáḍ</i>	to be circumcised	to circumcise
<i>jeejí</i>	to hang on side	to attach (to side)

#### 4.3.3 Transitive only (underived)

The group of transitive only verbs includes verbs of production ('make', but not 'repair' or 'arrange'), and verbs of physical impact ('hit', but not 'cut' or 'break'). The following list gives examples of transitive verbs that have no intransitive use. The etymology is given using Timbuktu Songhay (S) and Tuareg tawəlləmmət (T) examples.

(101) *Transitive only verbs*

verb	gloss	etymology
<i>diní</i>	to take sth.	S: <i>din</i>
<i>kár</i>	to hit sb/sth.	S: <i>kar</i>
<i>gôn</i>	to swallow sth.	S: <i>goon</i>
<i>ḍarór</i>	to need sth.	T: <i>dǎřǎř</i>
<i>déeraw</i>	to have sth. in common	T: <i>ədrəw</i>
<i>ḍáləm</i>	to treat sb. wrongly / accuse unjustly	T: <i>əḍləm</i>
<i>fəlás</i>	to believe sth.	T: <i>əfləs</i>
<i>hóorat</i>	to follow sb. (by his footprints)	
<i>darjéd</i>	to chase after sth./sb.	

A number of movement and location verbs take a direct object to express the location, i.e., a semantically locational element that is not marked with the appropriate postposition *ka* 'to, in, from'. Examples:

- (102) a) *a-húuru hugu.*  
 3s-enter house  
 s/he entered the house.
- b) *a-ṭṭaaw-a*  
 3s-reach-3s  
 s/he reached it (town).

The direct object of such verbs need not be a location like 'market' or 'town'. Other semantically less locative complements, can be found, e.g. 'cows', 'name-giving ceremony', 'work' and 'spirit'.

(103) *Movement verbs with direct object complement.*

syntax	gloss	Etymology
<i>kóy X</i>	go to X	S
<i>húuru X</i>	enter X	S
<i>hunú X</i>	depart from X	S
<i>şót X</i>	jump over X	S
<i>ṭaw X</i>	reach X	S
<i>hanǵá X</i>	pass by/over X	S
<i>yéd X</i>	return to X	S
<i>yímmər X</i>	pass by X	T
<i>yíṭṭən X</i>	climb X	T
<i>yíşkən X</i>	stretch up in X	T
<i>ṭérṭər X</i>	go along X	T
<i>háll-ət X</i>	climb X	T

The verbs listed below are not movement verbs, yet all have ‘location’ as part of their semantics, they all designate ‘to be somewhere’.

(104) *Locational verbs with a direct object complement*

syntax	gloss	Etymology
<i>báara X</i>	be in X	S
<i>keedí X</i>	be up on X	S
<i>yíŋgər X</i>	be behind X	T
<i>yígdəl X</i>	be under X	T
<i>yízday X</i>	live in X	T

With other verbs, movement and location are expressed by an adpositional complement, e.g. *X zurú [Y ka]* ‘X ran in Y’ and *X keení [Y ka]* ‘X lie on Y’.

In Mainstream Songhay movement verbs always have a postpositional complement marked with the locative postposition /la ~ ra/.

In his grammar of Tamasheq, Heath mentions a number of movement and location verbs (‘go to’, ‘leave, go from’, ‘be on sth.’, ‘be in’, ‘exist’, ‘lose’) that take direct objects. Some of them correspond with verbs also found with this feature in Tadaksahak. Apparently, for this syntactical characteristic, Tadaksahak copies Tamasheq.

#### 4.3.3.1 *Verbs taking a verbal noun complement*

A large number of verbs take a verbal noun as their complement. Verbs of duration as well as verbs of cognition, manipulation and ability are found in this group. An additional oblique complement can be present. Verbal nouns easily take possessors to refer to the referent on which the action is to be performed. Consider the examples.

‘begin’ *s-əntá*

(105)	<i>əs-káhar</i>	<i>a=ss-ənt(á)</i>	<i>áa=ka</i>	<i>nín...</i>
	maybe-when	3s=CAUS-begin.BND	3s=LOC	drink.VN
	when he (lion) began to drink from it...			

‘enter into’ *huurú* is interpreted as ‘begin’ when followed by an abstract noun.

(106) *a=húur(u) á-ffayal.*  
 3s-go.into SG-work  
 he began to work.

'be at the point of' *yabúk*

(107) *ə̀s-kár a=yyabúk arə=n kár...*  
 maybe-when 3s-be.at.point.of 1p=GEN hit.VN  
 when he is at the point of hitting us....

So far only *yabúk* 'be at the point of (doing)' has been found with a verbal noun complement marked with dative. Compare the examples below with (107) above, where the same matrix verb has a verbal noun complement from an action verb and then does not mark it with dative *se*.

(108) a) *i=yyabúk bun sé.*  
 3p-be.at.point.of die.VN DAT  
 they were at the point of dying.

b) *a=yyabúk hay sé.*  
 3s-be.at.point.of give.birth.VN DAT  
 she (female camel) was at the point of giving birth.

'be close to' *mán*

(109) *hawú a=mmán háy*  
 cow 3s-be.close give.birth.VN  
 the cow is close to giving birth.

'learn' *yílməd*

(110) *a=yyílməd didá.*  
 3s-learn walk.VN  
 he learned to walk.

'be able to' *də̀bət*

- (111) *a-ddábət ay=n gôn*  
 3s-be.able 3s=GEN swallow.VN  
 he is able to swallow it.

'know' *báy*

- (112) a) *báarar a-sə-báy á-bbaş ceddí.*  
 child 3s=NEG.IMPERF-know SG-chew yet  
 the child cannot yet chew.

- b) *a-bbáy t-óo-ruf-t ən z-ézəl.*  
 3s-know F-SG-car-F.SG GEN CAUS-run.BND.VN  
 she knows how to drive a car / she can drive a car.

'want, love' *báaya*

The verb 'want' *báaya* has a different stem in the negation, *kúl*. It is only attested with NEG.IMPERF. The verbal noun can be fronted for focus just as any other nominal complement of a verb.

- (113) a) *didá aya-bbáaya.*  
 walk.VN 1s=want  
 leaving [focus] is what I want.

- b) *ay-sə-kúl ay=n m-éffaş-at*  
 1s=NEG.IMPERF-want 3s=GEN RECI-disturb.VN  
 I don't want to disturb him.

'look for, seek, want' *hurrú*

- (114) *ayáy dabés aya-b-hurrú*  
 1s.EMP raise.VN 1s=IMPERF-look.for  
 as for me, it's an increase (in price) that I seek.

'regret' *m-égrəz*

- (115) *aya-mm-égrəz didá.*  
 1s=RECI-regret walk.VN  
 I regret leaving.

'intend' *yíyəl*

The verb 'have the intention to (do)' *yíyəl* is always used when the action didn't materialize. An explanatory second clause is expected beginning with 'but'.



- (116) *aɣa=yyíɣəl* *Mənəka* *n* *kó* *bí*  
 1s-intend name.LOC GEN go.VN yesterday  
*məffín* *cinjí* *a=ggang(á)* *aɣáy* *didá*.  
 but rain 3s-hinder 1s walk.VN  
 I intended to go to Menaka yesterday but rain kept me  
 from leaving.

‘hinder’ *gangá*

This verb of manipulation takes a dative complement for the entity that is manipulated. In example (116) above the first person pronoun is not marked for the dative because a nominal complement is present (3.2.7.11.2.1).

‘try’ *yírəm*

In the example below the verbal noun ‘walking’ *didá* is modified by the possessor construction ‘of vanity’ to express ‘show off with nice clothes’.

- (117) *kələ* *a=nə-yírəm* *did(á)* *i-bárag-an wáni...*  
 ever 3s-NEG.PERF-try walk.VN PL-vaunt-PL of  
 he had never tried to show off with his clothes...

‘refuse’ *wánjin*

This verb of manipulation marks the person manipulated with the dative (c).

- (118) a) *a=wwánjin* *ɲá*  
 3s-refuse eat.VN  
 he refused to eat.
- b) *a=wwánjin* *ay=n* *diní*.  
 3s-refuse 3s-GEN take.VN  
 she refused to take it.
- c) *a=wwánjin* *áa=se* *didá*  
 3s-refuse 3s-DAT walk.VN  
 he didn’t allow him (= refused him) to leave.

‘ought to’ *máy-ənda*‘

This verb is composed of ‘have’, *máy*, and the fused preposition *ənda* ‘with’. A nominal complement as well as a *sa* clause are possible. It is also found in the negative ‘ought not to’.

- (119) a) *nín nə-máy-ənd(a) ay=n t-á-ggas-t*  
 2s.EMP FOC-have-with 3s=GEN F-SG-take.care-F.SG  
 it’s you who ought to take care of it (land).
- b) *surgóy a-sə-may-ənda*  
 woman 3s=NEG.IMPERF-have-with
- s(a) a-tə-d(á) ay=n áaru sé hé yibrár-an.*  
 COMP 3s=FUT-do 3s=GEN man DAT thing be.bad-ADJZR  
 a woman ought not to do anything bad to her husband.

The verbal noun complements can be pronominalized for all verbs in the examples above.

Two verbs that intensify or qualify an action are found with this construction. The complement is the verbal noun of the action or of the state qualified. These verbal noun complements cannot be pronominalized.

‘do/be very much’ *s-ínnihil*

The first examples (a-c) illustrate *s-ínnihil* with stative verbs while the next two (d-e) are with action verbs and (f) shows a construction that is the intensified version of *álham a-húur(u) ayáy* (anger 3s=enter.into 1s) ‘I am angry.’

Examples with *s-ínnihil* ‘do/be very much’

- (120) a) *t-a-záyan-t s-ínnihil kukú*  
 F-SG-mast-F.SG CAUS-be.much be.long.VN  
 a very long mast (Lit: a mast that is very long)
- b) *i-b-s-ínnihil t-úu-la-t.*  
 3p=IMPERF-CAUS-be.much F-SG-look.alike-F.SG  
 they look very much alike.
- c) *i-nə-s-ínnihil yáy ceddí*  
 3p=NEG.PERF-CAUS-do.much be.cool.VN yet  
 it (water) is not very cool yet.
- d) *aya-ss-ínnihil áa-se a-búbbugu*  
 1s=CAUS-do.much 3s=DAT SG-burn.off  
 I burned it (sheep head’s hair) off very well.

- e) *bárr-en andə-m-s-ínnihil t-á-nzi-t*  
 child-PL 2p=SUBJ-CAUS-do.much F-SG-leave.early-F.SG  
*téffak á-ffayal se*  
 tomorrow SG-work DAT  
 children, you should leave very early tomorrow morning  
 for work.
- f) *álham a-ss-ínnihil ayáy húuru.*  
 anger 3s=CAUS-be.much 1s enter.VN  
 I was very angry.

'do/be very much' *hínjin*

Among the following examples, remark that (d) intensifies the idiom *hé (a)-kkun(á)-a* (thing 3s=find=3s) 'he is ill.' Example (f) exposes some additional syntactic intricacies. The verb *z-álləzləz*, 'shake', is used in a nominal form complementing *hínjin*. The reflexive phrase takes the slot of the indirect object that is marked with DAT.

- (121) a) *har intáynawt a=hínjin t-ée-wan-t.*  
 until jackal 3s=be.much F-SG-be.fed-F.SG  
 until Jackal had eaten very well.
- b) *har a=hínjin áa-k(a) a-ṇágaḍ*  
 until 3s=be.much 3s=LOC SG-be.turbaned  
 until he was very well turbaned in it (kind of turban).
- c) *ay-n a-másli a=hínjin áa-se gérraz-at.*  
 3s=GEN SG-voice 3s=do.much 3s=DAT please.VN  
 his voice pleased her very much.
- d) *zamá éelaw hé (a)=hínjin áa-se kuná...*  
 after elephant thing 3s=do.much 3s=DAT find.VN  
 after Elephant is very ill...
- e) *s(a) aya-hínjin báaya.*  
 COMP 1s=do.much want.VN  
 that I want very much.

- f) *a-nyíl*      *a-tə-hínjin*      *ay=n*      *gá*    *se*  
 SG-ostrich    3<sub>S</sub>=FUT-do.much    3<sub>S</sub>=GEN      self    DAT  
*a-z-ələzləz*      *t-a-ʒáyin-t*      *be*  
 SG-CAUS-shake    F-SG-jujube.tree-F.SG    LOC  
 Ostrich was shaking himself very much up in the jujube tree.

An alternative to this intensification is the adverb *húllən* ‘much’ that can be added to the verbal word.

#### 4.3.4 Verbs with obligatory adpositional complement

A small number of verbs obligatorily take an adpositional complement that expresses a location.

An example of a verb that always takes a complement with a locative postposition is ‘to look down on’.

- (122) *a=b-júgu*                      *ay=n*                      *a-kátab*    *ka.*  
 3<sub>S</sub>=IMPERF-look.down    3<sub>S</sub>=GEN                      SG-writing    LOC  
 he looks down on his writing.

Some verbs take a different meaning with an adpositional complement.

- (123) *Verbs with different interpretation*
- |               |                     |                    |                       |
|---------------|---------------------|--------------------|-----------------------|
| verb          | gloss               | verb + LOC         | gloss                 |
| <i>káy</i>    | to stop             | <i>káy X ka</i>    | to trample            |
|               |                     | <i>káy X be</i>    | to withhold           |
| <i>fúl-ət</i> | to reinforce (well) | <i>fúl-ət X be</i> | to support X (person) |

#### 4.3.5 Verbs with dative complement (se)

Some verbs have an obligatory dative complement without an unmarked complement. Some examples are:

- (124) *Verbs with dative complement*
- |                    |                 |
|--------------------|-----------------|
| syntax             | gloss           |
| <i>yilkám X se</i> | follow sb.      |
| <i>yímmay X se</i> | search for sth. |
| <i>góoday X se</i> | thank (God)     |

<i>mo X se</i>	hear sth.
<i>f-íffim X se</i>	listen to sth.
<i>f-íggid X se</i>	wait for sb./sth.

Some verbs can be used with and without a dative complement. This may considerably change their interpretation.

(125) *Verb with different interpretation*

verb	gloss	syntax	gloss
<i>yíræz</i>	be let down	<i>yíræz X se</i>	(God) bless X

Verb stems that contain a causative mark pronominalized human causees as a dative complement.

(126) a) *a=íffí-híffil*      *áa=se hawru*      *n*      *bén*  
 3s=CAUS-oblige      3s=DAT meal      GEN      finish.VN  
 she made him finish the meal.

b) *a=ss-ágmi*      *áa=s(e)*      *a-mámel*  
 3s=CAUS-look.for.BND      3s=DAT      SG-burning.coal  
 he sent him for a burning coal.

Examples of non-human pronominalized complements and other details on the causative construction are found under 4.3.7.

#### 4.3.6 *Verbs with instrumental-comitative complement (enda)*

The instrumental-comitative preposition *enda* appears with two semantically different kinds of verbs. There is one class of verbs that has either an instrumental-comitative complement or is used without a complement. In the latter case, these verbs are interpreted as reciprocals.

(127) *Reciprocal verbs*

verb	gloss	syntax	gloss
------	-------	--------	-------

<i>hanǵá</i>	pass	<i>hanǵ(á) ənda X</i>	accompany X
<i>sáawa</i>	look alike	<i>sáaw(a) ənda X</i>	look like X
<i>m-éqqəs</i>	meet	<i>m-éqqəs ənda X</i>	meet X
<i>s-əgdá</i>	be equal	<i>s-əgd(á) ənda X</i>	equal X
<i>zəláy</i>	be different	<i>zəláy ənda X</i>	be different from X

As a complement of certain movement verbs, *ənda* serves as a directional preposition and can then be translated with ‘in the direction of’. (See 3.2.7.8)

A special case is the verb *dá* ‘make’ with an *ənda*-complement. The direct object is maintained and the complement encodes the outcome of the action: ‘to make sb./sth. towards/into something else’ is expressed as *dá X (ə)nda Y* ‘make X into Y’. This may be semantically connected to the directional meaning of *ənda*.

#### 4.3.7 Verbs with two complements

Some verbs can take both an unmarked and a dative complement. The list below shows the syntax of such verbs. When both complements are present, whether nominal or pronominal, one is marked with *se* as the dative complement and one is unmarked. The verbs are underived with the exception of ‘show’ that has a causative prefix. The two examples below show that the complement order is not rigidly fixed when the complements are nominal.

- (128) a) *a-nn(á) ay=n t-ə-sésira alfáqi se.*  
 3s-give 3s-GEN F-PL-key teacher DAT  
 she gave its keys (of the crate) to the teacher.
- b) *i-dúulin i-nná t-á-ŋgud ən naná se*  
 PL-in.law 3p-give F-SG-girl GEN mother DAT  
*i-gíitan.*  
 PL-gift.kind  
 the in-law family gave skins to the mother of the bride.

#### (129) Verbs with two complements

verb	gloss	syntax	gloss
<i>ná</i>	give	<i>na X [Y se]</i>	give X to Y
<i>záw</i>	take	<i>zaw X [Y se]</i>	take X to Y

<i>hár</i>	tell	<i>har X [Y se]</i>	tell X to Y
<i>dá</i>	do	<i>da X [Y se]</i>	do X to Y
<i>cí</i>	say	<i>ci [Y se] "..."</i>	say to Y "..."
<i>gangá</i>	keep from	<i>gangá X [Y se]</i>	keep X from Y
<i>s-ékən</i>	show	<i>s-ékən X [Y se]</i>	show X to Y

Verbs with a causative often have two complements, one of which is marked by the dative, i.e., the human causee, the entity with an assumed will, e.g., *a-b-sé-mməllət Fáti s(e) ay=n báarar*. (3s=IMPERF-CAUS-kiss F. DAT 3s=GEN child) 'He makes Fati kiss her baby.'

In a sentence like 'She made the taxi bring the children to her aunt.' the taxi has no will and can therefore not be marked with the dative. Animals fall in the same category. They are not considered to have a will of their own. Above sentence is rendered as *a-ss-əglá barrén táksi ka ənd(a) ay=n nana céena*. (3s=CAUS-go.BND child-PL taxi LOC with 3s=GEN mother small) 'She sent the children in a taxi to her aunt.'

#### 4.3.8 Verbs taking two unmarked complements

This group of verbs consists of stems with a causative morpheme. Semantically they are all movement related. They can have two unmarked complements, one that expresses a location and one a causee/item that is acted upon. In a typical causative construction this role is marked as a dative complement, see (126) and examples above. The complements are both unmarked as long as they are present in nominal form. When one complement is pronominalized, the appropriate postposition appears.

When no humans are involved, the pronominalized location gets marked as the dative (benefactor) and the causee takes the place of an unmarked patient.

- (130) a) *a-ʃʃ-éwər*                      *éé-ɣar*                      *i-kád-en*  
 3s-CAUS-put.on.BND                      SG-pot                      PL-fireplace-PL  
 she put the pot on the fireplace.
- b) *a-ʃʃ-éwər*                      *íi-s(e)*                      *éé-ɣar*  
 3s-CAUS-put.on.BND                      3p=DAT                      SG-pot  
 she put the pot on it.
- c) *a-ʃʃ-éwər=a*                      *i-kád-en*  
 3s-CAUS-put.on.BND=3s                      PL-fireplace-PL  
 she put it on the fireplace.
- (131) a) *a-b-s-éləl*                      *kuur-én*                      *gánda*  
 3s=IMPERF-CAUS-follow                      skin-PL                      earth  
 he puts a fine coat of earth on the skins. (Lit: he makes the earth follow the skins.)
- b) *a-b-s-éləl*                      *íi-se*                      *gánda*  
 3s=IMPERF-CAUS-follow                      3p=DAT                      earth  
 he puts a fine coat of earth on them.
- c) *a-b-s-éləl=a*                      *kuur-én*  
 3s=IMPERF-CAUS-follow=3s skin-PL  
 he puts it on the skins.
- d) *a-b-s-éləl*                      *íi-se*                      *n*                      *a*  
 3s=IMPERF-CAUS-follow                      3p=DAT                      SEP                      3s  
 he puts it on them.



When humans are involved the location remains unmarked and the pronominalized human causee is marked with the dative. (see above).

- (132) a) *a-ss-éwəŋ*                      *bárr-en*      *farká*  
 3s-CAUS-mount.BND      child-PL      donkey  
 she made the children mount the donkey.
- b) *a-ss-éwəŋ*                      *íi-se*              *farká*  
 3s-CAUS-mount.BND      3p-DAT      donkey  
 she made them mount the donkey.
- c) *a-ss-éwəŋ-a*                      *bárr-en*  
 3s-CAUS-mount.BND      child-PL  
 she made the children mount it.
- d) *a-ss-éwəŋ*                      *íi-se*              *n*      *a*  
 3s-CAUS-mount.BND      3p-DAT      SEP      3S  
 she made them mount it.

(133) *Verbs with two unmarked nominal complements*

<i>š-éwər</i>	to put on
<i>s-éləl</i>	to put finely on
<i>s-éwəŋ</i>	to make mount
<i>f-ínək</i>	to make mount
<i>s-íci</i>	to make go past
<i>š-érəš</i>	to make ford
<i>s-éss-əgəd</i>	to make jump over
<i>s-əŋgər</i>	to put behind
<i>sá-nnahal</i>	to make reach straight

In contrast, the verb 'make enter' marks the location with the appropriate adposition *ka*.

- (134) *aɣa-zz-úguz a-ʃignaw a-ná-zmay ən fún ka.*  
 1s=CAUS-enter.BND SG-thread SG-ACT-sew GEN hole LOC  
 I threaded the thread in the hole of the needle.

The verb ‘to prefer’ *yasáf* has no causative marker but behaves like the verbs described above when it occurs with nominal complements. Two nouns follow the verb to express preference of the one item over the other. The item immediately following the verb is the preferred one while the second unmarked noun encodes the less liked item.

- (135) *aɣa-yyasáf fufú t-aa-dás-t*  
 1s-prefer cold.VN F-SG-mosquito-F.SG  
 I prefer the cold (season) to mosquitoes (in hot season).

‘prefer’ can take a complement clause when preference of actions needs to be expressed (see (158))

#### 4.3.9 Reflexive constructions

There is no particular reflexive pronoun but overt reflexives are expressed by a noun phrase with an expression for ‘self’.

##### 4.3.9.1 Reflexive constructions

Tadaksahak has a reflexive construction, using the noun *ga* (plural: *j-en*), which is only used in this construction, determined by a pronominal genitival construction.

- (136) a) *a-háw [ay=n gá].*  
 3s<sub>1</sub>=attach 3s<sub>1</sub>=GEN self  
 s/he attached her/himself.
- b) *i-háw [i=n j-én].*  
 3p<sub>1</sub>=attach 3p<sub>1</sub>=GEN self-PL  
 they attached themselves.
- c) *aɣa-háw [aɣa=n gá] [(ə)nda karfú].*  
 1s=attach 1s=GEN self with rope  
 I attached myself with a rope.

The reflexive noun phrase is attested with postpositions, particularly with *se* DAT ‘for’

- (137) a) *a=mm-égəz ay=n gá se*  
 3s<sub>i</sub>=SUBJ-keep 3s<sub>i</sub>=GEN self DAT  
*wiji borá fó se*  
 is.not person IND DAT  
 may he look after (it [land]) for himself, not for someone else.
- b) *ay=n gá se a=kkúuɖ=a*  
 3s<sub>i</sub>=GEN self DAT 3s<sub>i</sub>=tend.flock=3s  
 it's for his own (benefit) he tends it (flock).
- c) *ʃ-ə-kmát-in hiŋká andə-ddá andə-n j-én se*  
 F-SG-harm-PL two 2p<sub>i</sub>=do 2p<sub>i</sub>=GEN self-PL DAT  
 it's two bad things you(pl) did to yourselves.

The reflexive construction is also found in genitive constructions. This is mainly used for underlining, rather than for an expression of reflexiveness.

- (138) a) *i-ddá i-n j-én ən didá*  
 3p=do 3p=GEN self-PL GEN walk.VN  
 they went about their own business.  
 (lit: they did walking of their own.)
- b) *i=kkun(á) i-n j-én ən alístaylal*  
 3p=find 3p=GEN self-PL GEN freedom  
 they got their own independence.

When the noun phrase with *ga* is preceded by the preposition *ənd(a)*, it emphasizes the noun it refers to.

Some examples.

- (139) a) *surgóy ənd(a) ay=n gá*  
 woman with 3s=GEN self  
*a=húuru ássunduq adí*  
 3s-enter crate ANA  
 the woman herself entered in the crate.

- b) *ayá=n babá (ə)nd(a) ay=n gá*  
 1s=GEN father with 3s=GEN self  
*a-sə-yíkti=a.*  
 3s=NEG.IMPERF-remember=3s  
 my father himself does not remember it.  
 = not even my father remembers it.
- c) *..s(a) áari (ə)nd(a) arə=n j-én*  
 COMP 1p.EMP with 1p=GEN self-PL  
*arə=m-káy....*  
 1p=SUBJ-stop  
 ...that we ourselves, we stop...
- d) *...t-órf-in n kó-(e)n ənd(a) i-n j-én*  
 F-car-PL GEN owner-PL with 3p=GEN self-PL  
*i-yyílmən áa=ka*  
 3p-guarantee 3s=LOC  
 the car owners themselves guarantee it.
- e) *...ayáy (ə)nd(a) ayá=n gá ayá=yyahór*  
 1s.EMP with 1s=GEN self 1s=be.worth  
*t-a-féngəl-t.*  
 F-SG-make.up-F.SG  
 ...(but) really, I myself, I am worth (more than) makeup.

The word *ga* (glossed here as ‘self’) is a cognate of the KCH word for ‘(living) body, organism’ /gaa/ (Heath 1998c:96). The construction is more akin to Tamasheq, where reflexives are formed with /iṃan/ ‘soul, life’ and the corresponding possessive suffix (Heath 2006:708), than to KCH, which has 3<sup>rd</sup> person reflexive pronouns (Heath 1999a:331ff.)

#### 4.3.9.2 Reflexive verbs

Some verbs may denote a reflexive event when used without an overt direct object. A typical case is ‘wash’.

- (140) a) *t-á-ŋgud a-hímay tuw-yén.*  
 F-SG-girl 3s=wash eating.bowl-PL  
 a/the girl washed the bowls.
- b) *t-a-ŋgud a-hímay.*  
 F-SG-girl 3s=wash  
 a/the girl washed herself.

Similar (but less commonly used in reflexive contexts) is ‘burn’.

- (141) a) *danjí a-kkurú-kuru ayáy.*  
 charcoal 3s=burn-DUP 1s  
 a/the charcoal burnt me.
- b) *aya-kkurú-kuru.*  
 3s=burn-DUP  
 I burnt myself.

#### 4.3.10 Verbs with a Clausal Complement

There are four basic strategies observed that can be treated as verbal complementation.

In this section the different strategies are summarized and characterized in a simple formula. The details are given in the subsequent sections.

##### *Strategy I: Verbal noun complement*

This is the most integrated way to complement a verb. There is no complementizer present, and the finite verb (V) is followed by a verbal noun. The verbal noun is identified by its shape. Syntactically this is a simple clause with nominal complement. This strategy is observed with a large number of verbs.

V + Verbal Noun

For details see 4.3.3.1 above.

##### *Strategy II: subordinate clause in subjunctive mood*

This strategy is only used by the verbs *cí* 'say' and *dís* 'let'. The subject (S) of the complement taking verb (V) is co-referential with the subject of the complement clause. The MAN marker of the verb in the complement clause (V<sub>cc</sub>) is typically restricted to SUBJUNCTIVE (*m*-).

S<sup>V</sup> + co-referential S<sup>V<sub>cc</sub></sup>

The examples are in 4.3.10.1 below.

*Strategy III: (in)direct object reference in subordinate clause with (im)perfective aspect*

There is no complementizer but the direct object (DO) of the main clause is always the subject of the complement clause. Only IMPERFECTIVE and PERFECTIVE can be observed on the verb in the complement clause.

$$V_{DO} + DO_{\text{referential}}-S^{V_{cc}}$$

A subtype of this strategy involves a 3<sup>rd</sup> person subject in the main clause that is interpreted as 'impersonal'. There may or may not be a direct object. If one is present, the subject of the subordinate clause refers to it.

$$S:\text{impersonal}V_{(DO)} + (DO_{\text{referential}})-S^{V_{cc}}$$

The examples are in 4.3.10.2 below.

*Strategy IV: with complementizer sa*

This strategy is widely used with many different types of verbs. It involves the complementizer (COMP) *sa* between the finite verb and the complement clause. The verb in the complement clause is typically marked with FUTURE. The subjects of the verbs may be co-referential or not. Most finite verbs that are observed with strategy IV can also be found with strategy I.

$$S^V \text{ COMP}_{(\text{co-referential})} S^{V_{cc}}$$

A subtype of this strategy concerns verbs with a 3<sup>rd</sup> person subject in the main clause that is interpreted as 'impersonal'.

Find the examples in section 4.3.10.3

**4.3.10.1 Complement clauses with subjunctive**

There are two verbs that are regularly followed by a subjunctive complement clause. The verb *dís* 'let (alone)' allows for a direct object followed by a subjunctive clausal complement. The subject of the complement clause is coreferential with the direct object of the verb, e.g.

(142) a) *dís=a a=m-kó*  
 let=3s<sub>1</sub> 3s<sub>1</sub>=SUBJ-leave  
 let him leave!

- b) *andə-tə-dís*      *ayáy*  
 2p=FUT-let      1s  
*aya-m-d(á) ándi s(e) a-səstən fóoda*  
 1s-SUBJ-do 2p    DAT    SG-ask    one  
 will you (pl) allow me to ask you (pl) one question?

Another verb which may be followed by a subjunctive complement clause is the verb *ci* 'think, say'. When used with a dative complement this verb is translated as 'say' and is followed by a complement clause citing the speech act. Without a dative complement, it takes the more vague meaning of 'thinking'. In this construction it is often followed by a subjunctive clause with a coreferent subject, which expresses an intention. The verb then translates into English as 'want', e.g.

- (143) a) *a-ccí*      *a-m-tén*  
 3s=say      3s-SUBJ-arrive  
 he wanted to come. (Lit: he<sub>1</sub> said he<sub>1</sub> would arrive)
- b) *a-ccí*      *a-m-hangá*      *t-a-bákar-t*      *ən*      *mó*  
 3s=say      3s-SUBJ-go.over    F-SG-sheep-F.SG    GEN    face  
*a-mm-əzzár*      *áari*.  
 3s-SUBJ-be.ahead 1p  
 he wanted to go around in front of the sheep to be ahead of us.
- c) *a-ccí* *a-sə-bóy*      *t-ə-mízar*      *ka*.  
 3s=say 3s=NEG.IMPERF-move    F-PL-old.camp    LOC  
 she didn't want to move from the old campsite.  
 or: she said she will not move...

When the subjects are not co-referential, other MAN markers are allowed on the verb in the subordinate clause.

- (144) *a-ccí*      *a-b-sə-ss-əyr(a)-i*.  
 3s<sub>1</sub>=think    3s<sub>2</sub>=IMPERF-CAUS-CAUS-learn=3p<sub>3</sub>  
 he<sub>1</sub> thought he<sub>2</sub> would teach them<sub>3</sub>.

This sentence can also be interpreted as indirect speech and thus be translated 'he said he was teaching them'.

#### 4.3.10.2 Complement clauses where PERF and IMPERF are allowed

There are a number of verbs that regularly take an imperfective or a perfective complement without any overt complementizer. In these constructions, complement clauses with an imperfective express simultaneity with the action in the matrix clause and that in the complement clause. The perfective appears in the complement clause when the action in the complement clause is already closed by the time the action of the matrix clause takes place.

'hear sth.' *mó* (*hé se*)

The pronominal complement of the verb 'hear' is always marked with a dative.

(145) a) *aya-mm(o) i-s(e) i-f-tén.*  
 1s-hear 3p=DAT 3p=IMPERF-arrive  
 I heard them arrive.

b) *aya-b-m(o) i-s(e) i-f-tén.*  
 1s=IMPERF-hear 3p=DAT 3p=IMPERF-arrive  
 I hear them, they are arriving. (as we speak)

c) *aya-b-m(o) i-s(e) i-ttén.*  
 1s=IMPERF-hear 3p=DAT 3p=arrive  
 I hear them (they have) arrive(d).

'see' *guná*

(146) *aya-ggun(á)-i i-b-didá.*  
 1s=see=3p 3p=IMPERF-walk  
 I saw them leave.

'perceive' *yogá*

(147) *aya-bb-óg(a)-í i-ddidá*  
 1s=IMPERF-perceive=3p 3p=walk  
 I see that they have left.

The verbs 'see' and 'hear' are also used with the complementizer *sa*. Find examples under (152) and (153).

The verb *gár* 'find; come upon' is found with the same construction.



- (148) a) *aḡa-ggár almán a=f-keedí bangú.*  
 1s=find herd 3p=IMPERF-be.on well  
 I found the herd at the well.
- b) *a-ggár=i i-kkós íngi káamil.*  
 3s=find=3p 3p=cut 3p.EMP all  
 He found them (ears) all cut.
- c) *i-ṣṣ-éwən i=n táyni*  
 3p=CAUS-share 3p=GEN date  
*i-ggár=a dáalib a-báara.*  
 3p=find=3s uneven.number 3s=be  
 They distributed their dates and found there was an  
 uneven number.

The verb *gór* 'must' has an impersonal 3s subject clitic *a=*, while the subject is only specified in the complement clause. The NP in the third example can be analysed as a preposed topic since it is not allowed to have nominal constituents between the matrix and the complement verb. In all cases the complement clause is in the imperfective.

- (149) a) *a-gor i=b-fík(a) ánga har...*  
 3s=must 3p=IMPERF-CAUS.eat 3s.EMP until  
 they had to feed her until...
- b) *a-gor ni=b-dúwənn-ət ənd(a) aḡáy.*  
 3s=must 2s=IMPERF-talk with 1s  
 you must talk with me.
- c) *aḡa=n t-á-ḡud a=sé-gor a=b-dút*  
 1s=GEN F-SG-girl 3s=NEG.IMPERF-must 3s=IMPERF-pound  
*ana ni=wáni a=b-gorá.*  
 2s.DAT 2s=of 3s=IMPERF-sit  
 as for my girl she does not have to pound for you (while)  
 yours is sitting.

*tégor* 'begin' is marked with the same referent as the verb of the complement clause. The last example shows that a nominal constituent can precede the verb of the complement clause. This verb is always in the imperfective, e.g.

- (150) a) *bor-en cind-en i-ttégor i-b-nín i-ka*  
 person-PL some-PL 3p=begin 3p=IMPERF-drink 3p=LOC  
 some begin to drink from it.
- b) *...ən-ttégor ni-bb-eerí*  
 2s=begin 2p=IMPERF-vomit  
 ...you begin to vomit.
- c) *igdá a-ttégor a-múnsu a-b-díydi*  
 because 3s=begin SG=food 3s=IMPERF-get.into  
*bor-én ən í-ffan-an ka har...*  
 person-PL GEN PL-tooth-PL LOC until  
 because the food begins to get into the teeth of the  
 people until...

The verb *ko* 'can' (also 'leave') has the choice between personal and impersonal syntax. This verb has different aspectual uses in positive and negative sentences. In positive sentences, the verbs in the matrix clause and in the complement clause are both in the perfective. In negative sentences, the verbs in matrix and complement clause are in the imperfective.

- (151) a) *ni-kkó ni-dd(á)-i*  
 2s=can 2s=make=3p  
 you can make them.
- b) *ay-n naná a-kkó a=yyiyim(á) áa-se*  
 3s=GEN mother 3s=can 3s=color 3s=DAT  
*a-báktaw*  
 SG-cushion  
 her mother can color a/the cushion for her (daughter).
- c) *a-sə-kó a-b-fún-a.*  
 3s<sub>1</sub>=NEG.IMPERF-can 3s<sub>1</sub>=IMPERF-pierce=3s<sub>2</sub>  
 it<sub>1</sub> (tool) cannot pierce it<sub>2</sub> (stick).
- d) *gánd(a) a-sə-kó ni-b-léem=a*  
 earth 3s=NEG.IMPERF-can 2s=IMPERF-twine=3s  
 earth, it is not possible that you twine it (to a thread).

There are a number of verbs that always have a 3s pronoun clitic that is used in an impersonal way. Structurally they always have a complementizer *sa* and will be treated in the following section.

#### 4.3.10.3 Verbs with complementizer *sa*

Verbs of various semantic domains are found with a complement clause that is linked by *sa* COMP. The same particle is used for non-restrictive relative clauses (4.5.4) and to link the topic to non-verbal clauses (4.7.1.1).

The following verbs may take the complementizer *sa*:

'see' *guná*

The complement clause may be a verbal or a non-verbal clause as example (152) shows.

- (152) *i-gguná-kat*      *sá*      *t-á-zdək-k*  
 3p=see-VEN                      COMP    F-SG-be.clean-F.SG  
*áŋga*              *saffarí.*  
 3s.EMP              medicine  
 they saw that cleanliness is medicine.

'hear sb.' *mó* (*hé se*)

- (153) a) *arw-én*      *ooda*              *émməs-kábahar*      *i-mmó*      *sa*  
 man-PL              DEM.NEAT              maybe-when              3P=hear              COMP  
*t-a-bállen-t*              *ni-b-hurrú*              *i-tə-wí*              *nín.*  
 F-SG-fight-F.SG              2s=IMPERF-look.for              3p=FUT-kill              2s  
 these men, when they hear that it is a fighting match you  
 seek, they will kill you.

- b) *nín iizac(e) ooda a-b-mó (a)-se*  
 2s.EMP young.man DEM.NEAR 3s=IMPERF-hear 3s=DAT  
*s(a) a-ddá aṅṅúdr(a) ayo n əngám*  
 COMP 3s=make promise DET GEN instant  
 you need to know, this young man heard her make this  
 promise mentioned before.

The interpretation of the complement in the last example is ambiguous. It could also be read as ‘when she made...’ with the clause initial particle *sa* ‘when’.

See the use of ‘see’ and ‘hear’ with a verbal noun complement under 4.3.10.2.

‘want’ *báaya*

- (154) a) *aya-bbáaya sa aḡ-tə-d(á) ana t-a-néfus-t.*  
 1s=want COMP 1s=FUT-do 2s.DAT F-SG-story-F.SG  
 I want to tell you a story.
- b) *a-bbáaya sa (ə)n-tə-n(á)áa-s(e) a-ḡáanib.*  
 3s=want COMP 2s=FUT-give 3s=DAT SG-pencil  
 he wants you to give him a pencil.
- c) *aya-bbáaya sa (ə)n-sə-kó*  
 3s=want COMP 2s=NEG.IMPERF-leave  
 I would like you not to leave.
- d) *aḡ-sə-kúl sa (ə)n-tə-kó*  
 1s=NEG.IMPERF-want COMP 2s=FUT-leave  
 I don’t want you to leave (*very impolite formula*).

‘be necessary’ *yilzəm* is a verb of light obligation, that takes a direct object. The direct object is co-referential with the subject of the complement clause.

- (155) *aséeñat a-yyilzəm borá t-oo-lás-t*  
 health 3s=be.necessary person F-SG-do.again-F.SG  
*s(a) a-tə-z-əzdəg ay=n t-áa-ḡəssa*  
 COMP 3s=FUT-CAUS-be.clean 3s=GEN F-SG-body  
 (to stay in good) health it is also necessary for somebody  
 that s/he cleans his/her body.

‘wish’ *yasák*

- (156) *aya-yyasák s(a) a-tá-kas tangar-én*  
 1s=wish COMP 3s=FUT-be lie-PL  
 I wish that it would (turn out to) be lies.

The following example illustrates a parallel use of a complement clause with *sa* and of a verbal noun complement.

- (157) *c(i) andə=yyasák s(a) andə=tə-dáy aɣáy*  
 what 2p=wish COMP 2p=FUT-buy 1s  
*daw n a meɣ bún?*  
 LOC SEP 3s or die.VN  
 what do you wish, that you buy it with me or death?

'prefer' *yasáf*

- (158) *barr-én i=yyasáf s(a) i=tə-keen(i)*  
 child-PL 3p=prefer COMP 3p=FUT-sleep  
*i=n nan-én ən áasi-tan ka.*  
 3p=GEN mother-PL GEN belly.side-PL LOC  
 children prefer to sleep against the belly of their mothers.

'be sure' *káw affak* (lit: 'to take out doubt')

- (159) a) *əndánga wiji sa (ə)n=tə-káw affak*  
 if is.not COMP 2s=FUT-take.out doubt  
*sa ni=ss-əyrəd ni=n t-ə-kərdaw*  
 COMP 2S=CAUS-be.complete 2s=GEN F-PL-letter  
 except when you are sure that you have assembled your papers
- b) *káw affak s(a) a-ttén*  
 take.out doubt COMP 3s=arrive  
 be assured that he has arrived!
- c) *wa (ə)n=sə-káw affak sa ni=wáni*  
 IMP 2S=NEG.IMPERF-take.out doubt COMP 2s=of  
 don't be sure that it (money) is yours!

The last example has a non-verbal complement.

'lose hope' *kaw áttama*

- (160) *har i-kkaw áttama*  
 until 3p=take.out hope  
*s(a) i-séftar i-tə-tén íi-daw*  
 COMP PL-put.on 3p=FUT-arrive 3p=LOC  
 until they lost hope that bedding would arrive at their  
 place.

'begin' *s-əntá*

- (161) a) *a-ss-əntá s(a) á-b-ŋa*  
 3s=CAUS-begin COMP 3S=IMPERF-eat  
 she began to eat (*first time or again after e.g. sickness*).

- b) *a-ss-əntá s(a) a-ŋŋá*  
 3s=CAUS-begin COMP 3S=eat  
 she began to eat.

'be at the point of' *yabúk*

- (162) *gálək a-yyabúk s(a) a-tə-wí=i*  
 hunger 3s=be.at.point.of COMP 3S=FUT-kill-3p  
 hunger was at the point of killing them.

The verb *hurrú*, 'look for', can be translated 'try' when it is followed by a complement clause.

- (163) *aɣa-b-hurrú s(a) aɣ-tə-kár a-ka huurú.*  
 1s=IMPERF-look.for COMP 1s=FUT-hit 3s=LOC fire  
 I try to make fire on it (wooden stick).

'think' ~ 'believe' *yordá*

- (164) a) *aywa aɣa-yyordá s(a) aɣa-n*  
 RESUME 1s=think COMP 1s=GEN  
*t-a-náfus-t ánga n(e) áyda*  
 F-SG-story-F.SG 3S.EMP place DEM.PROX  
 well, I think that this was my story.

- b) *aɣa-yyordá s(a) a-tə-tén zérooda*  
 1s=think COMP 3S=FUT-arrive today  
 I believe/think he arrives today.

'ought to' *may-ənda*

- (165) a) *á=mmay-ənda s(a) a-tə-wi-á*  
 3s<sub>1</sub>=have-with COMP 3s<sub>1</sub>=FUT-kill-3s<sub>2</sub>  
 s/he ought to kill it.

- b) *ar-sé-may-ənda s(a)*  
 1p=NEG.IMPERF-have-with COMP  
*ar-tə-din(i) ana a-sáafu.*  
 1p=FUT-take 2s.DAT SG-greet  
 we ought not to respond to your greeting.

'have the means to' *kun-ənda* (lit: 'find with')

- (166) a) *aya-kkun-ənda s(a) ay-tə-kóy-kat nin.*  
 1s=find-with COMP 1s=FUT-go-VEN 2s  
 I have the means (time) to come to you.

- b) *ar-nə-kun-ənda*  
 1p=NEG.PERF-find-with  
*s(a) ar-tə-f-ífu borá.*  
 COMP 1p=FUT-CAUS-drink.BND person  
 we do not have the means to give a drink to somebody.

The following verbs all have a 3s subject clitic that needs to be read as impersonal.

The intransitive verb *yahór* 'need to (do)' is used in an impersonal construction.

- (167) a) *ə-s-káhar ni=n karfú a-kkós*  
 maybe-when 2s=GEN rope 3s=cut  
*a-bb-ahór sa (ə)n-tə-s-əmm-ərkəs=a*  
 3s=IMPERF-need COMP 2s=FUT-CAUS-RECI-tie=3s  
 when your rope is broken you need to retie it together.

- b) *a-bb-ahór sa borá kullú a-m-báy*  
 3s=IMPERF-need COMP person each 3s=SUBJ-know  
*s(a) ízy-en...*  
 COMP fly-PL  
 it is necessary that everybody knows that flies...

The verb *yába* 'lack' is used in an impersonal construction. It is used in sentences which translate into English as 'no more, no longer'

- (168) a) *a=yyába s(a) aya-ddébət*  
 3s-lack COMP 1s=be.able  
 I can't any more.
- b) *a=yyírýəd a=yyába s(a) a-f-cí hé*  
 3s=be.silent 3s=lack COMP 3S=IMPERF-say thing  
 he is silent, he no longer says anything.

The verb *híffil* 'be obliged to' is always used in an impersonal construction. The person who is obliged is either a direct object of the verb (a, b), or, implying an obligation which is less strong, an oblique object (c).

- (169) a) *a=híffil ayáy s(a) ay-tə-kó á-yrəm.*  
 3s=oblige 1s COMP 1s=FUT-go SG-town  
 I must go to town.
- b) *a=híffil=a s(a) a-tə-kó á-yrəm.*  
 3s=oblige=3s COMP 3s=FUT-go SG-town  
 he must go to town.
- c) *a=híffil áa-ka dá s(a) ánga dá*  
 3s=oblige 3s=LOC INT COMP 3s.EMP INT  
*a-tə-da hé (a)yo bor-én i-ddá.*  
 3s=FUT-do thing DET person-PL 3p-do  
 it is expected of him that he, too, does what the people do.

#### 4.3.10.4 Complement clause with *kúd* and *kud da*

*Kúd* 'if' introduces a subordinate clause after certain verbs of intellectual activities, such as *báy* 'to know', *s-éstən* 'to ask' and *sé-mm-ədrən* 'to reflect on'. *kud dá* 'if (at all)' rarely occurs in the same context.

- (170) a) *aya-b-sé-mm-ədrən kúd a-ttén mey*  
 1s=IMPERF-CAUS-RECI-turn.around if 3s=arrive or  
*a-nə-tén.*  
 3s=NEG.PERF-arrive  
 I am asking myself if he has arrived or not.



- b) *a-sə-báy*                      *feddí kúd*    *a-f-kó*  
 3s=NEG.IMPERF-know      yet    if      3s=IMPERF-leave  
*wal(a)*      *a-b-gorá-kat.*  
 or              3s=IMPERF-sit-VEN  
 he doesn't know yet if he'll leave or stay.

The verb in the following example is a complex idiom, *ay=n i-m-ádr-an i-kkun(á) ayáy* (3s=GEN PL-RECI-turn.around-PL 3p=find 1s.O) literally 'its/his thoughts found me' which can be read as 'I am worried about' and can take a *kúd*-complement.

- (171) *i-má-dran-an*                      *i-kkun(á)-a*  
 PL-RECI-turn.around-PL      3p=find-3s  
*íizac(e)*      *óoda wán-en*  
 youth                      DEM of-PL  
*kud a-tə-yiddár-kat wal(a) a-tə-hang(á)*  
 if      3s=FUT-live-VEN      ou                      3s=FUT-pass.over  
*ənda he n kun(á) óoda.*  
 with thing GEN find.VN                      DEM  
 she was worried about this boy, if he would live or pass  
 away with this sickness.

The next example is an instance with the verb 'look' and *kúd*.

- (172) *bora*                      *əmməs-kábahar*    *ni=m-hurr(ú)*                      *áa=ka*  
 person                      perhaps-when      2s=SUB-look.for      3s=LOC  
*t-a-rásway-t háaʃi kud (dá)*  
 F-SG-clothing-F.SG look if      (INT)  
*áng(a) ənd(a) ay=n gá*  
 3s.EMP                      with                      3s=GEN                      self

*ay* *báar(a)*     *ay=n*     *jinji*  
 DET be            3s=GEN        neck  
*kud* *á-mmay*     *t-a-rásway-t*             *wal(a)*  
 if     3s=own        F-SG-clothing-F.SG or  
*a-sé-mmay*        *t-i-zzár-t*                 *ni-bb-éñsi.*  
 3s=NEG.IMPERF-OWN F-SG-be.before-F.SG     2s=IMPERF-beg  
 when you try to get a piece of clothing from somebody,  
 look if he himself, the one (shirt) on his body, if he has a  
 shirt (worth being called a shirt) or not before you beg (of  
 him).

This same particle is used in Tamasheq with the same function but also for other uses. Find more about *kud day* ‘even if’ under conditionals in 4.8.3.4.

#### 4.4 Copular clauses

In this chapter clause types are discussed that show no inflected verb. Such a construction is used to encode the identity of an entity (4.4.1). Presentative expressions are also found in this chapter (4.4.2). To posit the existence of something, the copula *báara* is used and non-existence is encoded with *ji* (4.4.3). In section 4.4.4 locational predication is discussed, and the last section (4.4.5) presents possessive predication.

##### 4.4.1 Equational clauses and ‘be’, ‘become’, ‘not be’

Positive unfocused equational predication (‘X is a teacher’) is expressed without a verb or any other kind of grammatical morpheme. A noun is followed by a noun or an NP. A pronominal referent is expressed by an independent pronoun. A single noun can form a predication, see (174). Any time reference is given by situational or textual context.

Equational clause

(173) a) *t-a-buyán-t*                     *[feejí zen-zen-án]*  
 F-SG-old.sheep-F.SG        sheep be.old-DUP-ADJZR  
 ‘*tabuyant*’ is an old sheep.

b) *[aya=n bér]*             *moofí*  
 1s=GEN        older.sibling teacher  
 my older brother is a teacher.

- c) *áari*      *fammúf*  
 1p.EMP      five  
 we are/were five (people).
- d) *íngi*      *i-bororóji-tan*  
 3p.EMP      PL-ethnic.name-PL  
 they are/were Fulbe.

The equational clause can be used for identification. For negation of identity the particle *wiji* 'is not' is used, which only occurs in this context, as a tag in tag questions (4.7.3.2), and in combination with one of the 'if' markers (4.8.3.1). The particle immediately precedes the noun it negates.

- (174) a) *aya-n*      *báarar*      *íizace*      *wiji t-á-ɲgud*  
 1s=GEN      child      boy      is.not F-SG-girl  
 my child is a boy, not a girl.
- b) *wiji t-á-ɲgud*      *íizace*  
 is.not F-SG-girl      boy  
 it's not a girl, (it's) a boy.

The verb *kas*, 'be / become', is used when one of the elements is in focus. It may or may not set the timeframe before the speech act. In the following example the object 'slave' is fronted before the verb for focalization.

- (175) a) *igán* *taamú*      *aya-kkás?*  
 QST      slave      1s=become  
 am I a slave? / have I become a slave?
- b) *ay-n*      *a-séstan*      *za*      *hé*      *(a)-káas=a ...*  
 1s=GEN      SG-ask      LC      thing      3s=become=3s  
 so my question, this is it: ...

The last example is almost presentative in character. This use is often found with abstract entities like 'a story'. Objects that are presented ('Here is X') use a different strategy (see below).

*kas* 'be/become' is a full verb and can occur with all MAN markers

- (176) a) ...*cedd(i) arə=f-kás barr-en ceená-nanən.*  
 still 1p=IMPERF-be child-PL be.small-ADJZR.PL  
 ... when we were still small children.
- b) *án̄ga dá a-nə-kás ar=n á-ffayal.*  
 3s.EMP INT 3s=NEG.PERF-be 3p=GEN SG-work  
 As for that, it is not our work.
- c) ...*har h(e) óoda a=m-kás a-se*  
 until thing DEM.NEAR 3s=SUBJ-become 3s=DAT  
*he n kuná*  
 thing GEN find.VN  
 ...until this (may) becomes a sickness for him.
- d) *t-a-barányaw-t ayó (a)yda a-té-kas*  
 F-SG-left.over-F.SG DET DEM.PROX 3s=FUT-become  
*t-á-gnaw-t....*  
 F-SG-sickness.kind-F.SG  
 This same leftover will become sickness (kind)...

#### 4.4.2 Presentative expressions

Two kinds of presentative clauses are found. Both have a singular and a plural form. One kind presents an item/items close to the speaker and the other presents an item/items at a further distance. A third, neutral shape is reported to encode 'availability' and does not stress location.

(177) *Presentative surface shapes*

	single item	several items
neutral	<i>né</i>	
proximal	<i>náani</i>	<i>níina</i>
distal	<i>nóo-se</i>	<i>níi-se</i>

All expressions contain a /n/ element that is possibly the part that encodes 'location', compare the elements *né* 'here/there (where)' that encodes location in some way and *no* 'there' used in some other contexts to encode remoteness (see below). Both terms are also present in Mainstream Songhay with similar semantics. Both *ne* and *no* end in a vowel that can be deleted when another vowel follows.

These considerations should be kept in mind as we look at the details of the presentative expressions.

#### 4.4.2.1 *né / náani / níina ‘... is/are here’*

The following construction occurs only once in the corpus.

- (178) *á-lkas né.*  
 (tea)glass here  
 here is a glass (available).

This form is reported to carry very low stress on location. The term could be read as ‘available’.

The other presentative marker seems to consist of three elements. Assuming that the question ‘where is...?’ (*maana*) contains the same elements as the answer ‘here is...’, the first element *na* is a ‘be’-copula followed by a clitic (singular or plural) and a third element encoding ‘here/place/location’. Consider the examples:

- (179) a) *[ni-n fatílla] [n(a)-áa-ni]*  
 2s=GEN torch be=3S-LOC  
 here (is) your torch.
- b) *[fatílla-tan] [n(a)-íi-na]*  
 torch-PL be=3p-LOC  
 here (are) the torches.

There is no good explanation for the difference in the last element and informants consistently deny a possible connection with *né* ‘here’. The expression as a whole is very much focusing on ‘location’, the precise place where the item in question is.

The above examples could also be analyzed as containing the demonstrative *na* OPP that precedes the noun it accompanies, followed by a plural clitic *-i*. The final vowel is deleted and shows as *n(a)-í* ‘that(pl)’. This analysis is less attractive, though, because *na*

OPP is not attested followed by any other element than *ayo* DET or a full noun.

#### 4.4.2.2 *nóose / níise ‘... is/are there’*

The location indicated with these expressions is not very precisely identified. The location is still within sight but no longer within reach of an arm.

The form has the following structure. First comes an element *no* (see below). This is followed by a 3d person pronoun. According to regular vowel assimilation rules, the vowel /a/ of the singular is deleted after /o/ while the vowel /i/ of the plural is maintained. Last comes the element *se*.

For the element /no/ there are several possible identifications. It appears only in two other contexts in Tadaksahak.

In the first context it can be interpreted as a fusion of the elements *né + o* (place + DEBR) ‘location with a broad reference’ = ‘there (non-specific)’. Find examples under 4.5.1.

The other context points in the same direction. *no* is found after plural determiners to point to the past or ‘distant from here’ (ex. *ayónda-no béer-ənən* DET.PL-there be.big-ADJZ.PL ‘those big ones there’ (see 4.1.4, also Ex (64)), and it appears following the noun *əngám* ‘instant’ and indicates ‘past in time’ (e.g. *əngám-ə-no* /instant-[ə]-there/ ‘mentioned before’). These meanings can be seen as temporal interpretations of ‘there, away in space’.

A typical presentational expression for an item in the distance has the following structure.

- (180) a) *aya-n*      *húgu*      *nóo-(a)-se*  
 1s=GEN      house      there-3S-there  
 my house is (over) there.
- b) *ni-n*      *t-é-mgad-an*      *íngi*      *n(óo)-íi-se*,  
 2s=GEN      F-PL-girl-PL      3p.EMP      there-3P-there  
 your girls, they are (over) there.

A relationship to the KCH Songhay term /nono/ ‘it is’ (identificational copula) and KS /no/ ‘it is’ cannot entirely be excluded, even though they are syntactically different. *no* could then be read as a ‘be’-copula followed by a singular (not audible) or a plural (ii) pronoun with the adverbial ‘there’ i.e. /be-3s-there/ and /be-3p-there/ respectively.

KS also has a particle /no/ which can at times be glossed as ‘there’ (Heath 1999b:86) with very low stress on a semantic ‘location’. This particle joins our initial approach of a not very specific locational expression that points in the distance.

#### 4.4.3 Existential predications

Existential predication is expressed with the intransitive verb *báara* ‘be/exist’.

- (181) a) *assakúr a-báara.*  
 sugar 3s=exist  
 there is sugar.
- b) *ary-én i-báara.*  
 water-PL 3p=exist  
 there is water.

A special case is illustrated in the example below.

- (182) ..*sa (ə)n-sə-káw émmək ayo bé ni-báara*  
 COMP 2s-NEG.IMPERF-take manner DET on 2s=exist  
 ...that you will not change the way you are (now)

In this example the stative quality of this verb is addressed. *kas* ‘be/become’ would not fit here since this verb has a semantic component of ‘change’ and here the state at the moment of the speech is in focus.

In order to negate the existence of an item the verb *ʃí* ‘not to be’ is used. This verb may be related to the NEG.IMPERF prefix *sə-*. Mainstream Songhay has similar elements to express the negation of ‘exist’, i.e., /sii/ in KCH (Heath 1999a:148), and /sii ~ jii/ in KS (Heath 1999b:179ff).

- (183) a) *assakúr a-ʃí*  
 sugar 3s=not.be  
 there is no sugar.

- b)    *ary-én*    *i=ǰǰí*  
       water-PL    3p-not.be  
       there is no water.

If the referent is known, the negative copula with a 3<sup>rd</sup> person clitic is sufficient to express ‘there is none’, *a=ǰǰí*.

Both *báara* and *ǰí* can be used without overt MAN marking in present or future context.

Both expressions are also part of the locational predications described in the paragraph below (4.4.4).

A different way to express the non-existence of something is the particle *wértilla* ‘there is not’. This particle has been taken over unanalyzed from Tamasheq /wæer=t i-lla/ ‘there is not’ (Heath 2006:588). The syntax of *wértilla* is different from that of phrases with *ǰí*. The particle precedes the negated noun similar to the negation of identity shown above (example (174)).

- (184)    *iddá*    *əmməs-kábahar*    *wértilla*    *alxér*  
           because maybe-when            there.is.not peace  
           *wértilla*    *kúd,*            *wértilla*    *habá*  
           there.is.not pasture.VN    there.is.not harvest.VN  
           *wértilla*    *assóq*            *ən*    *kóy*  
           there.is.not market            GEN leave.VN  
           because, if there is no peace, (as consequence) there is  
           no leading the animals to pasture, no harvesting, no going  
           to the market.

#### 4.4.4 Locational predications

Locational predicates are based on *báara* ‘be in’ and *keedí* ‘be high on’. For both of them the location can be expressed by a nominal direct object (unmarked complement), a locative adverbial or a locative postpositional phrase with *daw*. The third locational verb is *keení* ‘lie’ which is used for items that do not stand. This same root means ‘sleep’ when the subject is a human referent. The verb *keení* needs an adpositional complement with the postposition *ka* to express the location.



## Locational verbs

- (185) a) *a-báara sénda*  
 3s-be there  
 she is/was there.
- b) *a-báara néeda*  
 3s-be here  
 he is/was here.
- c) *a-báara [t-ə-mízar asénda]*  
 3s-be F-PL-old.camp DEM.FAR  
 she is/was in that old camp.
- d) *a-másloy a-f-keed(i)-a*  
 SG-saddle.blanket 3s=IMPERF-be.on=3s  
 the/a saddle blanket is on it (camel).
- e) *ceed(i) á-f-keeni [gánda ka]*  
 spoon 3s=IMPERF-lie earth LOC  
 the/a spoon lies on the ground.

*báara* is also used in sentences with the postposition *daw* 'at (somebody's)' *a-báar(a) ayáy daw* (3S-be 1s LOC) 'She is at my place.'

*báara* can also be used to attribute a quality to an entity. The quality in a nominal form is the subject and the referent having the quality is the direct object.

- (186) a) *díng(á) á-báar(a) ayay*  
 forgetfulness 3s-be.in 1s  
 I am forgetful (Lit: forgetfulness is in me).
- b) *gorgor-én i-báar(a) ánga*  
 laughter-PL 3p-be.in 3s.EMP  
 it is amusing. (Lit: laughters are in it, e.g. a story)

When the quality is attributed to a tall animal, like a camel, one can also use the verb *keedí* with the same meaning.

- (187) *á-mñəs ay(o) óoda a-xərrəm a-f-keed(i)-á*  
 SG-camel DET DEM.NEAR SG-disobedience 3s-IMPERF-be.on-3s  
 this camel, it is disobedient.

The absence of an item in a certain location is expressed with the verb *fi* 'not to be' that takes an adverbial (a) or an unmarked complement (b) to express the location. The fronted NP in ((188)b) encodes the location where the presence of 'water' is negated

- (188) a) *a-ffi néeda da sénda.*  
 3s-not.be here INT there.  
 it is neither here nor there.
- b) *T-óoruf-t ary-én i-ffi-a*  
 loc.name water-PL 3p-not.be-3s  
 In T., there is no water.

The verb 'to lose' is expressed with the verb 'not exist' with an adpositional complement. Syntactically the 'lost item' is the subject and the person who lost something is expressed by the complement. A very literal reading could give 'Y does not exist in X'.

- (189) *á-zrəf a-ffi(i) ayáy ka.*  
 SG-silver 3s-not.exist 1s LOC  
 I lost (some) money.

#### 4.4.5 Possessive predication

The verb *máy* 'have' expresses ownership. The owned item is the object of the clause.

- (190) a) *á-mmay haw-yén*  
 3s=have COW-PL  
 he owns cows.
- b) *áa-nibo a-sé-mmay baabá.*  
 SG-bastard 3s-IMPERF.NEG-have father  
 an illegitimate child has no father.

In some instances it can also be translated as 'belong to', e.g. when the identity of a person is questioned.

- (191) a) *cí mmáay-a?*  
 who have-3s  
 who is he? (Lit: who owns him = to whom does he belong?)

- b) *i-dogíri-tan nə-mmáy ayáy*  
 PL-clan.name-PL FOC-have 1sO  
 I belong to the Idogiritan. (Lit: It's the I. who own me)

In order to topicalize the possessum, a non-verbal identificational construction is used.

- (192) [*huur(ú) asénd(a)*] [*alfáqi wáni*]  
 fire DEM.FAR teacher of  
 that fire is the teacher's = belongs to the teacher.

This same construction is used to identify the owner.

- (193) Q: *cí mmáy feej(i) ay(o) óoda?*  
 who have sheep DET DEM.NEAR  
 who owns this sheep?

- A: *ay=wáni*  
 1s-of  
 (it's) mine.

The verb *máy* is also found together with attributive nouns like stubbornness and wisdom. It then expresses 'being of that quality'. The subject is the entity exposing the quality.

- (194) *á=mmay táyta*  
 3s-have wisdom  
 he is intelligent.

### Summary

In the table below 'N' stands for the entity about which further information (existence) is given. 'L' designates the place where a location name is expected to express a location.

	positive	negative
identity	no marker	<i>wiji</i> + N
existence	N + <i>báara</i> 'be'	N + <i>ʃí</i> / <i>wártilla</i> + N
location	<i>báara</i> + L 'be in' <i>keedí</i> + L 'be (high) on' <i>keení</i> + L <i>ka</i> 'lie on'	<i>ʃí</i> + L
possessive	<i>máy</i> 'have'	NEG- <i>may</i>

## 4.5 *Relative Clauses*

Tadaksahak has two different types of relative clauses (RC). The formal difference is the presence or absence of the complementizer *sa*, that typically introduces a non-restrictive relative clause that gives additional information about the referent. Restrictive RCs, i.e., RCs with identificational information about the referent, show a different construction for subjects and when other parts (object, oblique objects) are relativized. Only subject relatives ('a man who eats') can be marked by the presence of *nə-/ən-*, a demonstrative-like particle, which occurs when the MAN marker (Mood-Aspect-Negation) on the verb has the shape CV-.

The RC normally follows the noun it modifies immediately and so may be placed in the middle of the main clause. The end of such a RC is typically marked with a short pause that prevents vowel contraction.

Possessors ('my mother whose house...') can only be relativized by means of the *sa* complementizer. This is discussed below (4.5.4.2). When the head NP is an independent pronoun ('you who...') the marker *nó(o-da)* 'there' must follow the pronoun. Find the discussion in 4.5.3 below.

### 4.5.1 *Restrictive relative clause*

Mainstream Songhay has a single strategy using the invariable relative morpheme /kaa/ in Timbuktu (Heath 1999a: 186) or /kaŋ ~ kan ~ ka/ in Gao (Heath 1999b: 241). Under certain circumstances a resumptive pronoun is found in relative clauses (Heath 1999b:244) and adpositional RCs may remain in situ with a corresponding pronoun. Heath analyzes Songhay RCs as consisting of a head NP connected with the REL /kaa ~ kaŋ/ to the embedded clause. In contrast to Songhay languages, Tamasheq is considered to have RCs with an internal head, a demonstrative, and differentiates between definite and indefinite RCs, while a resumptive pronoun does not normally occur (Heath 2005:624ff). In addition, subject relativization is marked on the verb by means of special inflection. Tadaksahak RCs show many features that can also be observed in Tamasheq: a) subject RCs have a different inflection from other relativized relations (object, oblique objects). b) there are no resumptive pronouns. When the head has been extracted from a

postpositional phrase, the bare (4.5.1.3, see below) postposition is put at the left edge of the relative clause.

The analysis of the linking of the relative clause to the head is somewhat complicated. Relative clauses with a definite head always have the element *ayo* 'DET'. Outside relative syntax, this element may accompany different kinds of NPs and gives them salience in their context (4.1.4). It also functions as a pronominal head of relative clauses which have no NP head. Its function is very much like that of the demonstratives /w-a, w-i, t-a, t-i/ of Tamasheq, minus the gender distinction. Dialectally different plural forms are attested. In a NP that is relativized, *ayo* can be accompanied by a demonstrative, e.g. *i-tə-húur(u) a-múnsu ay(o) óoda ni-ηηá...* (3s=FUT-enter SG-food DET DEM 2s=eat) 'it (left over food) will enter into the food (that) you eat...'.<sup>1</sup>

When the head noun is indefinite, *ayo* 'DET' does not appear.

Two analyses come to one's mind here. In the first analysis, *ayo* 'DET' is simply a determiner of the head noun; the main difference with normal determination is that the head noun, when definite, is obligatorily marked by *ayo* 'DET', while this is not the case in other contexts. Definite-head and indefinite-head restrictive relative clauses would then have the same structure, being marked by the use of *nə-/ən-* in subject relatives and by the left-edge position of the pronoun-less postposition in prepositional relatives.

As *ayo* 'DET' also may function as the sole pronominal head of a relative clause ('the one that'), a different analysis is also possible. In this analysis, definite-head relative clauses would have a clause-internal pronominal head, while indefinite-head relative clauses would have to do without. This analysis would be similar to that by Heath (2005) for Tamasheq; however, one should note that the Tamashek structure is not entirely identical to the Tadaksahak structure, as Tamashek also allows for indefinite pronominal heads.

When adpositional complements are relativized, the PPs are fronted to the clause and follow the (definite) NP with *ayo* as the last element or the head noun immediately when it is indefinite.

The two analyses can be schematicized as follows:

*(196) Definite and indefinite RC: two analyses*

analysis 1	definite	head noun <i>ayo</i> [RC]
	indefinite	head noun [RC]
analysis 2	definite	head noun [ <i>ayo</i> RC]
	indefinite	head noun [RC]

The following scheme lists the different particles that can follow *ayo* when it is part of a relativized NP.

	<i>nə-/ən-</i>
DET	demonstratives
DET.PL	postpositions
	<i>sa</i>

The more economic analysis of the two possibilities presented above seems to be the option where there is one kind of RC and a relativized definite NP contains obligatorily *ayo*.

*4.5.1.1 Subject relatives*

In subject relatives, the verb is preceded by the extraction marker *nə-/ən* (glossed EXM) when *se-* 'NEG.IMPERF' *nə-* 'NEG.PERF' or *tə-* 'FUT' are the MAN markers (Mood-Aspect-Negation) on the verb and takes the place of the subject clitic in the RC. It is indifferent to number. Before the other MAN-markers (perfective *b-/f-* and unmarked imperfective), EXM is dropped for some unknown reason, or possibly fully assimilated to the following consonant. EXM has the same shape and appears in the same place (when it is present) as the focus marker for subject focus (see 4.7.2.1).

Examples under (197) show subject RCs where the MAN markers allow no 'extraction marker' EXM, while (198) gives examples with *nə-/ən-*.

(197) a) *bor(á) ayo [táw-kat néeda]*  
 person DET reach-VEN here  
 the person who arrived here

b) *i-múnas-kon ayondo [zzumbu řáli daw]*  
 PL-camel-owner.PL DET.PL go.down prop.name LOC  
 the camel riders who dismounted at Rhali's (place)

- c) *bor(á) ayo [f-keedí t-á-ylam-t]*  
 person DET IMPERF-be.up F-SG-riding.camel-F.SG  
 the person who is riding the camel
- d) *a-3áazib [dá f-íkfid]*  
 SG-phantom put CAUS-fear.VN  
 a phantom that frightens
- e) *hé [b-s-əgd(á) ənda ni-n]*  
 thing IMPERF-CAUS-be.equal with 2s=GEN  
*á-ƙar ən zīibi]*  
 SG-nail GEN dirt  
 something that is the size of the dirt under your nail
- (198) a) *aarú ayo [nə-nə-hunú húgu daw]*  
 man DET EXM-NEG.PERF-leave house LOC  
 the man who did not leave from home.
- b) *aaru ayo [n-sə-húuru ay=n car-én]*  
 man DET EXM-NEG.IMPERF-enter 3s=GEN friend-PL  
 the man who is not together with his (boy)friends  
 (...becomes a girl.)
- c) *he (a)yo [n-tə-nin-i]*  
 thing DET EXM-FUT-drink-3p  
 the thing (human/animal) that will drink it (water)
- d) *tú [ən-sə-yáhar]*  
 bowl EXM-NEG.IMPERF-be.covered  
 (it sees) a bowl that is not covered
- e) *tuw-yén [ən-sə-yáhar]*  
 bowl-PL EXM-NEG.IMPERF-be.covered  
 pots that are not covered...
- f) *[a-zúbara nn éejam]*  
 SG-warthog GEN fat  
*[ən-tə-huur(ú) áy=n t-í-nzar] kor-korr-í*  
 EXM-FUT-enter 3s=GEN F-PL-nostril DUP-be.hot-ADJZR  
 (except) hot warthog fat that enters his trunk
- g) *hawrú [nə-ná-hina húllən]*  
 meat EXM-NEG.PERF-cook much  
 (he eats) meat that is not well cooked.
- h) *lyyá [cīdaw ən hé fó] [nə-ná-faʔər]*  
 yes bird GEN thing IND EXM-NEG.PERF-be.important  
 yes, a little bird that is not important.



## 4.5.1.2 Object relatives

The scheme below is valid for all non-subject RCs.

## (199) Structure of restrictive non-subject RC

Direct object	noun (DET) (DEM)	[(NP) verb]
Adposition	noun (DET) (DEM) [adposition (NP) verb]	

Tadaksahak does not leave any pronominal trace in an object RC. This is the same behavior as observed in CHK (Heath 1999a:191) and Tamasheq, but different from KS where a resumptive 3<sup>rd</sup> person pronoun is left in the place of the extracted noun (Heath 1999b:244). In the examples below, the place where a direct object would appear if the clause had been a main clause is marked with  $\emptyset$ .

- (200) a) *áffayal ayo [aya=mmáy nín ka  $\emptyset$ ] a=bbén*  
 work DET 1s=have 2s LOC 3s=be.finished  
 the work I have for you is finished.
- b) *i-múnsuw-an ayondó*  
 PL-meal-PL DET.PL  
*[aya=b-fúr-an ándi se  $\emptyset$ ]*  
 1s=IMPERF-throw-ALL 2p DAT  
 the food that I threw to you
- c) *almitál ay(o) óoda [ay=tə-har andi se  $\emptyset$ ]*  
 example DET DEM.NEAR 1s=FUT-tell 2p DAT  
 this example that I will tell you
- d) *he (a)γ(o) óod(a) [a=b-da  $\emptyset$ ]*  
 thing DET DEM 3s=IMPERF-do  
 what he did (lit: this thing that he did)
- e) *t-a-néfus-t [[ayá-n bab(a)*  
 F-SG-deed-F.SG 1s=GEN father  
*ayo zéen-ij] a-ddá  $\emptyset$ ].*  
 DET be.old-ADJZR 3s=do  
 a courageous deed that my grandfather did...
- f) *a-kárfay [a=kkun(á) áa=ka  $\emptyset$ ] a=ffí aa=ka*  
 SG-cloth 3s=find 3s=LOC 3s=not.be 3s=LOC  
 a scarf she got from her is lost.

## 4.5.1.3 Postpositional relatives

In postpositional relatives the postposition is put to the left edge of the RC.

- (201) a) *ni-n hinciní ayo [se ni-f-kós=i]*  
 2s-GEN goat DET DAT 2s-IMPERF-cut-3p  
 your goat for which you cut them (branches)
- b) *a-yyéd i-n ángu ayo*  
 3s-return 3p-GEN place DET  
*[k(a) i-yyízday].*  
 LOC 3p-live  
 he returned to the(ir) place in which they live.
- c) *záyri ayo [ká ni-ss-ábdəd=i ayá-n mo ka]*  
 day DET LOC 2s-CAUS-stop.BND=3p 1s-GEN face LOC  
 the day (on which) you bring them before me...
- d) *agúd ay(o) óoda [ka a-bbáaya s(a)*  
 moment DET DEM.NEAR LOC 3s-want COMP  
*a-tə-méttəkwi]*  
 3s-FUT-move.on  
 the (precise) moment (when) he wanted to move on...
- e) *bídaw ayo sénda [k(a)*  
 canister DET DEM.FAR LOC  
*ary-én i-f-t-éwi-yan ii-se]*  
 water-PL 3p-IMPERF-PASS-bring.BND-ALL 3p-DAT  
 (he brought) that canister in which water had been brought to them
- f) *áy-n banjú ayo [b(e) a-zzumbú]*  
 3s-GEN head DET LOC 3s-descend  
 her head on which it (bird) landed
- g) *a-γázar ayo*  
 SG-pond DET  
*[daw áy-n ary-én i-tə-káy]*  
 LOC 3s-GEN water-PL 3p-FUT-stop  
 the pond at which (rain wash) water stops
- h) *ée-dag [ka t-áa-har-t a-háy]*  
 SG-place LOC F-SG-lion-F.SG 3s-give.birth  
 (until she saw) a place where a lioness had given birth.

- i) *hé* [*b(e) id-ádduwul* *i=b-zóχ*]  
 thing LOC PL-country 3p=IMPERF-fight  
 a thing about which countries fight
- j) *t-á-ηgud* [*s(e) a=ddá* *hé*]  
 F-SG-girl DAT 3s=do thing  
 a girl for which he did something

#### 4.5.1.4 Prepositional relatives

The instrumental marker is a preposition when it accompanies nouns. In relative clauses, the preposition is put to the left edge of the RC, exactly like the postpositions. In RC with the *ənda*, *ayo* is always present.

- (202) a) *émmək* *ayo* [*(ə)nda* *ay=tə-dá=a*].  
 manner DET with 1s=FUT-do=3s  
 how I am going to do it. (Lit: manner with which...)
- b) *t-á-şşud* *ayo* [*(ə)nda* *ni=kkóos=a*]  
 F-SG-ax DET with 1s=cut=3s  
 the ax with which you cut it.

For possessor relativization see 4.5.4.2 below.

#### 4.5.2 Relativization of generic terms

This type of RC is formally not different from the restrictive type. One such generic term is *hé* 'thing' that can designate humans as well as animals in certain contexts. This is shown in the example below.

- (203) *ittilla hé* [*nín aa=ka*] *yeer-án* *ənd(a)*  
 each thing drink 3s=LOC vomiting-PL and  
*a-říbuku* *a=tə-kun(a)=a*.  
 SG-diarrhea 3s=FUT-find-3s  
 whoever (humans/animals) drinks from it, will get vomiting  
 and diarrhea.

##### 4.5.2.1 Existential expressions with relativization

The RC of an existential expression uses the same construction as shown in the previous sections. Expressions like 'nothing' and 'nobody' are based on the existential verb *ři* 'not be'. Relativization of such terms typically has the RC separate from the head noun by the existential verb:

- (204) *[bor(a) a=ffí] [máy i-múnas]*  
 person 3s=be.not own PL-camels  
*əndáŋga wij(i) l-dáksahak.*  
 if not.be PL-ethn.name  
 there is nobody who has camels except the Idaksahak.  
 (Lit: a person does not exist who owns camels...).

Likewise, with the noun *he* ‘thing’ the construction is the same.

- (205) *[h(e) a=ffí] [yáhal s(a) a-tə-mán-kaat-a]...*  
 thing 3s=be.not dare COMP 3s=FUT-approach-VEN=3s  
 nobody dared to approach it.... (Lit: a thing is not that  
 dared...)

The Tamasheq negative existential *wértilla* ‘there is not’ behaves differently. The term behaves like an unanalyzable particle in Tadaksahak. It precedes the noun whose non-existence it posits (4.4.3). In relative clauses with *wértilla*, the determiner *ayo* is present, even though the referent is indefinite. Note that EXM is present under the same conditions as discussed above.

- (206) a) *aya-bbáy sa wértill(a) á-mṇəs ayo*  
 1s-know COMP there.is.not SG-camel DET  
*[bb-azúurag t-ə-séeyay-an ka].*  
 IMPERF-be.free F-PL-season.kind-PL LOC  
 I know that there is no camel that is left free during hot  
 season.
- b) *wértilla bor(á) ayo [(ə)n-sə=bun]*  
 there.is.not person DET EXM-NEG.IMPERF=die  
 Nobody is immortal.
- c) *wértill(a) ayo [bbáaya s(a) ay=n*  
 there.is.not DET want COMP 3s=GEN  
*t-a-músek-k a-tə-n(á) a-ffó se.]*  
 F-SG-milking.animal-F.SG 3s=FUT-give SG-one DAT  
 there is no one who wants to give his livelihood to  
 someone else.

The last example shows no head noun.

#### 4.5.2.2 Relativization with *ho* ‘this thing’ and *né* ‘here’

The noun *ho* ‘this thing’ consists of the neutral noun *he* ‘thing’ and the determiner *o*, so it is a definite entity (4.1.3.5). However, *ayo* never

occurs following *hó*, any RC follows *hó* immediately unless a demonstrative (*sé*) is present. Likewise, *né* is never followed by *ayo*.

- (207) a) *əndár a=bbáy hó [báar(a) a=se*  
 if 3s-know thing.DEBR be.in 3s=DAT  
*aláxar] a=sə-d(á) áa=se he yibrár-an.*  
 next.world 3s=NEG.IMPERF-do 3s=DAT thing be.bad-ADJZR  
 if she had known what was in the next world for her, she  
 would not have done anything bad to him (her husband).
- b) *Ci na hó [ni=bbáaya]?*  
 QST be thing.DEBR 2s-want  
 what do you want? (*lit.* What is the thing you want?)
- c) *a=nə-dá hó (sé) [a=ccí].*  
 3s=NEG.PERF-do thing.DEBR (DEM.FAR) 3s=say  
 he did not do what (*lit.* the thing that) he said.

Example (c) above was not accepted by all informants without the presence of *sé* DEM.FAR.

The locative adverb *né* ‘here’ can also be relativized.

- (208) a) *ay=n biid-én ne [k(a) i=ddumb(ú) áŋga].*  
 3s=GEN bone-PL here LOC 3p=cut 3s.EMP  
 its bones were there where they had killed it.
- b) *...har né [k(a) i=hóoyay].*  
 until here LOC 3p=spend.day  
 ...until there where they spent the day.
- c) *né [k(a) ary-én i=kkáy] waf-én i=báara*  
 here LOC water-PL 3p=stop dirt-PL 3p=be  
 there where the water stops (running) is dirt.

For other uses of *né* ‘here’ see (4.4.2.1).

#### 4.5.3 Pronominal human referents

In the relativization of pronominal human referents (including speech-act participants) a linking marker is used. In this case, the particle *nó(o-da)* ‘there(-INT)’ is used. Constructions with *ayo* are considered ungrammatical, i.e., *\*nin ayo dáryal ni=mmó (a)-se* (2s.EMP DET be.blind 2s=hear 3s=DAT) ‘you who are blind, heard him.’ is not a possible sentence.

The following table lists the attested forms with *nó(o-da)*

(209) *Human referent markers*

	singular	plural
1 <sup>st</sup>	<i>ayay nóo-da</i>	<i>áari nóo-da</i>
2 <sup>nd</sup>	<i>nín nó(o-da)</i>	<i>ándi nó(o-da)</i>
3 <sup>rd</sup>	<i>ánga nó(o-da)</i>	<i>íngi nó</i>

According to our informants, the presence of the optional parts would insist either on the presence on the scene of the person (3<sup>rd</sup> person) or insistence (2<sup>nd</sup> persons). The RC following this marker has the same structure as other restrictive RC types.

## Examples

- (210) a) *ayáy nóo-da [jáv ana]*  
 1s.EMP there-INT help 2s.DAT  
*aya-bbáaya ní-n jáv t-oo-las-t.*  
 1s-want 2s-GEN help.VN F-SG-do.again-F.SG  
 I who helped you, I want your help in return.
- b) *nín nó [kár ayáy]ən-tə-kó kássaw*  
 2s.EMP there hit 1s.O 2s-FUT-go prison  
 you who hit me will go to prison.
- c) *ánga nó [b-záy]*  
 3s.EMP there IMPERF-steal  
*ánga záy a-kkeedí.*  
 3s.EMP steal.VN 3s-be.on  
 he who steals, he is accused of stealing.
- d) *áari nóo-da [bb-éfyəl] ar-sə-ηá.*  
 1p.EMP there-INT IMPERF-work 1p-NEG.IMPERF-eat  
 we who are working don't eat.
- e) *ándi nó [b-ηá] andə-sə-yífyəl.*  
 2p.EMP there IMPERF-eat 2p-NEG.IMPERF-work  
 (and) you who eat are not working.
- f) *íngi nó [kun(á) á-ŋaɣal]*  
 3p.EMP there find SG-work  
*íngi nə-ddéww-ət*  
 3p.EMP FOC-be.glad  
 they who found work, it's them who are happy.

In the corpus another use (topicalization) of independent pronouns referring to human referents with *nóo-da* is found (see 4.7.1.2 ex (240)).

Songhay of Gao has an optional /no/ particle followed by /ka/ for subject focus (or /no ma/), while /no/ is obligatory for non-subject fronted constituents followed by a clause (Heath 1999b:132). This focus marker may be at the origin of this particular form when pronominal human referents are relativized.

#### 4.5.4 *Non-restrictive relativization with sa*

A non-restrictive relative clause typically adds new information to the head noun. The RC itself is structurally a complete clause that is preceded by *sa* COMP (complementizer). *sa* is also used in complement clauses of verbs (4.3.10.3) and as topic marker in equational clauses (4.7.1.1). The RC follows the noun it modifies immediately unless there is a postposition following it or a restrictive RC modifying the same head noun. This construction is the only possible way to relativize possessors.

##### 4.5.4.1 *Subject and object*

In the first example, the subject of a transitive clause is relativized. The function of the relative clause is not to identify which woman he married, but to give additional information about her:

- (211) *a-zzáw surgóy fo*  
 3s=take woman IND  
*sa [ítilla záyri a-tə-ŋá i-múŋas iŋŋá].*  
 COMP each day 3s=FUT-eat PL-camel seven  
 he married a certain woman, who (once they were married) used to eat seven camels a day.

The following example also shows the subject of a transitive clause that is relativized. The relative clause gives additional information about the specific place called 'Indeliman':

- (212) *Idéeləman dáy ka s(a)*  
 loc.name too LOC COMP  
*[a=yyagór t-ə-mé-zday].*  
 3p=be.bigger F-PL-RECI-dwell  
 (they live) also in Indeliman, which is bigger than the (named) dwelling places.

In the following example, the relative clause introduced with *sa* has embedded another relative clause that modifies the quantifier ‘one’ from which it is separated by the negative existential *-fi* (see more examples in 4.5.2.1).

- (213) *a-mmáy ay=n izacén-an kaaṛáḍ*  
 3-own 3s=GEN young.man-PL three  
*sa [a-ffó a=ʃfi=i*  
 COMP SG-one 3s=be.not=3p  
*[b-déeraw a-ffó (ə)nda naná]].*  
 IMPERF-have.in.common SG-one with mother  
 he had three sons, of whom there was not one who had  
 the same mother. (Lit: one was not that had in common  
 the mother with another)

The next examples illustrate the regular structure when the non-restrictive RC contains a focalized subject. Generally it is the object of the main clause that is relativized on but a shift of focus happens inside the RC. The object of the main clause is always marked with *ayo* DET that is followed by *sa*. This resembles the regular restrictive RC construction where a demonstrative-like marker follows the head. However, this type of *sa* RC always adds new information to the NP. The pragmatic effect of this kind of RC is to direct the hearers’ attention from the subject of the main clause to the subject of the relative clause, i.e. ‘young man’ or ‘people’ in the examples below.

- (214) a) *a-háaʃi-an iizac(e) ayo*  
 3s=look-ALL young.man DET  
*s(a) [áŋga nə-mmáy t-a-bákar-t]...*  
 COMP 3s.EMPH FOC=own F-SG-ewe-F.SG  
 he looked towards the young man, that who owned the  
 ewe...
- b) *a-tə-yídhəl bor-én əndaɣo*  
 3s=FUT-help person-PL DET.PL  
*s(a) [íŋgi nə-b-húrr(u) alxér]*  
 COMP 3p.EMP FOC-IMPERF-take peace  
 he will help the people, those that seek peace.

The relativized constituent in the following example is an unmarked indirect object (see 4.3.8). The relative clause introduced with *sa* gives additional information about the woman who has already been identified earlier in the story. (For the irregular behavior of *ná* OPP see 4.1.3.6):



- (215) *wáy ná ayo*  
 woman OPP DET  
*sa [t-a-cídaw-t a-b-s-əkn(á) aṛméni]*  
 COMP F-SG-bird-F.SG 3s=IMPERF-CAUS-show suffering  
*a=ccí...*  
 3s=say  
 the other woman, to whom the small bird was showing  
 suffering, said...

#### 4.5.4.2 Possessor relativization

Possessors cannot be relativized by means of the regular restrictive strategy described above. Instead, relativization with *sa* COMP is used. Although most examples of this type in the corpus contain non restrictive clauses, it may also appear with restrictive clauses. It thus constitutes an exception to the generally non restrictive semantics of RC constructions with *sa*.

In the first example, the RC consists of an equational clause. The possessive pronoun *ay=n* 'her' is correlative with the head noun that is an indirect object of the main clause.

- (216) *a-b-f-ijken-an áy=n nana se*  
 3s=IMPERF-CAUS-greet-ALL 3s=GEN mother DAT  
*s(a) [ay=n mán Amínata].*  
 COMP 3s=GEN name prop.name  
 he greets his mother, whose name is Aminata.

In the following example, the *sa* strategy is found with an indefinite but established referent to which the possessor refers. In this case, *sa* introduces a restrictive RC.

- (217) *banjú [s(a) ay=n míy(a) a=yyibrár]*  
 well COMP 3s=GEN mouth 3s=be.bad  
*waf-én i-bb-éd áa-ka*  
 dirt.kind-PL 3p=IMPERF-return 3s=LOC  
 a well that has a bad opening (without wall), dirt falls in it.

In the following example, the subject of the non restrictive RC ('her house') contains the possessive pronoun that correlates with the head noun. A restrictive RC follows the same head noun immediately.

- (218) *maan(á) émmək ayó (ə)nda ar-tə-guná*  
 where manner DET with 1p=FUT-see  
*[wáy báar(a) i-zínn-an],*  
 woman be.in PL-sky-PL  
*s(a) [áy=n húgu a=f-keedí t-a-záyan-t ən*  
 COMP 3s=GEN house 3s=IMPERF-be.up F-SG-mast-F.SG GEN  
*míya kuk(ú)-an]?*  
 end be.long-ADJZR  
 how are we going to see the woman in the sky, whose  
 house is up at the end of a long mast?

The constituent that contains the possessive pronoun that correlates with the head noun may be fronted. When this happens, a resumptive pronoun appears in the relative clause in the normal position of the constituent. In the following example, 'his eyes' is fronted and immediately follows *sa*. The resumptive pronoun clitic *í=* occurs in its normal place, immediately preceding the postposition *ka*.

- (219) *aya-ggun(a) a-záazib s(a)*  
 1s=see SG-phantom COMP  
*[áy=n mó-(e)n húur(u) a-b-d(á) í=ka]*  
 3s=GEN eye-PL fire 3s=IMPERF-do 3p=LOC  
 I saw a phantom, in whose eyes fire was burning.

Contrast the following examples, in which the constituent that contains the co-indexed possessive pronoun occurs in its normal position in the relative clause:

- (220) *aya-ggun(a) [a-záazib dá f-íkʃd] sa*  
 1s=see SG-phantom do CAUS-fear.VN COMP  
*[húur(ú) á-b-d(á) áy=n mó-(e)n ka]*  
 fire 3s=IMPERF-do 3s=GEN eye-PL LOC  
 I saw a phantom that causes fear, which had fire in his  
 eyes...

In the following example the object of 'you want', present as a verbal noun, is relativized. The idiom *da tanəfust bora se* 'to tell somebody a story' (do story person DAT) can only be relativized on this way. The verb (to do) is nominalized and with the possessor refers to the story.

- (221) *aywa, d(a) ayáy t-á-nəfus-t ayó*  
 well do 1s.IO F-SG-story-F.SG DET  
*sa [ni-bbáay(a) ay-n dá]]!*  
 COMP 2s=want 3s=GEN do.VN]  
 so, tell me the story [on tape], that which you wanted to  
 tell (me)!

#### 4.6 Negation particles

In the chapter on the MAN (Mood-Aspect-Negation) markers the basic negations on the verb were presented (4.2.4). This section is dedicated to complex negations that are formed with a MAN marker negation on the verb and an additional particle in the clause. There are no structural similarities that link them all to one particular class, it is more the semantic feature of ‘negation + X’ that groups them together. ‘never’ ‘not at all’ and ‘except’ are concepts found with this construction. ‘Nobody’ and ‘nothing’ can be traced to negative clauses that are now used in the nominal slot of the clause. Some of the particles need some other kind of negated form in the clause to be interpreted correctly.

##### 4.6.1 *kəlá* ... *nə-* ‘never’

The particle *kəlá* ‘once’ together with the negation on the verb, results in the reading ‘not once’ with the free translation ‘never’.

The examples in the corpus are all combined with the NEG.PERF *nə-*.

- (222) a) *...kəlá ay-nə-mó*  
 once 1s=NEG.IMPERF-hear  
*t-a-səwəl-t ən táatab se.*  
 F-SG-whet-F.SG GEN sew.NV DAT  
 (since I live) ... I have never heard that one sews with a  
 stone.
- b) *kəl(á)a-nə-hun(ú) ay-n húgu daw*  
 once 3s=NEG.PERF-leave.from 3s=GEN tent LOC  
 he has never left (the area) around his tent.

Without the negation it is frequently used in the introductory sentence to a folktale with a free translation ‘There was once...’

- (223) *i=ccí kəlá wáy fó n(e) adí...*  
 3p=say once woman IND place ANA  
 there was once this woman... (lit: it is said once a certain woman there ...)

The particle may be repeated in this position.

#### 4.6.2 *nə- ... fow 'not at all'*

The particle *fow* is always at the end of a negated clause and set off with a short pause from the rest of the utterance. It intensifies the negated fact of the utterance. It is also found with other negations on the verb (e.g. 'never') and can intensify them. In context, even by itself, the particle can intensify a negated fact. This use is illustrated further down in example (227).

- (224) a) *áy=nə-fəlás=a fów!*  
 1s=NEG.PERF-believe=3s at.all  
 I don't believe it at all!
- b) *kəlá bor-én i=nə-gun(á) áy=n ci fów!*  
 once person-PL 3p=NEG.PERF-see 3s=GEN likeness at.all  
 never ever have people seen its (Hare's intelligence) likeness.

#### 4.6.3 NEG + *har* 'except'

A semantically weak exception is encoded with *je* 'only' discussed below (4.7.4.4). The preposition *har* 'until', together with a negation on the verb or a verb with a negative meaning, conveys the exception that could also be translated as 'not but'. The first example below is with the plain negation on the verb (for the inversion of *PRN-ənda* followed by a nominal constituent see 3.2.7.11.2.2). The second example shows the use with *yába* 'lack'. This verb can be read as a negation for the subordinate finite verb. *yába* is interpreted with an impersonal 3s clitic. The last example shows *har* 'until' between clauses and *har* 'except' preceding a noun.

- (225) a) *a=nə-yíkkəl-kat í=(ə)nda jé har*  
 3s=NEG.PERF-lift-VEN 3p=with only until  
*i-mázzur-an.*  
 PL-horse.dropping-PL  
 he served them nothing but droppings.

- b) *a=yyába s(a) aya=b-guná har*  
 3s=lack COMP 1S=IMPERF-see until  
*í=n hanj-én ənd(a) i=n t-é-lank-an*  
 3p=GEN ear-PL and 3p=GEN F-PL-tail-PL  
 I cannot see but their ears and their tails = I can only see their...
- c) *a=b-ŋ(a)=í har á=bbeen=i*  
 3s=IMPERF-eat=3p until 3s=finish=3p  
*har a-fédda d(a) asénda.*  
 until SG-one.only INT DEM.FAR  
 he (Jackal) was eating them (young warthogs) until he had finished them except for only that one.

Also consider the examples (231)c and (234)b below.

When the exception is an action the complement clause particle *sa* has to be present after *har*.

- (226) a) *hímay ən íiget a-sé-mmay alʕib ká*  
 wash.VN GEN excess 3s=NEG.IMPERF-have fault LOC  
*har sa (ə)n-tə-hímay héw ká.*  
 until COMP 2s=FUT-wash wind LOC  
 there is no danger in washing a lot except that you wash (yourself) in the wind.
- b) *a=ccí wértilla jé hár s(a)*  
 3s=say there.is.not only until COMP  
*a=tə-yíñkəm áy=n aru ká.*  
 3s=FUT-reign 3s=GEN man LOC  
 she wanted absolutely nothing but reign over her husband.

The following dialogue illustrates several of the negations discussed above in a short exchange.

- (227) Q: *ák kəlá ni-gguná Bamakoy?*  
 QST once 2s=see loc.name  
 Have you ever seen Bamako?
- A: *kəláakəla!*  
 no  
 No!
- Q: *ənda Gawgaw?*  
 and loc.name  
 And Gao?

A: *kəláakəla kəlá aɣ=nə-guná hár Mənəka.*  
 no once 1s=NEG.PERF-see until loc.name  
 No, I never saw (anything else) but Menaka.

Q: *Yamay?*  
 loc.name  
 Niamey?

A: *fów fów Mənəka jé*  
 at.all at.all loc.name only  
 Not at all, not at all, only Menaka

#### 4.6.4 NEG + *wala* 'not even'

The preposition *wala* together with a negation on the verb can be translated as 'not even'. The negation is crucial for this reading.

(228) a) *a=nə-guná wal(a) á-ffooda*  
 3s=NEG.IMPERF-see without SG-one  
 he didn't even see one.

b) *a=sə-bay t-a-wál-an ka wala*  
 3s=NEG.IMPERF-know F-SG-language-PL LOC without  
*h(e) a-ccéena*  
 thing 3s=be.small  
 he doesn't even know a little bit of (other) languages.

#### 4.6.5 NEG- .... *jeddí* ~ *ceddí* 'not yet'

The particle *jeddí* ~ *ceddí* has several functions, all of them related to time. Examples for preverbal 'yet' are found in 4.8.4.7. When following a negated verb, the construction NEG-verb *jeddí* is translated into English by 'not yet', e.g.

(229) a) *a=nə-tén jeddí*  
 3s=NEG.PERF-arrive yet  
 he hasn't arrived yet.

b) *aɣ=n a-lámad a=nə-yimád jeddí.*  
 1s=GEN SG-learn 3s=NEG.PERF-be.complete yet  
 I have not yet finished learning.

c) *báarar a=sə-báy á-bbaş ceddí.*  
 child 3s=NEG.IMPERF-know SG-chew yet  
 the child cannot yet chew.

#### 4.6.6 Negative constructions with *ǵi* and *wértilla*

Both particles were introduced in the section about existential expressions (4.4.3). In this section we will discuss how they are used on clause level to negate items or actions.

##### 4.6.6.1 *h(e) a=ǵǵi / bor(a) a=ǵǵi* 'nothing/nobody'

To understand the functioning of the negation we need to understand the positive statement first. A non-specified entity is often represented by the word *hé* 'thing'. This may refer to a human, animate or inanimate entity. In the following example the positive and negative statement are given.

(230) a) *a=ccí*      *hé*  
 3s.=say      thing  
 he said something.

b) *a=nə-cí*      *hé*  
 3s.=NEG.PERF.=say      thing  
 he said nothing

However, when the part 'nothing' is emphasized a different construction is used. The negative existential copula *ǵi* together with *hé* 'thing' is fronted as a unit.

(231) a) *h(e) a=ǵǵi*  
 thing 3s.=not.be  
 there is no thing = nothing

b) [*h(e) a=ǵǵi*]      *a=cc(i)*      *áa=se*  
 thing 3s.=not.be      3s.=say      3s.=DAT  
 she said nothing to him.

c) [*h(e) a=ǵǵi*]      *b-éli-kat*      *íi=ka*      *har...*  
 thing 3s.=not.be      IMPERF-go.out-VEN 3p=LOC      until  
 nothing sticks out of them except... [Lit: nothing there is  
 that sticks out of them except...]

The whole clause behaves like a noun that can be preposed to a clause (b) when functioning as a direct object, or be followed by a relative clause (c).

Parallel to the construction with *hé* 'thing' the noun *borá* 'person' can express 'somebody' or 'nobody'.

(232) a) *aɣa-gguná borá*  
 3s-see person  
 I saw somebody.

b) *aɣ-nə-guná borá*  
 1s-NEG.PERF-see person  
 I didn't see anybody. = I saw nobody.

When 'nobody' is the topic, it must be expressed with the existential copula *ʃi*. Any comment following 'nobody' is a relative clause modifying 'person'.

(233) a) *bor(á) a-ʃʃi*  
 person 3s-be.not  
 there is no person = nobody

b) *[bor(á) a-ʃʃi] máy i-múnas*  
 person 3s-be.not own PL-camel  
*ənd-áŋga wij(i) l-dáksahak.*  
 with-3s.EMP is.not PL-ethnic.name  
 nobody owns camels except the Idaksahak.  
 (Lit: a person does not exist who owns camels if it is not the Idaksahak).

c) *[bor(á) a-ʃʃi] léelaw ənd(a)-á.*  
 person 3s-be.not talk with=3s  
 nobody talks with him.

#### 4.6.6.2 wértilla 'there is not'

This particle was introduced in 4.4.3. Here some special uses are examined. Together with *hé* 'thing' and *borá* 'person', the particle *wértilla* conveys 'nothing' and 'nobody', respectively. As with the *ʃi* copula, these are pragmatically strongly marked entities.

(234) a) *wértilla he b-máazal...*  
 there.is.not thing IMPERF-be.sent  
 there is nothing that happens...

b) *wértilla borá nə=mmáay=a har*  
 there.is.not person FOC=OWN=3s until  
*ándi nó báara(-a?) yízday áa-ka*  
 2pO there exist(-3s?) live 3s=LOC  
 there is nobody [focus] who owns it (land) except you  
 there who are (in it?), live in it.

*wértilla* sometimes takes a complement clause.



- (235) *wértilla s(a) alhakúmat a-kkó*  
 there.is.not COMP government 3s-go  
*(ə)nd(a) a-hándag káamil*  
 with SG-place all  
*ənd-áŋga wij(i) ənd(a) áy-n kó-(e)n*  
 with-3s.EMP is.not with 3s-GEN owner-PL  
 it does not happen (exist) that the government goes to  
 every place except with its owners.

The logical parallel to this construction with the negative copula *jí, a-ǰǰí sa* 'it is not that', does not seem to exist.

## 4.7 Information Structure

In this chapter the strategies for topicalization, focalization and interrogatives are described. In addition some particles are presented that have emphasizing or other discourse functions.

### 4.7.1 Topicalization

There are two different strategies for topicalization on clause level. One is used for non-verbal constructions and the other for clauses with verbs.

#### 4.7.1.1 Equational constructions

The constituent that is topicalized in an equational construction is marked with the COMP *sa* when it is an independent (EMP) pronoun. When it is a noun it is followed by the corresponding (sg or pl) independent pronoun and the *sa* COMP marker.

The following examples show different contexts: a) plain equational clause, b) with a question particle, c) with additive, d) with additional information to the complement and e) with a plural referent. The bar / indicates that a pause in the flow of the utterance happens at that point.

- (236) a) *áŋga s(a) a-mənóokal.*  
 3S.EMP COMP SG-ruler  
 it was him who was the chief.
- b) *áa-har / ák áŋga sa tárra nn ízzay*  
 SG-lion QST 3S.EMP COMP bush GEN son  
 the lion [topic], is it him who is the 'son of the bush'?

- c) *áŋga* *dáy* / *áŋga* *s(a) íizace*  
 3s.EMP too 3s.EMP COMP youth  
 he too, he was also a young man (of good qualities).
- d) *áŋga* *s(a) ay=wáni* *t-a-báyor-t*  
 3s.EMP COMP 3s=of F-SG-wealth-F.SG  
*hé yíyləl-an*  
 thing be.eternal-ADJZR  
 (earth) it's this its very own wealth, (it is) a thing that lasts.
- e) *lǎéeləman* / *íŋgi* *s(a) ay=n gánda*  
 loc.name 3p.EMP COMP 3S=GEN land  
 (other place names...) I., it's them that are his land.

#### 4.7.1.2 Nominal constituents

Constituents that are topicalized in clauses containing a verb have no special marker. They are preposed to the clause and set off with a short pause (marked as / ) before the clause itself is uttered.

When topicalized subjects are pronouns, they are preposed to the clause in the independent form.

- (237) *nín* / *ni-ddiní-kat árə-n* *ṭaamú.*  
 2s.EMP 2s=take-VEN 1p-GEN slave  
*áari* / *arə-ssə-nnə-frən-kat* *arw-én.*  
 1p.EMP 1p=CAUS-RECI-be.chosen-VEN man-PL  
 (as for) you, you took our slave, (but) we, we have chosen  
 (real) men.

When objects are fronted an in situ resumptive pronoun appears.

- (238) a) *báarar* / *bukáari n sǎgni a=f-keed(i)-á*  
 child<sub>i</sub> turban.kind GEN indigo 3s=IMPERF-be.on=3s<sub>i</sub>  
 the child, there is indigo of the turban on it.
- b) *ayá-n* *cay* / *t-aa-ḍás-t* *a-kkaar-á*  
 1s=GEN leg<sub>i</sub> F-SG-tire-F.SG 3s=hit=3s<sub>i</sub>  
 my leg, it went to sleep. (*Lit.*: fatigue hit it)
- c) *bor-én* *áyda* / *ən-sə-kó*  
 person-PL<sub>i</sub> DEM.PROX 2s=NEG.IMPERF-can  
*ni=b-zí-mmiz(i)-i*  
 2s=IMPERF-CAUS-be.separated=3p<sub>i</sub>  
 these people, you cannot separate them.

The topicalized constituent may be reinforced by an emphatic pronoun followed by the intensifier *dá* ‘precisely, exactly’ (239), *nóo-da* ‘there-precisely’ (240)a-c) or the shorter form *nó* ‘there’ (240)d) mostly with plural referents.

- (239) a) *i-s-úudar / íngi dá / h(e) a-ffí*  
 PL-INST-live<sub>i</sub> 3p.EMP<sub>i</sub> INT thing 2s-not.be  
*(ə)n-tə-s-əsh(a)-i har t-á-zdək-k.*  
 EXM-FUT-CAUS-be.strong=3p<sub>i</sub> until F-SG-be.clean-F.SG  
 food, as for it, there is nothing that makes it strong except  
 cleanliness.
- b) *alíkaf / ánga dá / a-báar(a) addéwəl fó.*  
 horse.saddle<sub>i</sub> 3s.EMP<sub>i</sub> INT 3s<sub>i</sub>-be country one  
 As for the saddle, it was in another country.
- c) *t-é-mgad-an / íngi dá / íngi kaarád*  
 F-PL-girl-PL<sub>i</sub> 3p.EMP<sub>i</sub> INT 3p.EMP<sub>i</sub> three  
 As for the girls, they were three.
- (240) a) *ayáy nóo-da aya-bb-ogá huurú...*  
 1s.EMP there-INT 1s-IMPERF-perceive fire  
 I here, I see a fire (in the distance)...
- b) *ayá-n nana nin nóo-da ní-n mó...*  
 1s-GEN mother 2s.EMP there-INT 2s-GEN face  
 my mother, you there, your face ...
- c) *s(a) ánga nóo-da a-dding(á)-an*  
 COMP 3s.EMP there-INT 3s-forget-ALL  
*áy-n kərtába banqu bé*  
 3s-GEN trousers well LOC  
 (he remembered) that, he there, he (had) forgot(ten) his  
 trousers at the well.
- d) *i-kúufar íngi nó i-ddá hó sé*  
 PL-European 3p.EMP there 3p-make thing.DEBR DAT  
*aníyat*  
 attention  
 Europeans, they there (as for them), they pay attention to  
 this.

## 4.7.1.3 Verbal nouns

Verbs can be topicalized by preposing the corresponding verbal noun to the beginning of the clause and substituting the main verb with the light verb, *kás* 'to be' or *dá* 'to do'.

- (241) a) *a-ṅágad /*  
 SG-put.turban  
*a=kkás Idáksahak ən t-á-ggas-t.*  
 3s-be name GEN F-SG-guard-F.SG  
 putting on a turban is a custom of the Idaksahak.
- b) *a-ṣátək ar-n i-bíyay i-ddá*  
 SG-be.dried.up 1p=GEN PL-water.skin 3p-do  
*zérooda a-ss-érmay áari.*  
 today 3s=CAUS-have.fear 1p.O  
 our water skins are so empty today that this makes us  
 afraid. (*Lit:* the drying up our water skins do ...)
- c) *á-hoora a-dd(a) íi-se har a-ṭṭáaw=i*  
 SG-pursue 3s=do 3p=DAT until 3s=reach=3p  
*ban̄gu bé.*  
 well LOC  
 he pursued them (by following their footprints) until he  
 reached them at the well.

In comparative constructions the quality is given as a verbal noun and so constitutes the topic of the clause. Structurally this is the same as the above clauses except for the use of 'be more' instead of the 'be' and 'do' verbs.

- (242) *ay-n a-fəlcéqu a-yyagór ná ayo wáni*  
 3s=GEN SG-be.flat 3s-be.more OPP DET of  
 this (receptacle) is flatter than that one (*Lit:* its flatness is  
 more than...)

## 4.7.2 Focalization

Under focalization we understand that one constituent of a clause is highlighted and marked by syntactic means as the important information in this clause.

Syntactic focalization in Tadaksahak is attested for NPs (including adverbials), PPs and verbs.

The focalized constituent is fronted to the position immediately before the verbal word. There is no special marker for this constituent except for the subject. In addition to the left movement the constituent is uttered with a higher pitch than an undisplaced constituent.

- (243) *ay-sə-hurrú* *taym-én*  
 1s=NEG.IMPERF-look.for sandal-PL  
*í-səlsa* *aya-b-hurrú*  
 PL-clothe 1s=IMPERF-look.for  
 I am not looking for sandals, it's clothes I am looking for.

#### 4.7.2.1 Subject focalization

When a subject is focalized a particle *nə*- FOC (focus) (*ən*- before CV-shaped MAN markers) replaces the regular subject clitic. While similar to the extraction marker in relative clauses (see 4.5.1), its syntactic behavior is not identical. The extraction marker only occurs in subject relative clauses that contain a verb form with a MAN marker of the shape CV-. The focus marker, on the other hand, also appears with unmarked perfectives (e.g. (244)b).

Subject pronouns that are focalized take the independent form of the pronoun. As with focalized nouns, in such cases the FOC particle is inserted before the verb. Examples of pronouns in focus are given in (244) and examples of nouns in focus are given in (245)

- (244) a) *ayáy nə-b-d(á)-a* *ay=n* *t-í-nzar* *ka*.  
 1s.EMP FOC=IMPERF-do=3s 3s=GEN F-PL-nostril LOC  
 it's me who puts it in his nostrils.
- b) *nín* *nə=yyílmən=a*.  
 2s.EMP FOC=promise=3s  
 it's you who promised it.
- c) *áŋga* *nə-hun(ú)* *adínit* *jinjiná*  
 3s.EMP FOC=leave.from world first  
 it's him who died first.
- d) *áŋga nə=f-káw* *haamú* *biid-én* *be*  
 3s.EMP FOC=IMPERF-take.from meat bone-PL LOC  
 it's him (dog) who takes meat from (on) the bones.
- e) *áŋga* *nə-dduwá*.  
 3s.EMP FOC=be.better  
 it's this (action) that is good/better.

- f) *ári nə-zzáw-kaat-a.*  
1p.EMP FOC=take-VEN=3s  
it's us who brought it.
- g) *ándi nə-dd(á) áa-se h(e) adí*  
2p.EMP FOC=do 3s=DAT thing ANA  
it's you (pl) who did this to him.
- h) *íngi nə-ssúr-a mán ayo óod(a) Áffud wáni.*  
3p.EMP FOC=put.on=3s name DET DEM.NEAR loc.name of  
it's them who gave it this name of Affud.
- i) *ánga (ə)n-tə-soorá cígooda.*  
3s.EMP FOC=FUT-milk tonight  
it's her who will milk tonight.
- (245) a) *baarí n í-fkar-an nə-şş-əñkəṛ-kat*  
horse GEN PL-nail-PL FOC=CAUS-get.up-VEN  
*í-(ə)nda n á...*  
3p=with SEP 3s  
it was the horse's hooves that made it (storm) come up  
towards them.
- b) *har a-ffóo-da nə-ggorá-kat íi-ka t-a-wíddi-t*  
until SG-one-INT FOC=sit-VEN 3p=LOC F-SG-foal-F.SG  
except one that was left of them, a foal.
- c) *h(e) áyda nə-yyízl(a)-i*  
thing DEM.PROX FOC=occupy=3p  
it was this (an action) that occupied them
- d) *wij(i) i-múnsuw-an nə-zzáw-kat ayáy*  
is.not PL-food-PL FOC=take-VEN 1s  
it is not (the existence of [good]) food that took me here

The particle may be cognate with the Songhay focus marker /na/ (Timbuktu). In Mainstream Songhay, this particle is found marking non-subject elements (Timbuktu), or is optional with subjects (Gao).

#### 4.7.2.2 Object focalization

When an object is focalized, it is extracted from its original place and put before the verbal word. There is no focus marker following the constituent and after the inflected verb no resumptive object clitic marks the place of the extracted NP.

- (246) a) *áŋga*      *aya-kkár.*  
 3s.EMP      1s=hit  
 it's him I hit.
- b) *nín*      *aya-gguná*  
 2s.EMP      1s=see  
 it's you I saw.
- c) *taym-én*    *aya-bbáaya*  
 sandal-PL    1s=want  
 it's sandals I want.

#### 4.7.2.3 Focalization of adpositional complements

Adpositional phrases are fronted as a whole. The independent series of pronouns is used in these constructions.

Focus of dative complements

- (247) a) *ayáy /*      *nín*      *s(e)* *aya-kkóy-kat.*  
 1s.EMP      2s.EMP      DAT    1s=leave-VEN  
 as for me [topic], it's for you [focus] that I came here.
- b) *wiji*      *nín*      *se*    *aya-f-cí*  
 is.not      2s.EMP      DAT    1s=IMPERF-say  
*bor-én*    *ayonda-nó yóru*      *wán-en*      *se*  
 person-PL    DET.PL-there old.VN      of-PL      DAT  
 it is not to you [focus] I speak, (but) to those people of old times.

Note the syntax of the last example and compare it with (245)d) above where the particle *wiji* is posing the non-existence of the focalized constituent.

Focus of locative postpositions

- (248) a) *húgu* *k(a)*    *a-ŋ-ínf(á)-a*  
 house    LOC      3s=CAUS-put.down=3s  
 it's in the house [focus] that s/he put it down.
- b) *áŋga*      *k(a)*    *a-ss-ékkələl*    *har...*  
 3s.EMP      LOC    3s=CAUS-cry until  
 in it (moment) [focus] it (bird) cried until...
- c) *ní-n*      *a-hácet*    *b(e)* *a-zzumbú*  
 2s=GEN      SG-tent      LOC    3s=descend  
 it's on your tent [focus] that it (bird) landed.

- d) *ánga be komín-tan i-ddá*  
 3s.EMP LOC commune-PL 3p=make  
 because of that [focus] communes are made.
- f) *ándi daw ay-tə-zumbú*  
 2p LOC 1s-FUT-go.down  
 it's at your place [focus] that I will stay.

Instrument focalization follows a different path. The expected fronting of a bare noun with preposition \**ənda bundú* 'with a stick' is ungrammatical. Instead, a strategy similar to relative clause formation is used: the focused element is followed by the DET marker *ayo* and the preposition switches place and follows the noun and the DET marker. This is found both with focused definite and with focused indefinite nouns. When the focused item is an independent pronoun, DET is absent and *ənda* follows the pronoun.

Focus of instrumental *ənda*

- (249) a) *a-ná-z-may ayó (ə)nda bor-én i-f-ťáaťab*  
 SG-ACT-CAUS-sew DET with person-PL 3p=IMPERF-sew  
 it's with a needle [focus] that people sew.
- b) *he (a)yo sénd(a) ənda*  
 thing DET DEM.FAR with  
*bor-én i-b-wí áa-har*  
 person-PL 3p=IMPERF-kill SG-lion  
 it's with that thing (a spear) [focus] people used to kill a lion.
- c) *éndal / áng(a) ənda*  
 pricker 3s.EMP with  
*bor-én i-bb-əzwál almán.*  
 person-PL 3p=IMPERF-brand.mark herd  
 a pricker [topic], it's with it [focus] that people brand the animals (of the herd).

#### 4.7.2.4 Verb focalization

Verbs can be focalized when the need arises to insist that a different action than the one uttered is at the center of attention, e.g. A: "has she left?" B: "(No), she sleeps". When stative verbs are focalized, this expresses an intensification of the state.

Syntactically the bare verb stem is preposed to the inflected verb. Since verbs with Songhay cognates take no morphology when



nominalized they do not indicate if the verbal noun or the verb stem is fronted. However, stems of Tamasheq origin clearly show that the verb stem itself, and not a nominal form, is pre-posed to the inflected verb. The verbal noun of the first example is *á-ǰǰaǰal* 'work' < *yǰǰaǰal* 'to work'. From (c) onwards the examples are from texts. The translation line shows the verb in capitals in order to indicate the focused element in the translation.

- (250) a) *yǰǰaǰal*      *aǰa-bb-éǰǰaǰal*  
 work              1s=IMPERF-work  
 I am WORKING.
- b) *t-á-ngud*    *ná*    *aǰo*    *dút*              *a-b-dút*  
 F-SG-girl    OPP    DET    pound              3s=IMPERF-pound  
 that girl is POUNDING.
- c) *gun(á)*      *i-gguná*      *íizac(e)*      *asénda*      *n*  
 see              3p=see      youth              DEM.FAR      GEN  
*a-mázgol...*  
 SG-beauty  
 they SAW that young man's beauty... (and stayed)
- d) *h(e)* *a-ǰǰí*      *kun(á)*      *áari*    *ǰá*      *ar-sə-ǰá*  
 thing 3s=not.be    find              1p    eat      1p=NEG.IMPERF-eat  
 we are not ill, (but) we do not EAT.
- e) *ak*    *nín*              *dáǰal*      *ní-ddaǰal?*  
 QST 2s.EMP      be.blind      2s=be.blind  
 as for you, are you totally blind?
- f) *t-é-mǰad-ən*      *asénda*  
 F-PL-girl-PL              DEM.FAR  
*kéǰəkəǰ*              *i-sə-kéǰəkəǰ.*  
 have.shame              3p=NEG.IMPERF-have.shame  
 those girls, they have no shame at all.
- g) *báy*    *ǰam*    *aǰ-sə-báy*              *émǰək*      *aǰó (ə)nda...*  
 know EXCL 1s-NEG.IMPERF-know manner      DET with  
 I really don't know how...

The verb *báy* 'know' is also used with this structure to express the opposite of the expected 'really know/know very well'. This particular expression must be an idiomatic use: *báy aǰa-bbáy!* 'How can I know!'

#### 4.7.2.5 Focalization of adverbial NPs

Like all the other constituents, adverbials are preposed to the verbal word when focalized. See examples below.

(251) a) *táffak ar-tə-máqqəs néeda.*  
 tomorrow 1p=FUT-meet here  
 it's tomorrow (that) we will meet here.

b) *álməz a-ttén*  
 dusk 3s= arrive  
 it's at dusk (that) he arrived.

#### 4.7.3 Interrogatives

Polar interrogatives (yes/no questions) are either declarative clauses with interrogative intonation or an optional yes/no question particle is present.

For another type of yes/no question, a tag question particle is used, that implies that the polar interrogative is answered by a confirmation.

WH interrogatives (content questions) are formed on the basis of two question words that are combined with other elements to form the whole array of needed question words.

##### 4.7.3.1 Yes/no interrogatives

A polar interrogative may simply be an indicative clause with interrogative intonation, i.e. a raising tone contour towards the end of the utterance.

(252) a) *nín bəkáw méy anǧálos?*  
 2s jinn or angel  
 are you a jinn or an angel?

b) *i-bóray-an i-kkán ənda nín?*  
 PL-wild.date-PL 3p=be.sweet towards 2s  
 do you like (to eat) wild dates?

Otherwise, one can use an interrogative particle that precedes the clause. Two forms are attested, both have cognates in Tamasheq. *ák* is used around Menaka and in the east while *igán* is found in texts from Talatayt.

- (253) a) *ák i-bíyaɣ i-ttén*  
 QST PL-water.skin 3p=arrive  
 have the (donkeys with the) water skins arrived?
- b) *ák t-ée-laq-q nə=ηηá nín*  
 QST F-SG-knife-F.SG FOC=eat 2s  
 is it a knife that cut you?
- c) *igán taamú aya=kkás*  
 QST slave 1s=be  
 am I a slave?

#### 4.7.3.2 Tag questions

This type of yes/no question presupposes that the statement with the added tag is true and will be confirmed. The tag element is *wiji* 'it is not', which is added at the end of a statement with rising question intonation.

- (254) *Muss(a) a-ttén wiji?*  
 M. 3s=arrive is.not  
 M. has arrived, isn't it?

A very strong 'tag' is sometimes used to indicate the wish of the speaker to evaluate the truth of a statement.

- (255) *ciimí wala tangar-én?*  
 truth or lie-PL  
 is it true or false?

#### 4.7.3.3 WH questions

There are only three basic question words that are used in combination with different nouns and 'be' connectors to express the usual expected array of information questions.

- (256) *WH-question words*
- |                   |                             |
|-------------------|-----------------------------|
| <i>ci</i>         | who/what                    |
| <i>man (+ ná)</i> | 'where' (< Songhay)         |
| <i>man + N</i>    | 'which' + noun (< Tamasheq) |

*ci* is found with a 'be'-connector or a full verb as well as a temporal noun. The locative question is formed with elements from Songhay, while the second *man* is a loan from Tamasheq and is always followed by a noun.

4.7.3.3.1. *ci* 'who?/what?'

This question word is the first element of the sentence unless it is preceded by a topicalized constituent. It can replace the subject clitic on a verb or must be followed by the 'be'-connector *na*. *Na* is always followed by a (pro-)nominal element that may be a cliticized 3s pronoun *=a* (or rarely *an̄ga*, the independent pronoun), or the DET marker *ayo* to refer to a human referent or *ho* (thing.DEBR) to a non-human referent. Subject and object positions can be questioned depending on the validity of the verb in the cleft sentence. When other complements are questioned, the corresponding PP is fronted. Examples and discussion to the different types are below.

When *ci* replaces the subject clitic it asks for the identity of a person (257) and is a subject question.

- (257) a) *ci mmáay=a*  
 what own=3s  
 to whom does he belong? (Lit: who owns him?)  
 = who is he?
- b) *ci bb-éddar=a*  
 what IMPERF-hold=3s  
 who is married to her?
- c) *ci (ə)b-zurú*  
 what IMPERF-run  
 who is running (close by)? [addressed to the person  
 running who is not visible but heard]

The following examples show uses with the 'be'-connector *na*. This particle is not used elsewhere in the language. It is homophonous with the demonstrative that marks opposition (4.1.3.6). In this cleft construction, still asking for the subject position, a topic can be preposed to the question formula (258)b-c), and other discourse particles can intervene (259)(b). In the last examples (259)(e) a relative clause modifying the nominal element *didá* 'walking', changes the subject question to a 'manner' question.

- (258) a) *ci n(á)=a*  
 what be=3s  
 what's wrong? (lit: what is it?)
- b) *aséehat ci n(á)(=a?)*  
 health what be(=3s?)  
 health, what is it?

- c) *aaru ayo sé ... cí n(á)=a*  
 man DET DEM.FAR what be=3s  
 that man ... who is he?
- (259) a) *cí ná ay=n mân*  
 what be 3s=GEN name  
 what is his name?
- b) *t-ée-far-t*  
 F-SG-reward-F.SG  
*cí ná zá ní=n t-ée-far-t*  
 what be LC 2s=GEN F-SG-reward-F.SG  
 reward, so what is your reward?
- c) *cí ná ay=n saffarí*  
 what be 3s=GEN medicine  
 what is the remedy against it? (Lit: what is its medicine)
- d) *cí ná hé (a)γ(o) óoda?*  
 what be thing DET DEM.NEAR  
 what is this (thing)?
- e) *cí ná didá ayo a-ddábət?*  
 what be walk.VN DET 3s=can  
 what (kind of) walking can it (tick) (do)?

*cí ná* with *ayo* as the pronominal element always asks for a human referent. This conglomerate *ná ayo* (OPP DET) 'that one' is widely used in other contexts (4.1.3.6) and is understood as having a human referent. Different grammatical roles are found with this construction: a) subject, b) direct object, and with the fronted *ənda* COMV a comitative complement in c).

- (260) a) *cí ná ayo ss-əgmi-kat ana*  
 what be/OPP DET CAUS-send.BND-VEN 2s.DAT  
*cíidaw ay(o) óoda?*  
 bird DET DEM.NEAR  
 who sent you to get this bird?
- b) *ci ná ayo ni-gguná sénda ka*  
 what be/OPP DET 2s=see DEM.FAR LOC  
 whom did you see there?
- c) *cí ná ayo (ə)nd(a) i-b-hangá*  
 what be/OPP DET COMV 3s=IMPERF-accompany  
 who are they accompanying? (= with whom are they 'walking')

Another object question is built by adding *hó* to the question formula followed by a cleft sentence. This question form assumes a non-human referent.

- (261) a) *cí ná hó ni-b-hurrú*  
 what be thing.DEBR 2s=IMPERF-look.for  
 what are you looking for (lit: what is the thing you are looking for?)
- b) *cí ná hó d(a) áa-ka*  
 what be thing.DEBR do 3s=LOC  
 what is wrong with him? (lit: what is the thing that was put in him?)

Another question type adds a PP directly after the question formula to express 'from among'. Direct (a) and indirect object (b) can be questions this way. Again, *hó* refers to a non-human entity while *ayo* stands for a human referent.

- (262) a) *cí n(a) íi-ka hó ni-bbáaya*  
 what be 3p=LOC thing.DEBR 2s=want  
 which one of them do you want (lit: what is among them that you want)
- b) *cí n(a) íi-k(a) ayo se ni-nn(á) á-zrəf*  
 what be 3p=LOC DET DAT 2s=give SG-silver  
 to which one of them did you give money?

There is one occurrence in the corpus where *cí* precedes the inflected verb immediately. This seems to be an abbreviated version of *cí ná hó* 'what'.

- (263) *c(i) ándə-yasák banjú méy sa...*  
 what 2p=wish head or COMP  
 what do you wish, the head or that...

#### 4.7.3.3.2. *cí* (ná hó) be 'why?'

The 'why?' question is expressed as a subtype of the 'what?' question. In a literal sense it means 'on what', (that thing on) which may imply a more abstract meaning 'on what grounds' and then conveys 'why?'. The first example below illustrates the physical meaning ('on what place') and the next examples are 'why?' questions. A long form (b, c) and an abridged form (d) are used.

- (264) a) *cí ná hó be ar-tə-f-injá...*  
 what be thing.DEBR LOC 1p=FUT-CAUS-lay.down.BND...  
 on what will we lay down ... (our child)
- b) *cí ná hó be ni-b-zóy*  
 what be thing.DEBR LOC 2S=IMPERF-fight  
*ənda ní=n baba*  
 with 2S=GEN father  
 why are you arguing with your father?
- c) *cí ná hó be*  
 what be thing.DEBR LOC  
*hó sé a-ddá?*  
 thing.DEBR DEM.FAR 3S=PERF-do  
 why is that done?
- d) *cí bé*  
 what LOC  
 why?

A different construction is also found to express a similar meaning.

- (265) *cí ná áy=n addalíl*  
 what be 3s=GEN reason  
 for what reason? (= why?)

#### 4.7.3.3.3. c(i) agúd 'when?'

'When?' is made up of two elements, *cí* 'what' and *agúd* 'time'. *agúd* 'time' is also used by itself in the language in temporal adverbial clauses, e.g. *agúd ayo k(a) a-yyúhu...* (time DET LOC 3s=be.born) 'when/at the time when he was born....'). Note that both nominal and verbal constituents can follow the expression.

- (266) a) *c(i) agúd ay=n mán ən dá*  
 what time 3s=GEN name GEN do.NV  
 when is his/her name giving ceremony?
- b) *c(i) agúd a-ddidá*  
 what time 3s=walk  
 when did he leave?

#### 4.7.3.3.4. maana 'where (close by)?'

Interrogative *maana* 'where' is used when asking for an item in the close vicinity of the speaker, in contrast to the second 'where?' question word (see below 4.7.3.3.5) which implies that the speaker

has no idea about the whereabouts of the item s/he is asking for. This question word is probably a fusion of the two parts *man* 'where' and *na*, the 'be'-connector. This analysis is corroborated by the fact that only nouns and pronouns can follow it. When an object of a ditransitive verb is questioned, *ho* 'this thing' follows the frozen 'be'-connector (see (267)c). The examples d) to f) show uses of this question word that go beyond the spatial meaning.

- (267) a) *maaná ní-n húgu*  
 where.close 2s=GEN tent  
 where (around here) is your tent?
- b) *maaná nín*  
 where.close 2s  
 where are you?
- c) *maaná hó aya-b-záw-kat ándi se*  
 where.close thing.DEBR 1s-IMPERF-take-VEN 2p DAT  
 where is what I bring you (regularly)?
- d) *maaná ní-n á-ʃʃayal ən t-ə-nfa*  
 where.close 2s=GEN SG-work GEN F-SG-use  
 what is the usefulness of your work?
- e) *aɣ(o) óoda za t-a-náfus-t*  
 DET DEM.NEAR LC F-SG-story-F.SG  
*maan(á) áy-n almáʃna*  
 where.close 3s=GEN meaning  
 so this story, what is its meaning?
- f) *maan(á) áddabaara*  
 where.close decision  
 what shall we do? (= where is the decision?)

#### 4.7.3.3.5. *man ne* 'where?'

This construction asks for a location unknown to the person and at a further distance than the question word described above. The formula is directly followed by an (NP with) inflected verb. This is valid for verbs with a semantically locational complement (see 4.3.3). Example (c) with the verb *báara* 'be in' shows an additional oblique complement that is marked with PP *ka*. *man ne* can be followed by a fronted LOC postposition to express a starting point (from where), an aim (to where) or other oblique locations that must be marked with



the postposition *ka* LOC. This particular use is illustrated in example (e) and (f). Also the preposition *ənda* ‘in the direction of’ is found in this place with another type of movement verbs (g).

- (268) a) *mán n(e) i-f-kó*  
 where place 3p=IMPERF-leave  
 where are they going?
- b) *mán ne ni-n bor-én i-bb-əzday*  
 where place 2s=GEN person-PL 3s=IMPERF-settle  
 where do your parents live?
- c) *mán n(e) í-baara gánda ka*  
 where place 3p=be land LOC  
 where are they in the country?
- d) *mán ne k(a) ikkeení (Bámakoy ka)*  
 where place LOC 3p=sleep loc.name LOC  
 where (in B.) did they sleep?
- e) *mán ne k(a) aya-ttánga-kat-í*  
 where place LOC 1s=push-VEN=3p  
 from where did I push them (camels) to here?
- f) *mán ne k(a) andə-b-dá*  
 where place LOC 2p=IMPERF-put  
*andə-n mó-(e)n*  
 2p=GEN eye-PL  
 where do you(pl) put your(pl) eyes? (in what...)
- g) *mán ne (ə)nda ni-bé-boy*  
 where place LOC 2s=IMPERF-move  
 to(wards) where are you moving (camp)?

#### 4.7.3.3.6. *man ícet* ‘how much/many?’

The entire phrase *man ícet* has been imported from Tamasheq. The term *ícet* ‘quantity, measure’ not only occurs in questions, but is also found in an ‘augmentative’ type construction with pejorative connotation (e.g. *ícet ən t-a-báznaw-t* /measure GEN F-SG-old.donkey-SG.F/ ‘what a clumsy person’). *man ícet* is either used as a modifier to a noun (b), or independently (a, c). When used in a market situation, *man ícet* ‘how much?’ is used to ask for the price and not for the quantity of the items on sale. This use is illustrated in a).

- (269) a) *man ícet (tamáati)*  
 which quantity (tomato)  
 how much does it (tomato) cost?
- b) *man ícet feej-án a-ddáy-an*  
 which quantity sheep-PL 3s=deal-ALL  
 how many sheep did he sell?
- c) *man ícet ay=n i-wútay*  
 which quantity 3s=GEN PL-year  
 how old is s/he? (Lit: how many (are) his/her years)

#### 4.7.3.3.7. *man émmək ayó (ə)nda 'how?'*

The first two elements of this construction are from Tamasheq. In Tadaksahak *man émmək* is obligatorily followed by the definite marker and *ənda* 'with'. This is syntactically a relative clause with *émmək* as the modified head. Literally this means 'where is the manner with which...' followed by a fully inflected verb.

- (270) a) *man émmək ayó (ə)nda*  
 which manner DET with  
*ar-tə-nə-m-ayya ənda bəkáw-yan?*  
 1p=FUT-RECI-RECI-kill.BND with jinn-PL  
 how are we going to fight the jinns?
- b) *man émmək ayó (ə)nda*  
 which manner DET with  
*ay-tə-dá h(e) áyda*  
 1s=FUT-do thing DEM.PROX  
 how will I do this?

#### 4.7.4 Other particles

There are a number of particles that are used for emphasis and other discourse functions.

##### 4.7.4.1 *ya* exclamation / surprise

The particle *ya* expresses surprise or general emphasis. The particle is normally set off with a pause from the following material and does not need to be at the very beginning of a clause.

- (271) a) ...*ya a=yyéd áy=n naná*  
 EXCL 3s=return 3s=GEN mother  
 (Jackal killed Hyena and) ...indeed, he returned to his mother (from where he came).
- b) *ya maan(a) áy=n surgóy*  
 EXCL where.close 3s=GEN woman  
 really, where was his wife?
- c) *Ayo ya hé gánda n cidáy ka?*  
 DET EXCL thing earth GEN under.N LOC  
 this, (astonishment: does it really exist), is something under the earth?
- d) *ya gánda n caráy gánda n caráy!*  
 EXCL ground GEN friend ground GEN friend  
 watch out! a snake! a snake!"
- e) *a-ddíis=a (ə)nd(a) áa-har*  
 3s=let=3s with SG-lion  
*məffín ya áa-har a-bbún.*  
 but EXCL SG-lion 3s=be.dead  
 he left him (alone) with the lion, but, fact is, the lion was dead.

#### 4.7.4.2 *za* 'so' logical consequence

Another clause level particle is *za* labeled LC for 'logical consequence', often translatable as 'so'. It occurs frequently in the nominal clause *h(e) adí za* (thing ANA LC) 'so' or shortened to [(h)adíz].

- (272) a) *Aya=n t-a-nəfus-t za / əs-káhar*  
 1s=GEN F-SG-story-F.SG LC maybe-when  
*aya-dd(á)-á ana...*  
 1s=do=3s 2s.DAT  
 So my story, if I tell it to you...
- b) *dəffér za hó sé...*  
 after LC thing.DEBR DEM.FAR  
 So after that...

- c) ...*a-ttén*                      *ənda t-a-kárdaş-t*                      *óoda*  
 3s=arrive    with    F-SG-letter-F.SG                      DEM.NEAR  
*h(e) adí za a-nn(á) áa-se n i.*  
 thing ANA LC 3S=give 3s=DAT SEP 3p  
 ...he arrived with this letter, so this, he gave them to him.

#### 4.7.4.3 *da* 'really, exactly' intensification

In order to emphasize in a positive way, *da* INT can be cliticized to NPs, independent pronouns, verbs, the conjunction *məffín* 'but' and the intensifier *húllən* 'much'. It is frequent in topicalisation constructions (4.7.1.2.). Below are some examples.

- (273) a) *he [(a)yo-f-túwayr(a) ənda Taláatayt] da*  
 thing DET-IMPERF-PAS-call.BND with loc.name DIC  
*káamil...*  
 all  
 really all that is called T. ...
- b) *ingí káamil d(a) ékn-an*  
 3p.EMP all DIC twin-PL  
*izácen-an asénd(a) iffá*  
 youth-PL DEM.FAR seven  
 they were really all born at the same time (*Lit:* twins),  
 these seven young men.
- c) *húllən d(a) ay-tə-d(á)-á ana.*  
 much DIC 1S=FUT-do=3s 2s.DAT  
 I very much (like to) tell it (story) to you.
- d) *məffín dá aṭṭáalib a-kkás alwalí*  
 but DIC student 3s=become seer  
*dəffér h(e) adí.*  
 after thing ANA  
 but really, the student became a seer after this.

Songhay of Timbuktu has a phrase final particle /daa/ 'exactly, precisely, exclusively, right (here)' (Heath1999a:64) that conveys the same 'intensifying' semantics as this particle does in Tadaksahak. Also Tamasheq has a particle /da/ to indicate 'here, there, at the place in question' (Prasse et al. 2003:69, also Sudlow 2001:333).

4.7.4.4 *je ~ jen* 'only'

This particle is often found after the verbal word to emphasize the action described. It is less frequently found after NPs or the conjunction *har* 'until'.

- (274) a) *íizace a-háaši-a jé*  
 youth 3s=look=3s only  
 the young man simply looked at her.
- b) *arkássaway ən hé fó jé*  
 mishap GEN thing IND only  
*tén a-rázeg óod(a) əŋgám no daw*  
 arrive SG-herd DEM.NEAR instant there LOC  
 only a small mishap that arrives at the herd mentioned before
- c) *...ho sən har jé a-m-zéray*  
 thing.DEBR DEM.FAR until only 3s=SUBJ-pass.after  
*ənda sa...*  
 with COMP  
 ... that (action) until it simply follows that...
- d) *...agár didá jén a-b-dá.*  
 bad walk.N only 3s=IMPERF-do  
 (know that) his behavior was only bad.  
 (*lit.*: he only did bad walking)

In a subordinate clause *je* 'only' can be preceded by a temporal element *har* 'until' or *sa* 'when' and then encodes immediateness, 'as soon as'.

- (275) a) *har jé a-záyan a-ss-oýtá...*  
 until only SG-ray 3s=CAUS-upright.BND  
 as soon as it was dawn...
- b) *sa jé intáynawt a-gguná-kat áŋga...*  
 when only jackal 3s=see-VEN 3s.EMP  
 as soon as Jackal saw him coming...

4.7.4.5 *day, harkíd* 'in addition, too'

The particle *day* 'too' can follow a verbal word or a noun. It should not be confused with *da* INT, which has a different function and also a different origin. /day/ (Prasse et al. 2003:89) is found in Tamasheq with the same meaning as it has in Tadaksahak. Below is an example

where it appears next to a verb. The second example below is a special use (also found in Tamasheq), which seems to be idiolectal, to introduce either the next argument in the reasoning or give a conclusion to previous material.

(276) a) *a-báara day t-órf-in ən kó-(e)n*  
 3s=be too FE-car-PL GEN owner-PL  
 there are also the car owners.

b) *day adí ándi ay=n t-á-ggas-t*  
 too ANA 2p.EMP 3s=GEN F-SG-gard-F.SG  
*a-f-keení.*  
 3S=IMPERF-be.on  
 also this, it's on you that its (land) protection is. (= you are responsible for its protection)

Another particle that adds to already present material is *harkíd* 'also'. It is only found adding NPs to an already known entity. It precedes the noun that is added. Syntactically it is often at the end of a clause but it can also precede the verb as shown in example (c) below.

(277) a) *a-yyírşək ənd(a) áy=n kamb-én*  
 3s=sweep with 3s=GEN arm-PL  
*harkíd ay=n c-en.*  
 also 3s=GEN leg-PL  
 he made sweeping movements with his arms and also his legs.

b) *a-yyéd áa-ka áŋga harkíd áy=n baarí.*  
 3s=return 3s=LOC 3S.EMP also 3s=GEN horse  
 he fell into it (well), he and his horse.

c) *ándi ay=n t-é-kma harkíd ay=n*  
 2p.EMP 3s=GEN F-PL-evil also 3s=GEN  
*t-éŋfa a-f-táw.*  
 F-useful 3s=IMPERF-reach  
 it's you (pl) that its (of the land) disaster and its usefulness reaches.

#### 4.7.4.6 inzín 'like'

This particle can stand between two NPs or an NP and a verbal phrase.

- (278) a) *feiji aɣ(o) óoda inɣín aɣ=wáni...*  
 sheepDET DEM.NEAR like 2s-of  
 this sheep is like mine...
- b) *a-ddá gíman aɣ(o) óoda k(a) inɣín hé fó.*  
 3s-do good.VN DET DEM.NEAR LOC like thing IND  
 she was absolutely beautiful.  
 (Lit: she was (put) in that beauty like something.)
- c) *ée-dag aɣo sénda inɣín ni=yyíkkəl=a*  
 SG-place DET DEM.FAR like 2s-lift.up=3s  
*ni-dd(á)=a suubú ka.*  
 2s=put=3s hay LOC  
 this matter is like (as if) you take it (fire) up and put it to  
 the hay.

Example (b) shows an idiomatic use for an absolute superlative. It has the same construction as the first example with 'something'. (c) also illustrates that clauses can follow *inɣín* which is then better translated with 'as if'.

## 4.8 Complex Sentences

### 4.8.1 Clause coordination

#### 4.8.1.1 Clausal 'and'

There is no clausal 'and' conjunction. Main clauses are conjoined without explicit marker.

#### 4.8.1.2 Clausal 'or' *mey*, *máday*, *and wala*

The same markers that are used for disjunction of noun phrases (4.1.9.2) are also found between clauses. *mey* and *máday* only encode 'or' and are therefore unambiguous. They are often found between larger text blocks including several clauses.

(279) *n(e) áyda k(a) a-dd(á) áy=n maamála*  
 place DEM.PROX LOC 3s=do 3s=GEN commerce  
*mey n(e) áyda k(a) a-kkúḍ áy=n almán*  
 or place DEM.PROX LOC 3s=herd 3s=GEN herd  
*har á-dda t-a-báyor-t.*  
 until 3s=do F-SG-wealth-F.SG  
 it's here he was a merchant, or it's here he kept his herd  
 until he was wealthy.

(280) *a-fíbuk(u) a-kkun(á)=a máday lúmmut a-kkun(á)=a*  
 SG-diarrhea 3s=find=3s or measles 3s=find=3s  
 he has diarrhea or measles...

*wala* is also found between clauses.

(281) *émməs-kábahar ni-bbáaya ní=n caráy*  
 maybe-when 2s=love 2s=GEN friend  
*wala ni-bbáaya ní=n céena*  
 or 2s=love 2s=GEN younger.sibling  
*wala ní=n a-fáqay...*  
 or 2s=GEN SG-brother  
 if you care about your friend or you care about your  
 younger relative or your brother....

All the examples above show parallel clauses. There are examples of larger chunks of text material between the 'or' particles in our corpus.



The following example with *mey* includes a large piece of text about ‘harming oneself by bad behavior’. After a concluding clause the speaker takes off again:

- (282) *mey ni=b-fárrad huurú se a=húur(u)=a...*  
 or 2s=IMPERF-neglect fire DAT 3s=enter=3s  
 or you neglect the fire and it enters it (hay)....

#### 4.8.2 Purpose and causal clauses

##### 4.8.2.1 Purpose ‘in order to’ marked with subjunctive mood

A purpose clause is often only marked by the subjunctive mood without any other overt morpheme.

- (283) a) *ay=tə-dáy-an aya=n t-óoruf-t*  
 1s=FUT-deal-ALL 1s=GEN F-car-F.SG  
*aya=m-dáy-kat áa=k(a) almán.*  
 1s=SUBJ-deal-VEN 3s=LOC herd  
 I will sell my car in order to buy a herd (of animals).

- b) *...i=tə-dá-kat daazí i=mm-éfrəð=i.*  
 3p=FUT-make-VEN broom.kind 3p=SUBJ-broom=3p  
 (when the seeds have fallen) they make a broom in order  
 to sweep them (seeds) together.

At times the subjunctive mood is preceded by the conjunction *har* ‘until’ that can have a purpose component in its semantics. (cf. 4.8.4.5 example (305))

- (284) a) *yíddər ayay áa-har har aya=m-wí=a*  
 hold 1s.IO SG-lion until 1s=SUBJ-kill=3s  
 hold the lion for me in order that I kill it.

- b) *aya=kkár nín har ni=n ée-mat a=m-dudú.*  
 1s-hit 2s until 2s=GEN SG-small.tear 3s=SUBJ-flow  
 I hit you to make you cry a bit.

##### 4.8.2.2 Causal clauses

There are several ways to indicate cause. One possibility is the clause initial particle *iddá* ‘because’ with variants, and there are two postpositional constructions that mark cause and reason.

The clause-initial particle has two dialectal variants which are *igdá* ‘because’ in the Talatayt area and *iddá* or short *íd* in the rest of the

area. Sudlow (2001:331) lists the shape /id/ for a Tuareg dialect in northern Burkina Faso with the meaning ‘since, if, when’ and Heath (2005:674) gives examples with /ed/ meaning ‘because’.

*iddá* is followed and preceded by a full clause and there may also be complex sentences like conditionals (see an example in story 1 line 43). Find other examples below.

(285) a) *igdá a-ttégor a-munsu a-b-díydi*  
 because 3s=begin SG-meal 3s=IMPERF-penetrate  
*bor-én ən í-ffan-an ká*  
 person-PL GEN PL-tooth-PL LOC  
 (not rinsing your mouth after the meal destroys them (teeth)), because the food begins to penetrate in people’s teeth.

b) *áaru a-bbáaya s(a) a-tə-yíyder ná ayo*  
 man 3s=want COMP 3s=FUT-betray OPP DET  
*idd(á) á-bben ay=n bárr-en*  
 because 3s=finish 3s=GEN child-PL  
*a-ηη(á)-í*  
 3s=eat-3p  
 he wanted to betray the other one because he had finished his children and eaten them.

c) *i-ssá-nn-əlbəḍ-a iddá ná ayo n*  
 3p=CAUS-RECI-be.added=3s because OPP DET GEN  
*kud-én i-ddá ná ayo ka*  
 blood-PL 3p=do OPP DET LOC  
 they (health agents) contaminated him (patient) because the blood of one (patient) was put in another one.

The prepositional phrase *hé bé* ‘on (some)thing’ can be used to introduce a reason clause. This construction is similar to the interrogative ‘why?’ (4.7.3.3.2)

(286) a) *tanéfust ay(o) óoda ánga néeda*  
 F-SG-story-F.SG DET DEM.NEAR 3S.EMP here  
*hé bé (a)-ttén sa*  
 thing LOC 3s=arrive COMP  
*surgóy a-ssə-may-ənda s(a) a-tə-dá...*  
 woman 3s=NEG.IMPERF-have-with COMP 3S=FUT-do  
 this story, here is why it is such that a woman ought not to do...

- b) *wiji hé bé (a)-dd(a)=í*  
 is.not thing LOC 3s=do=3p  
*har almítal aɣ(o) óoda ay-tə-hár ándi se*  
 until example DET DEM.NEAR 1s=FUT-tell 2p DAT  
 it (decentralization) is done for no [other] reason than the  
 example I am going to tell you... (lit: it is not on anything it  
 (government) makes them (decentralized places) until for  
 the example...)

Cause and reason can also be expressed by means of a postpositional phrase with the postposition *ka* 'from'. The nominal entity is normally *he* 'thing' but may be semantically more specific, as in example (c) below.

- (287) a) *ni-m-jeej(i)=á tugúdu ka hé ká*  
 2s=SUBJ-hang=3s tree LOC thing LOC  
*hánfi (a)-sə-táaw=a*  
 dog 3s=NEG.IMPERF-reach=3s  
 you should hang it (eating bowl) in a tree, because a dog  
 cannot reach it.

- b) *ən-tə-məyiter hé ká ni-ddá*  
 2s=FUT-lack.money thing LOC 2s=put  
*tálla ka ni-n afággar*  
 good LOC 2s=GEN destiny  
 you will have (money) problems, because it's in goods  
 you put your destiny/trust.

- c) *a-ddá háamu tugúdu n bí ká*  
 3s=put meat tree GEN shadow LOC  
*hambará n ná ká sa*  
 fear GEN give.VN LOC COMP  
*korr(á) á-tə-yíyfid-a.*  
 heat.N 3s=FUT-destroy=3s.  
 she put the meat in the shade of a tree because she was  
 afraid that the heat might ruin it.

#### 4.8.3 Conditionals

There exist a vast number of conditional markers in Tadaksahak. Some can be traced to cognates in Songhay, while others have cognates in Tamasheq. Some of them are dialectal variants of each other, e.g. *ənda* 'with' (in the meaning 'when/if') is not used in the south, where *kar* 'when/if' is used. The clause with the conditional

marker can be marked with any Mood-Aspect-Negation marker except the SUBJ. There is no element that separates the condition (the 'if-clause') from the consequent ('then...'). The main clause may be a question (289) or an imperative.

#### 4.8.3.1 *ənda* 'with' and similar forms

Clauses with *ənda* normally state a general condition that causes the event (or state) described in the main clause to happen (or be true). The MAN marker of the main clause depends on the wider context, e.g. in an instructional text SUBJ is used ((288)c), for a condition to be considered 'general knowledge' IMPERF can be found (a). The subordinate 'ənda'-clause is always in perfective aspect.

(288) a) *ənd(a)* *ayá=n* *cáy* *a-ddígdig*  
 with 1s=GEN leg 3s=be.broken  
*a-bb-aşór* *ayáy.*  
 3s=IMPERF-hurt 1s  
 when my leg is broken, it hurts (me).

b) *íttilla ənd(a)* *a-mmánna*  
 each with 3s=be.without.grass  
*ánda h(e) ad(i) a-tə-dár*  
 2p thing ANA 3s=FUT-suffer  
*ənda suub(ú)* *a-dd(a)* *áa=ka*  
 with straw 3s=put3s=LOC  
*ánda h(e) ad(i) a-tə-yinfá*  
 2p chose ANA 3s=FUT-be.useful  
 each time when it (land) is without grazing, it is you whom  
 this makes suffer (and) when there is straw, it's you to  
 whom this is useful.

c) *i-ccí t-oo-lás-t* *ənd(a)* *átrif* *a-húuru*  
 3p=say F-SG-do.again-F.SG with wound 3s=enter  
*borá* *a-m-mún* *áa=be* *gánda.*  
 person 3s=SUBJ-pour 3s=LOC earth  
 it is also said when somebody has a wound he may pour  
 earth on it.

Most occurrences of *ənda*-clauses are preposed but it is possible to have the conditional follow the main clause.

(289)	<i>cí</i>	<i>ná</i>	<i>hó</i>	<i>bé</i>	<i>ar-tə-fɪŋ(á)</i>
	what	be	thing.DEBR	LOC	1p=FUT-CAUS.lay.down
	<i>arə-n</i>	<i>báarar</i>	<i>ənd(a)</i>	<i>á=yyuhu?</i>	
	1p=GEN	child	when	3s=be.born	
	on what will we lay our child when it is born?				

Semantically, the temporal aspect of *ənda* ‘when/if’ seems to be more important than the conditional component.

Songhay of Gao and Timbuktu use the particle *nda* ‘if’ for several kinds of conditional clauses, such as hypothetical and counterfactual (Heath 1999:303ff; 1998:263ff). In Tadaksahak it is only found with generally known and accepted states.

In Tadaksahak, there exists a similar marker, which occurs in two forms, *əndánga* and *nánga*. According to our informants, the first is used in slow speech, while the second belongs to fast speech. Our corpus shows that the short form is considerably more frequent in sentence initial position than the other variant.

*əndánga* is composed of the morphemes *ənda ánga*, i.e. /with + 3s.EMP/ ‘with it’. Similar to the *ənda* clauses treated above, the *əndánga* clause states a condition, now not very general but more specific, that allows the event described in the main clause to happen. The subordinate clause with *ənda ánga* is not attested in the perfective aspect but imperfect and future are found.

(290)	<i>aya-n</i>	<i>haw(ú)</i>	<i>óda</i>	
	1s=GEN	cow	DEM.NEAR	
	<i>əndánga</i>	<i>aarú</i>	<i>a-tə-háy</i>	<i>ay-tə-dumb(ú)=a</i>
	if	man	3s=FUT-give.birth	1s=FUT-cut=3s
	<i>əndánga</i>	<i>wáy</i>	<i>ay-tə-díis-a</i>	
	if	woman	1s=FUT-let=3s	
	my cow here, if it gives birth to a male (calf), I will kill it, if (it is a) female, I will let it (live).			

*əndánga* is often used together with the particle *wiji* ‘(it) is not’ and then introduces the exceptional condition that could bring about the desired effect. Typically the verb of the main clause is put in the negation to underline the exception. In most cases this can be translated into English as ‘nothing but...’. When the exception is expressed by a noun, the noun follows *wiji* immediately. If it is a

clause, the complementizer *sa* is used before this clause. Example (b) below has the shortened form *nánnga* with *wiji*.

- (291) a) ...*hé* (*a*)-*sə-káaw=i*                      *ay=n*                      *kámba*                      *ka*  
 thing 3s=NEG.IMPERF-take=3p 3s=GEN hand LOC  
*əndánnga wiji t-a-kárɗas-t.*  
 if is.not F-SG-letter-F.SG  
 (He told him that) nothing (could) take them from him  
 except (Lit: if it is not) a letter (of authorization written by a  
 marabout).
- b) (If you leave it (land) to your children, it is not possible  
 that it dies or gets lost [like animals])...  
 ...*nánnga wiji s(a) i-tə-dáy-an.*  
 if is.not COMP 3p-FUT-deal-ALL  
 ...except that they sell [and so get the money].

In the next example a pair of conditional markers shows two opposite possibilities.

- (292) (hey, young man, you (should) know that I suggest a price  
 for an animal only once!)  
*nánnga ní-b-díní ní=n á-zrəf dá*  
 if 2s=IMPERF-take 2s=GEN SG-money DIC  
*din(i)=á nánnga ən-sə-din(i)=a dá*  
 take=3s if 2s=NEG.IMPERF-take=3s DIC  
*sa ní-m-hár ayáy aya=mm-íci...*  
 COMP 2s-SUBJ-say 1s 1s-SUBJ-move.on  
 if you take the money, take it! If you don't take it, (at least)  
 tell me (so) that I may move on...

This condition marker was only found in spontaneous speech and not used when conditional clauses were translated. This seems to indicate that it needs to be embedded in a larger context while the marker *(əmm)əs-ká(ba)(ha)r* (see below) is used when no context is given.

#### 4.8.3.2 *(əmm)əs-ká(ba)(ha)r*

This conditional marker contains two morphemes. *(əmm)əs* which, according to our informants, is an abbreviated form of *həmməz* ~ *həmməz* 'maybe'. The form *əmməs* is rare in the corpus and may be a dialectal variant. The short form *əs* is widely used around Menaka and in the south. The second morpheme, *kábahar* 'when', seems to be linked etymologically with /har/ 'until, when'. It appears in its full

form or as *kahar* or *kar*. Different MAN markers are found in the subordinate clause with *əs-kábahar*.

- (293) a) *əs-kábahar* *á-yaatir* *a-qqóq*  
 maybe-when SG-clay.ground 3s=be.dry  
*a-ttégor* *a-b-s-ésserr-ət.*  
 3s=begin 3s=IMPERF-CAUS-tear.apart  
 when ground with clay (on it) is dry, it gets torn apart.
- b) *əs-káhar* *Máadiḍ* *a-b-s-əgdá* *i-zínn-an*  
 maybe-when Milky.way 3s=IMPERF-CAUS-be.equal PL-sky-PL  
*arə-f-kunḡú* *huwá ka.*  
 1p=IMPERF-be.full milk LOC  
 when the Milky Way is in the zenith, we can drink our fill of milk.
- c) *əs-kár* *cinj-én* *i-sə-kár*  
 maybe-when rain-PL 3p=NEG.IMPERF-hit  
*íttill(a) agg áadəm* *h(e)* *ad(i) a-tə-dár.*  
 each son.of Adam thing ANA 3s=FUT-suffer  
 when it does not rain, everybody will suffer.
- d) *əs-káhar* *aya-ddá* *ṣót* *ayo* *yizzár-an*  
 maybe-when 1s=do jump.VN DET be.ahead-ADJZR  
*ni-mm-əlbi* *ni-n* *t-á-kooba...*  
 2s=SUBJ-pull.out 2s=GEN F-SG-sword  
 when I make the first jump, you pull out your sword...
- e) *əs-káhar* *ni-bbén* *ənd(a)* *a-múnsu*  
 maybe-when 2s=finish with SG-meal  
*ni-m-hímay* *ni-n* *kámb-en.*  
 2s=SUBJ-wash 2s=GEN hand-PL  
 when you finish the meal, you wash your hands.
- c) *əs-káhar* *ni-nə-ʒ-ərrəzəm* *ni-n* *míya,*  
 maybe-when 2s=NEG.PERF-CAUS-rinse 2s=GEN mouth  
*a-múnsu* *ayo* *(á)yda* *a-té-gor(a)-an* *ni-n*  
 SG-meal DET DEM.PROX 3s=FUT-sit-ALL 2s=GEN  
*í-ffan-an* *ka...*  
 PL-tooth-PL LOC  
 when you don't rinse your mouth, this same meal will stay in your teeth...

- d) *arw-én óoda émməs-kábahar i=mmó sa*  
 man-PL DEM.NEAR maybe-when 3p=hear COMP  
*t-a-bállen-t ni-b-hurrú i=tə-wí nín.*  
 F-SG-fight-F.SG 2s=IMPERF-look.for 3p=FUT-kill 2s  
 these men, when they hear that it is a fighting match you  
 seek, they will kill you.

The first element, *émməs* or *əs*, can be omitted when thematically related material precedes and already contains a full condition marker.

- (294) a) *əs-kábahar árat-an i=yyíli alfájjir*  
 maybe-when herd-PL 3p=leave morning  
*a=tə-t-ələm.*  
 3s=FUT-PASS-open  
*káhar i=húuru-kat álməz i=tə-yáhar-kaat=a*  
 when 3s=enter-VEN evening 3p=FUT-cover-VEN=3s  
*i=m-hállət-kat t-a-ssáhar-t...*  
 3p=SUBJ-mount-VEN F-SG-cover-F.SG  
 When the herds left in the morning, it was opened. When  
 they entered in the evening, they covered it (cistern) so  
 that they could mount over the lid.
- b) *əs-kár aɣ=nə-yée-kat ni=wáni.*  
 maybe-when 1s=NEG.PERF-return-VEN 2s=of  
*kár aɣ=yyée-kat aɣ=wáni.*  
 when 1s=return-VEN 1s=of  
 if I don't return, it (horse) is yours, if I return it is mine.

#### 4.8.3.3 *əndár*

This marker posits a hypothetical condition. The subordinate clause is in perfective with this marker.

- (295) a) *əndár aɣa=bbáy sa Táħa a=jjí n(e) áyda*  
 if 1s=know COMP T. 3s=not.be place DEM.PROX  
*aɣ=sə-kóy-kat.*  
 1s=NEG.IMPERF-leave-VEN  
 if I had known that T. is not here, I wouldn't have come.



- b) *igdá / əndár a-bbáy hó báara*  
 because if 3s=know thing.DEBR be.in  
*áa-se aláxar*  
 3s=DAT other.world  
*a-sə-d(á) áa-se hé yibrár-an.*  
 3s=NEG.IMPERF-do 3s=BEN thing be.bad-ADJZR  
 because if she knew what was for her in the other world  
 she would not do anything bad to him.
- c) *ciimí ayo (ə)nda hinká (a-cc(i) áa-se)*  
 truth DET with two 3s=say 3s=DAT  
*sa t-a-dáqqa-t óoda əndár aya-bbáy*  
 COMP F-SG-road-F.SG DEM.NEAR if 1s=know  
*sa (ə)n-tə-záw-kat-a ay-sə-dá-kat-a.*  
 COMP 2s=FUT-take-VEN=3s 1s=NEG.IMPERF-make-VEN=3s  
 the second truth (she said to him) is that if I had known  
 that it is this road you were going to take, I would not have  
 taken it.

In Tamasheq, the same particle /əndár/ənnár/ marks a counterfactual condition (Heath 2006:698).

#### 4.8.3.4 kud dáy ‘even if’

*kud dáy* literally means ‘if too’. It can be read as ‘even if’.

- (296) *íttill(a) ágg áadəm mánn(a) a-tə-dár*  
 each son.of Adam without.grazing.VN 3s=FUT-harm  
*kud dáy a-sə-mmay almán ənda ay-n gá.*  
 if also 3s=NEG.IMPERF-own herd with 3s=GEN self  
 each person suffers from lack of grazing even if he does  
 not own animals himself.

This same conjunction /kud-dáy/ ‘even if’ (même si) is used in Tamasheq with the same function but also for a variety of other uses. Find further discussion of *kud* under 4.3.10.4.

#### 4.8.4 Temporal subordination

##### 4.8.4.1 sa ‘when...’

The simplest clause of temporal subordination is marked by the element *sa* which translates as ‘when’. The subordinate clause is

always in the perfective. *sa* translated as ‘when’ could very well be the same element as the complementizer *sa* and the relativizer *sa*.

- (297) a) *sa Múss(a) a=ttén*  
 when M. 3s=arrive  
*arə=bbén ənd(a) a-múnsu.*  
 1p=finish with SG-meal  
 when Mussa arrived we had finished the meal.
- b) *s(a) a=ff-injá téysa*  
 when 3s=CAUS.put.down.BND animal  
*t-á-har-t a=ddá h(e) óoda...*  
 F-SG-lion-F.SG 3s=do thing DEM.NEAR  
 when she put the sheep/goat down the lioness did this...
- c) *s(a) arw-én ayondo sénda i=ttén*  
 when man-PL DET.PL DEM.FAR 3p=arrive  
*i=nn(á) áaru s(e) a-lákat*  
 3p=give man DAT SG-twig  
 when those men arrived, they gave the twig to the man.
- d) *s(a) i=ggun(á) á-mḡəs [da takúduḡkut] ən*  
 when 3p=PERF-see SG-camel do cut.tail GEN  
*a-déraz ayo n bér a=ccí...*  
 SG-trace DET GEN older.sibling 3s=say  
 when they saw the trace of a camel with cut tail, the  
 oldest said...
- e) *s(a) a=ggár-an t-áa-har-t wértilla*  
 when 3s=find-ALL F-SG-lion-F.SG there.is.not  
 when she found (it), the lioness was not there.

*sa* followed by *je* ‘only’ encodes immediateness, ‘as soon as’.

- (298) *sa je intáynawt a=gguná-kat áḡga...*  
 when only jackal 3s=see-VEN 3s.EMP  
 as soon as Jackal saw him coming...

#### 4.8.4.2 Temporal use of *dá* ‘intensifier’

Another way to express a temporal subordination is by means of the intensifier *dá* INT in conjunction with an anaphoric NP.

- (299) *dá hé (a)yd(a) a=ddá....*  
 INT thing DEM.PROX 3s=do  
 when this was done....

#### 4.8.4.3 Temporal clauses based on temporal nouns

Other strategies to achieve temporal subordination include temporal nouns that are set in a complete postpositional relative clause. The term *agúd* '(point in) time' is regularly found in such constructions.

- (300) *agúd ayo k(a) arə=kkéed(i) ay=n béena*  
 time DET LOC 1p=be.up 3s=GEN top  
*aya=b-gun(á) ay=n i-mádd-an i-b-zə-lənzəl-ət.*  
 1s=IMPERF-see 3s=GEN PL-tear-PL 3p=IMPERF-CAUS-roll  
 when we were up on the top, I saw (that) his tears were rolling down.

Other time expressions can be found like *assáfat* 'time'.

- (301) *assáfat ayo ka ni=n a-múnsu a=kkeení*  
 time DET LOC 2s=GEN SG-meal 3s=lay.down  
*he (a)=ddúuwa sa...*  
 thing 3s=be.better COMP  
 when your meal is put down, it is better that...

#### 4.8.4.4 *t-izzár-t* 'before...'

*t-izzár-t* 'before' is a cognate of a similar element in Tamasheq derived from the verb *yizzár* 'precede'. *t-izzár-t* is usually followed by a verb in SUBJ mood.

- (302) a) *...bor(á) a=b-hímay áy=n kamba*  
 person 3s=IMPERF-wash 3s=GEN hand  
*t-izzár-t a=m-huur(ú) a-múnsu*  
 F-precede-F.SG 3s=SUBJ-enter SG-meal  
 (it is better that) somebody washes his hand before he begins to eat.
- b) *...ay=tə-d(a) áa=ka hé*  
 1s=FUT-do 3s=LOC thing  
*t-izzár-t aya=m-řaw-an a-hándag ayo*  
 F-precede-F.SG 1s=SUBJ-reach-ALL SG-place DET  
*t-ə-skán-in wán-i.*  
 F-PL-greeting-PL of-PL  
 (it's about them I want) to talk a bit before I reach the moment of the greetings.

The following example has the verb of the adverbial clause in the IMPERF aspect.

- (303) ...*kud á=mmay t-a-rásway-t wal(a) a=sé=mmay*  
 if 3s=have F-SG-clothe-F.SG or 3s=NEG.IMPERF-have  
*t-izzár-t ni=bb-éñsi.*  
 F-precede-F.SG 2s=IMPERF-beg  
 (when you try to get a piece of clothing from somebody,  
 look if the one (shirt) that is on his body) if he has (proper)  
 clothes or not before you beg (of him).

#### 4.8.4.5 *har* 'until...'

'until...' clauses are expressed with the adverbial conjunction *har* 'until/when'.

- (304) *a=b-húrru áy=n yíddər n(e) áyda*  
 3s=IMPERF-look.for 3s=GEN hold.VN place DEM.PROX  
*ka har a=yyidáz*  
 LOC until 3s=be.tired  
 he (Jackal) was trying to hold him (Hyena) there until he  
 was tired (= gave up).

Some occurrences indicate 'purpose' for the subordinate clause.

- (305) *i=ffíikəl har i-ddáy-kat hayní*  
 3p=travel until 3p=deal-VEN millet  
 they traveled until (=in order to) they bought millet.

*har* 'until' is identical with the particle translatable as 'except' (see 4.6.3).

#### 4.8.4.6 *zamá* 'after...'

The conjunction *zamá* 'after' precedes a clause, while *déffər* 'after' is followed by a non-verbal element.

- (306) a) *Zam(á) arə=ddəwənn-ət andi s(e) alxér k(a)*  
 after 1p=speak 2p DAT peaceLOC  
*ayo gánda wani ar-tə-yée-kat alxér ayo...*  
 DET earth of 1p-FUT-return-VEN peaceDET  
 after we spoke to you(pl) about the wellbeing of the earth  
 we will return to the wellbeing of (the body)

- b) *dáffer za hó sé zam(á) aya-ss-íli-a*  
 after LC thing.DEBR DEM.FAR after 1s=CAUS-leave=3s  
*a-ccí marád-da a-m-η(á) ayáy*  
 3s=say now-INT 3s=SUBJ-eat 1s  
 so after that, after I (Monkey) had made him (Hyena)  
 leave it (the well), he now wanted to eat me.

*zamá* is found together with the conjunction ‘until’ in the following example.

- (307) *a-nə-yéd-kat har zam(á) aya-ttén áa=daw.*  
 3s=NEG.PERF-return-VEN until after 1s=arrive 3s=LOC  
 he didn’t return until after I arrived at his (place).

The conjunction *zamá* ‘after’ originally comes from Arabic. It is also known in Tamasheq and no doubt has found its way to Tadakshak through that language.

#### 4.8.4.7 Simple juxtaposition of a temporal clause

There are a number of temporal expressions that are syntactically complete clauses. However, they do not stand alone but accompany a main clause for which they set the temporal frame.

- (308) a) *záyr(i) a-ddá t-á-myár-t a-şşót-kat.*  
 day 3s=do F-SG-old.person-F.SG 3s=jump-VEN  
 (when) it was day, the old woman jumped.
- b) *t-áa-dwi-t a-ddá a-húur(u)*  
 F-SG-afternoon-F.SG 3s=do 3s=enter  
*á-yalla*  
 SG-wall  
 in the afternoon he entered the yard.

The particle *jeddí* ~ *ceddí* ‘yet’ can be found preceding a verb in the IMPERF aspect and is then read as ‘while’. The *jeddí* clause is usually the second clause in this juxtaposition.

- (309) a) *ni-m-hímay=a jedd(i) á=f-ṭay*  
 2s=SUBJ-wash=3s yet 3s=IMPERF-be.wet  
 you wash it (pot) while it is (yet) moist.

- b) *i=f-t-əg(a)*                      *áari*  
 3p=IMPERF-PASS-do.BND    1p.IO  
*cedd(i)*    *arə=f-kás*                      *barr-én*    *ceená-nənən*  
 yet                      1p=IMPERF-be                      child-PL                      be.small-ADJZR.PL  
 they (stories) were told us while we were (yet) small  
 children.

The following example has *feddí* 'yet' preceding a verb in the NEG.PERF to express 'before'.

- (310)    *ən-tə-yáhar-a*    *ənd(a)*    *ay-n t-a-ss-áhar-t*  
 2s-FUT-cover-3s    with                      3s-GEN F-SG-INST-cover-F.SG  
*feddí gánd(a)*    *a-nə-huur(ú)-á*  
 yet earth                      3s-NEG.PERF-enter-3s  
 cover it with its lid before earth has entered it.  
 (Lit: (when) earth has not yet entered it)

In the region around Menaka the form *feddí* 'yet' is mostly used while *ceddí* is used in Talatayt area.

#### 4.8.5 Spatial adverbial clauses

The spatial adverbial clause (where...) is by its syntactic shape a relative clause modifying *né* 'here/location'.

- (311)    *né k(a) áy-n t-ə-búuyar*                      *i-yyée-kat*  
 here LOC    3s-GEN F-PL-camel                      3p=return-VEN  
*gánda ka*  
 earth LOC  
 there where his camels go round in the area...

A similar construction is found with other locational nouns. The two examples below illustrate an indefinite (a) and definite (b) noun modified.

- (312) a)    *ar-tə-hurr(ú)*                      *áa-se*                      *aŋgú k(a) a-yyídən*  
 1p=FUT-look.for    3s=DAT                      place LOC    3s=graze  
 we look for a place for it (herd) where it (can) graze.
- b)    *a-yyéd*    *i-n*                      *áŋgu ayo*  
 3s=return    3p=GEN                      place DET  
*k(a) i-yyízday*  
 LOC    3p=live  
 he returned to the (their) place where they live.

With the word *né* 'here' the interpretation of the clauses is strictly spatial. However *anǵú* 'place', *é-e-dag* 'place' and *a-hándag* 'place' can also be found with temporal meanings (see example (302)b)).

#### 4.8.6 Manner adverbial clauses

A relative clause with instrumental preposition and the noun *émmək* 'manner, method' serves as an adverbial clause.

(313) a) *émmək* *ayó* (*ə*)*nda* *ay-tə-d(á)-a*  
 manner DET with 1s=FUT-do-3s  
 the manner (with which) I will do it.

b) *...émmək* *ayó* (*ə*)*nda* *ni=ssoorá* *t-áa-har-t*  
 manner DET with 3s=milk F-SG-lion-F.SG  
 (tell me) how you milked the lioness.

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## Appendix I

### Text 1: A folk tale

The following story was told by Afafaʿa from Talatayt in the speech variety of that region. The tape was transcribed with the help of Mahamad ag Almaki from Infukaraytan.

The main character of the story is 'Jackal'. He is one of the most clever animals in the folk tales of the Idaksahak. Note that the story teller is using two different terms for 'jackal'. In the beginning it is *intáynawt*. This term is normally used to designate the animal known to kill kids. At the end of the story the other term *abiiji* is used, more normal for tales of this kind.

(1) *áywa kəl(á) a-zúbara a=mmáy bárr-en*  
 well once SG-warthog 3s=have child-PL  
 So, Warthog once had children.

(2) *a=húrru hé ssé-ss-əyr(a) áa-se n i*  
 3s=look.for thing CAUS-CAUS-study.BND 3s=DAT SEP 3p  
 He was looking for somebody who would teach them for him.

(3) *ho sénda har á-ggun(a) intáynawt.*  
 thing.DEBR DEM.FAR until 3s=see jackal  
 (He did) that until he saw Jackal.

(4) *intáynawt a=cc(i) áa=s(e)*  
 jackal 3s=say 3s=DAT  
 Jackal said to him:

(5) *yéw aya-m-sé-ss-əyra ni-n bárr-en*  
 come! 1s-SUBJ-CAUS-CAUS-study.BND 2s=GEN child-PL  
 "Come, (that) I will teach your children.

(6) *ayáy s(a) alfáqi*  
 1s.EMP COMP teacher  
 It's me who is (Koran-)teacher!"

(7) *a=ddin(i) áy=n bárr-en*  
 3s=take 3s=GEN child-PL  
 He took his children.

(8) *ay=n bárr-en íŋgi ʔaaş(á)*  
 3s=GEN child-PL 3p.EMP nine  
 His children, they were nine,

- (9) *a=nn(a)-í intáynawt se*  
 3s=give=3p jackal DAT  
 he gave them to Jackal
- (10) *har á=b-sə-ss-əyr(a) áa-se n i*  
 until 3s=IMPERF-CAUS-CAUS-study.BND 3s=DAT SEP 3p  
 that he would teach them (for him).
- (11) *a=cc(i) a=b-sə-ss-əyr(a)=i.*  
 3s=say 3s=IMPERF-CAUS-CAUS-study.BND=3p  
 He<sub>1</sub> thought he<sub>2</sub> would teach them.
- (12) *da h(e) áyd(a) a=ddá*  
 INT thing DEM.PROX 3s=do  
*a-zúbar(a) a=báara n(e) áyda*  
 SG-warthog 3s=be place DEM.PROX  
 When this was done, Warthog was there
- (13) *har á=dd(a) i-wútay*  
 until 3s=do PL-year  
 until he had spent (some) years.
- (14) *jinjiná a=kkóy-kat*  
 first 3s=leave-VEN  
 (When) he first came
- (15) *a=ccí a=b-fúggu-kat ay=n bárr-en ka*  
 3s=say 3s=IMPERF-look.down-VEN 3s=GEN child-PL LOC  
 and wanted to see his children.
- (16) *sá jé intáynawt a=gguná-kat ánga*  
 when only jackal 3s=see-VEN 3s.EMP  
 As soon as Jackal saw him coming,
- (17) *intaynawt a=mmúqus-an ənd(a) ánga*  
 jackal 3s=meet-ALL with 3s.EMP  
 Jackal went to meet him.
- (18) *a=cc(i) áa-s(e) yeed-án bárr-en bé*  
 3s=say 3s=DAT return-ALL child-PL LOC  
*káhar i=gguná nín i=té-yixrəm*  
 when 3p=see 2s.O 3p=FUT-disobey  
*i=m-wánjin ayáy qaarán*  
 3p=SUBJ-refuse 1s.IO study.VN  
 He said to him: “Turn away from the children. When they see you, they will disobey, they will refuse to study (for me).”
- (19) *a=ggung(ú)-án áa-se báarar fóo-da*  
 3s=guide-ALL 3s=DAT child one-INT  
 He guided one child to him.

- (20) *a-ggar bárr-en da a-ffóoda nə-goor(á) íi-ka*  
 3s=find child-PL INT SG-one FOC-sit 3p=LOC  
 It was found that (regarding) the children, one was left of them.
- (21) *a-ggunḡ(ú)-án áa-se n a*  
 3s=guide-ALL 3s=DAT SEP 3s  
 He guided it to him,
- (22) *a-ss-ékn(a) áa-se n a*  
 3s=CAUS-see 3s=DAT SEP 3s  
 showed it to him,
- (23) *a-yyée-kat ənd(a)-á*  
 3s=return-VEN with=3s  
 he came with it,
- (24) *a-yyéed-an ənd(a)-á*  
 3s=return-ALL with=3s  
 he returned with it
- (25) *har á-dd(a) áa-se n áa-se s-əkn-én ʔaaʂá*  
 until 3s-do 3s=DAT SEP 3s=DAT CAUS-show-PL nine  
 until he had shown it to him nine times.
- (26) *intáynawt ánga dá bárr-en a-b-dumb(ú)-i*  
 jackal 3s.EMP DIC child-PL 3s=IMPERF-cut-3p  
*je (ə)nd(a) a-ffó a-ffó-da a-b-ŋ(á)-i*  
 only with SG-one SG-one-INT 3s=IMPERF-eat-3p  
*har á-bbeen-í har a-fféddə d(a) a-sén(da)*  
 until 3s-be.finished-3s until SG-one.only DIC SG-DEM.FAR  
 As for Jackal, he had simply killed the children one by one and eaten them until they were finished, except for that only one.
- (27) *a-zúbara a-yyéd*  
 SG-warthog 3s=return  
 Warthog returned
- (28) *a-cc(i) áa-s(e) ni-m-d(a)-án a-wátay*  
 3s=say 3s=DAT 2s-SUBJ-do-ALL SG-year  
 (and) he (Jackal) said to him: "Wait a year."
- (29) *har á-dd(a)-an a-wátay*  
 until 3s-do-ALL SG-year  
 When he had spent a year (away),
- (30) *a-yyíləs a-yyée-kat ánga*  
 3s-repeat 3s=return-VEN 3s.EMP  
 he came again to him (Jackal).

- (31) *a-ttén a-cc(i) áa-s(e)*  
 3s=arrive 3s=say 3s=DAT  
 He (Jackal) arrived and said:
- (32) *bárr-en i-yyíytəm məffīn aya-bbáaya s(a)*  
 child-PL 3p=finish but 1s=want COMP  
*ay-tə-ťaw aarú fo báara nángo se*  
 1s=FUT-reach man IND be that.place DEM.FAR  
*har ni-m-d(a) áa-se a-sáafu*  
 until 2s=SUBJ-do 3s=DAT SG-greeting  
 “The children have finished their studies (of the Koran) but  
 I want to go to a man who is over there so that you may greet  
 him.”
- (33) *áaru ayo sé a-cc(i) áa-se ci na=á?*  
 man DET DEM.FAR 3s=say 3s=DAT who be=3S  
 “That man, he said to him, who is it?”
- (34) *a-cc(i) áa-s(e) éelaw sa hé (a)-hínjin kuná*  
 3s=say 3s=DAT elephant COMP thing 3s=be.much find.VN  
 He said to him: “It’s Elephant who is very ill.”
- (35) *báarar ayo nn a-ffóod(a) goorá záyri ayo sén(da) ənd(a)*  
 child DET GEN SG-one sit day DET DEM.FAR with  
*ay=n gá intáynawt a-ddumb(u) ánga*  
 3s=GEN self jackal 3s=take 3s.EMP  
*a-ηη(á)=a*  
 3s=eat-3s  
 The only child that was left, that very day Jackal had killed and  
 eaten him.
- (36) *a-hang(á) ənd(a) ánga n(e) áyda*  
 3s=accompany with 3s.EMP place DEM.PROX  
 He (Warthog) accompanied him from there
- (37) *ho sénda har á-tten éelaw daw*  
 thing.DEBR DEM.FAR until 3s=arrive elephant LOC  
 until he arrived at Elephant’s (place).
- (38) *s(a) a-ggaar-á he (a)γ(o)óoda Məssiinaγ*  
 when 3s=find-3s thing DET DEM God  
*a-ff-éxlək-kat ay=n i-múdar-an ka*  
 3s=CAUS.be.created-VEN 3s=GEN PL-animal.PL LOC  
*káamil i-bb-ékrəm áa=daw.*  
 all 3s=IMPERF-rest 3s=LOC  
 When he found him, all what God created among his animals  
 was resting at his place.



- (39) *ínnazag-en i-bb-ákrəm sé(nda)*  
 hyena.PL 3s=IMPERF-rest DEM.FAR  
 Hyenas were resting there,
- (40) *t-ə-wáys-in káamululláahi i-bb-ákrəm sén(da).*  
 F-PL-game-PL absolutely.all 3s=IMPERF-rest DEM.FAR  
 all kinds of game was resting there.
- (41) *áyw(a) a-kkóy-kaat-i jé*  
 well 3s=leave-VEN=3p simply  
 Well, he simply approached them.
- (42) *a-cc(i) azúbara se káy-an n(e) áyda har*  
 3s=say warthog DAT stand-ALL place DEM.PROX until  
*áya-m-ṭaaw-i aya-m-d(a) íi-se asáafu jinjiná.*  
 1s=SUBJ-reach 1s=SUBJ-do 3p=DAT greeting first  
 He said to Warthog: “Stay here until I reach them and greet them first.
- (43) *id(da) kár ni-ttén íi-daw*  
 because when 2s=arrive 3p=LOC  
*zam(á) éelaw hé (a)-hínjin áa-s(e) kuná*  
 after elephant thing 3s=be.much 3s=DAT find.VN  
*ni-ss-ákəryis*  
 2s=CAUS-open.teeth  
*i-gguná ni-n t-a-káryas-t*  
 3p=see 2s=GEN F-SG-open.teeth-F.SG  
*i-tá-ci górgor ni-b-górgor i-n a-miiran k(a)*  
 3p=FUT-say laugh 2s=IMPERF-laugh 3p=GEN SG-sick.person LOC  
*i-m-wí nín*  
 3p=SUBJ-kill 2s.O  
 Because, when you arrive there, after Elephant is very ill and you show your teeth, they see your grimace and will think that you are laughing at their sick person. They will kill you.
- (44) *áyw(a) a-kkóy har á-ṭṭaaw-i.*  
 well 3s=leave until 3s=reach=3s.O  
 Well, he left until he reached them.
- (45) *a-ggun(á) éelaw*  
 3s=see elephant  
*a-ggáar-a hé (a)-hínjin áa-s(e) kuná.*  
 3s=find=3s.O thing 3s=be.much 3s=DAT find.VN  
 He saw Elephant and found (that) he was very ill.

- (46) *a-cc(i)íi-s(e) éelaw adí za a-cc(i) íi-s(e)*  
 3s=say 3p=DAT elephant ANA LC 3s=say 3p=DAT  
*áy=n saffarí aya-bbáay-a*  
 3s=GEN medicine 1s-know=3s.O  
 He said to them: “So Elephant, he said to them, his medicine, I know it.”
- (47) *i-cc(i) áa-s(e) ci n(a) áy=n saffarí?*  
 3p=say 3s=DAT who be 3s=GEN medicine  
 They said to him: “What is his medicine?”
- (48) *a-cc(i) íi-s(e) a-sé-mmay saffari (ə)nd-án̄ga wiji*  
 3s=say 3p=DAT 3s=NEG.IMPERF-have medicine with-3s.EMP is.not  
*a-cc(i) íi-s(e) a-zúbara n éefam ən-tə-húur(u)*  
 3s=say 3p=DAT SG-warthog GEN grease EXM-FUT-enter  
*ay=n t-í-nzar kor-korr-í*  
 3s=GEN F-PL-nostril DUP-be.hot-ADJZR  
 He said to them: “There is no medicine except, he said, hot grease of a warthog that enters his trunk.”
- (49) *i-cc(i) áa-s(e) a-zúbara za mán né k(a)*  
 3p=say 3s=DAT SG-warthog LC whereplace LOC  
*ar-tə-kun(á)-a?*  
 1p=FUT-find=3s.O  
 They said to him: “So a warthog, where will we find it?”
- (50) *a-cc(i)íi-s(e) a-zúbara lám aya-yyímmər-kat*  
 3s=say 3p=DAT SG-warthog EXCL 1s=bring-VEN  
*a-ffó f-káy nángo ka marad-óoda*  
 SG-one IMPERF-stand place.that LOC now-DEM  
 He said to them: “A warthog, thanks to God, I brought one that stands over there now.”
- (51) *aarú a-bbáaya s(a) a-tə-yíydər ná ayo*  
 man 3s=want COMP 3s=FUT-betray OPP DET  
*idd(á) á-bben ay=n bárr-en a-ηη(á)-i*  
 because 3s=finish 3s=GEN child-PL 3s=eat=3p.O  
 He wanted to betray the other one because he had finished his children and eaten them.
- (52) *áywa i-cc(i) áa-se kun(a) áari se n án̄ga!*  
 well 3p=say 3s=DAT find 1p DAT SEP 3s.EMP  
 “Well, they said to him, get it for us!”
- (53) *a-yyizzár-an íi-s(e)*  
 3s=go.ahead 3p=DAT  
 He went ahead of them.

- (54) *a-zúbara a-b-guná-kaat(-a) a-bb-əzzár*  
 SG-warthog 3s=IMPERF-see-VEN=3s.O 3s=IMPERF-go.ahead  
*bor-én s(e)*  
 person-PL DAT  
 Warthog saw him coming ahead of the people,
- (55) *a-kkóy-kat i-múdar-an*  
 3s=leave-VEN PL-animal-PL  
 he came (with the) animals.
- (56) *har j(é) í-múdar-an i-kkáy-kat ənd(a) a-zúbara*  
 until only PL-animal.PL 3p=stand-VEN towards SG-warthog  
 As soon as the animals stopped next Warthog,
- (57) *i-ddin(i) áŋg(a) í-kkóy ənd(a)=á har í-ttaw*  
 3p=take 3s.EMP 3p=leave COMP=3s until 3p=reach  
 they took him, left with him until they reached (Elephant's  
 place),
- (58) *i-ddumb(ú)=a*  
 3p=cut=3s  
 they killed him.
- (59) *i-ddin(i) áy=n maan(i)*  
 3p=take 3s=GEN grease  
 They took his grease,
- (60) *i-kkos-kóos(-a)*  
 3p=DUP-cut=3s  
 cut it into pieces
- (61) *i-dd(a) áŋga kussu ká*  
 3p=do 3s.EMP cooking.pot LOC  
 and put it into a cooking pot.
- (62) *ho sénda har a-hínjin wás.*  
 thing.DEBR DEM.FAR until 3s-be.much boil.VN  
 (They did) this until it was boiling very much.
- (63) *áywa a-cc(i) íi-se wa nn(a) ayáy sa n a*  
 well 3s=say 3p=DAT IMP.PL give 1s DAT SEP 3s.O  
*ayáy nə-b-d(á)=a ay=n t-ínzar ka*  
 1s.EMP FOC-IMPERF-do=3s.O 3s=GEN F-PL-nostrilLOC  
 "Well, he said to them, give (pl) it to me! It's me who will put it  
 into his trunk."
- (64) *i-nn(a) áa-se n á*  
 3p=give 3s=DAT SEP 3s.O  
 They gave it to him.

- (65) *a=yyíftən tugúdu*  
 3s=climb tree  
 He climbed a tree,
- (66) *a=kkeedí tugúdu n beená*  
 3s=be.up tree GEN top  
 he was up in the tree.
- (67) *aywa a=cc(i) íi=se wa ggédəm áa=b(e) ándi káamil*  
 well 3s=say 3p=DAT IMP.PL lay 3s=LOC 2p all  
*andə=mm-ədbul áa=be n(e) áyda jé har*  
 2p=SUBJ-heap.up 3s=LOC place DEM.PROX only until  
*ándə=m-fugu áa=ka*  
 2p=SUBJ-look.down 3s=LOC  
*ba fér ayáy ay=n t-í-nzar*  
 IMP.PL open 1s.IO 3s=GEN F-PL-nostrils  
 “Well, he said to them, lay(pl) on him, you(pl) all! Heap simply  
 up on him here so that you look down on him. Open(pl) his  
 trunk for me!”
- (68) *a=ddiní maaní hínjin korr(á)*  
 3s=take fat be.much hot.VN  
 He took the very hot fat,
- (69) *a=ddá h(e) óoda*  
 3s=do thing DEM  
 he did this,
- (70) *a=ss-og(á)=a éelaw ən t-í-nzar se*  
 3s=CAUS-be.near=3s elephant GEN F-PL-nostrils DAT  
 he approached it to the nostrils of Elephant,
- (71) *a=mmún áa=ka n a jé*  
 3s=pour 3s=LOC SEP 3s only  
 he poured it simply into them.
- (72) *éelaw korr(á) a=zzur(ú) áy=n banjú ka*  
 elephant heat 3s=run 3s=GEN head LOC  
*marád-d(a) ənd(a) áy=n jinjí*  
 now-DIC with 3s=GEN neck  
 As for Elephant, heat was immediately racing through his head  
 and his throat.
- (73) *éelaw a=ddá h(e) óoda*  
 elephant 3s=do thing DEM  
 Elephant did this:

- (74) *a=yyírşək ənd(a) áy=n kamb-én harkíd áy=n c-en*  
 3s=shake with 3s=GEN arm-PL too 3s=GEN leg-PL  
 he shook his arms and also his legs.
- (75) *he (a)γ(o) óoda b-γəlíy-γəli-a i-múdar-an ka*  
 thing DET DEM IMPERF-circle-DUP=3s.OPL-animal.PL LOC  
 This (made) him turn around among the animals.
- (76) *káamululláh(i) ii-m-an i-hun(ú)=i*  
 absolutely.all PL-soul-PL 3p=leave=3p  
 Everybody died,
- (77) *i-kkás t-ə-lágaz-an sən(da) ka*  
 3p=be F-PL-melon-PL DEM.FAR LOC  
 they died there. (Lit: they became melons there.)
- (78) *a-bíji a-ss-əwəl c-én a-ttérəgğə(t)-kat*  
 SG-jackal 3s=CAUS-be.sharp leg-PL 3s=jump.down-VEN  
 Jackal stretched his legs and jumped down.
- (79) *éelaw ənd(a) áy=n g(a) a-bbún*  
 elephant with 3s=GEN self 3s=be.dead  
 Elephant himself was dead.
- (80) *a-bíji a-mm-éntəz ná ayo k(a)*  
 SG-jackal 3s=SUBJ-pull OPP DET LOC  
 Jackal pulled on this one
- (81) *a-m-ci y(á) áya-kkuna háamu zəróoda!*  
 3s=SUBJ-say EXCL 1s=find meat today  
 and said: "Hey, I found meat today!"
- (82) *a-m-górgor a-mm-éntəz ná ayo k(a)*  
 3s=SUBJ-laugh 3s=SUBJ-pull OPP DET LOC  
 He laughed, pulled on another one
- (83) *a-m-ci y(á) áya-kkuna háamu zəróoda!*  
 3s=SUBJ-say EXCL 1s=find meat today  
 and said: "Hey, I found meat today!"
- (84) *aya=b-górgor*  
 1s=IMPERF-laugh  
 I am laughing,
- (85) *All(a) a-sə-sə-ss-əyra ni-n bárr-en*  
 Allah 3s=NEG.IMPERF-CAUS-CAUS-study.BND 2s=GEN child-PL  
*a-zúbara*  
 SG-warthog  
 because God is not teaching your children, Warthog!"

(86) *ho sénda har jé i-múdar-an óoda káamil*  
 thing.DEBR DEM.FAR until only PL-animal-PLDEM all  
*i-hun(u)-án sénda k(a).*  
 3p=leave-ALL DEM.FAR LOC  
 It was (like) that as soon as all these animals had died there.

(87) *a-dd(á) azzamán áng(a) a-bb-ée(d)-kat jé sénda*  
 3s=do period 3s.EMP 3s=IMPERF-return-VEN only DEM.FAR  
*a-b-ηá j(e) í=n haam-én*  
 3s=IMPERF-eat only 3p=GEN meat-PL  
*a-b-górgor íi-ka.*  
 3s=IMPERF-laugh 3p=LOC  
 For quite some time, he simply returned there and ate their  
 meat and laughed about them.

### **Text 2: Part of a Radio emmission**

The following communication was given at the 'Radio rurale de Menaka' on 10th November 2001. The speaker is Hadmahamed ag Mohamed from Inkiringiya, a location some kilometers south-east of Menaka.

It is part three of a speech lasting about one hour interspersed with music. The topic is mostly about 'Decentralization', a new organisational policy of the government.

(1) *Igmattajak ho senda*  
 doubt.taken thing.DEBR DEM.FAR  
 You can be sure

(2) *ay=n t-a-damil-t be komin-tan*  
 3s=GEN F-SG-profit-F.SG LOC community-PL  
*əndayo ooda andə-b-gun(a)-a Maali a-dd(a)=i*  
 DET.PL DEM 2p=IMPERF-see-3s M. 3s=make-3p  
 it is for its (Mali) benefit (that) the communities you(pl) see are  
 made. (*lit*: Mali makes them.)

(3) *wiji bananda a-dda desātralisasiō*  
 is.not in.vain 3s=do decentralization  
 It is not for nothing that it installed the decentralization.

(4) *wiji he be a-dd(a)=i*  
 is.not thing LOC 3s=do=3p  
 It is done for no other reason

*har almital ay(o) ooda ay=tə-har andi se*  
 until example DET DEM 1s=FUT-tell 2p DAT  
 than this example I am telling you(pl):

- (5) *əs bora a=tə-may ay=n alman babo-(a)n*  
 COMP person 3s=FUT-own 3s=GEN herd be.much-ADJZR  
 (Suppose) somebody has his numerous herd,
- (6) *a=m-zi-mmiži marad-ood(a) ay=n barr-en se*  
 3s=SUBJ-CAUS.separate now-DEM 3s=GEN child-PL DAT  
 he divides (it) between his children,
- (7) *a=m-d(a) ənda t-ə-səgar t-ə-səgar*  
 3s=SUBJ-do with F-PL-part F-PL-part  
 he makes several small herds out of them,
- (8) *bora kullu a=m-n(a) aa-se ay=n a-dagar*  
 person each 3s=SUBJ-give 3s=DAT 3s=GEN SG-part  
*ayə f-kuḍ*  
 DET IMPERF-keep  
 he gives to each person his part to keep.
- (9) *bora kaaka s(a) a=f-kuḍ ay=n alman*  
 person whatever COMP 3s=IMPERF-keep 3s=GEN herd  
 Anybody who keeps his herd
- (10) *a=ss-əñsəl-kaat-a*  
 3s=CAUS-win-VEN=3s  
 makes it win (be more numerous)
- (11) *a=m-d(a) aa-se kuḍ giŋ-giman*  
 3s=SUBJ-do 3s=DAT tend.flock.VN DUP-be.good.ADJZR  
 and keeps it well.
- (12) *ay=n ga s(e) a=kkuuḍ=a*  
 3s=GEN self DAT 3s=tend.flock=3s  
 It's for himself he tends it.
- (13) *a=yyirsəy aa-se a=yyirsəy aa-se*  
 3s=enlarge 3s=DAT 3s=enlarge 3s=DAT  
 It gets bigger and bigger for him.
- (14) *bora da ay=wani agar kuḍ*  
 person INT 3s=of bad tend.flock.VN  
 (But) the person who is tending it badly,
- (15) *a=hun(u)-an*  
 3s=leave-all  
 it (herd) will disappear.

- (16) *aŋga se a-dda ho se*  
 3s.EMP DAT 3s=do thing.DEF DEM.FAR  
 It's to him(self) he did that.
- (17) *He (a)yo senda ay-n almital*  
 thing DET DEM.FAR 3s=GEN example  
 That is the parable.
- (18) *aŋga ne (a)yda:*  
 3s.EMP place DEM.PROX  
 Here it is:
- (19) *Maali ay-n ga se addəwəl.*  
 M 3s=GEN self DAT country  
 Mali is a country for its on right.
- (20) *He (a)=kkas addəwəl bə-beer-i*  
 thing 3s-be country dup-be.big-ADJZR  
 It is a large country.
- (21) *wərtilla s(a) alħakumat a=kko(ə)nda a-handag*  
 there.is.not COMP government 3s-go with place  
*kaamil ənd-aŋga wiji ənda ay-n ko-(e)n.*  
 all with-3S.EMP is.not with 3s=GEN owner-PL  
 It does not happen that the government goes to every place  
 except with its owners.
- (22) *Ho senda be a-dda komin-tan*  
 thing.DET DEM.FAR LOC 3s=make commune-PL  
 Because of that, it made communities.
- (23) *ganda kullu aŋga nə=wwaqay gand(a) ayo*  
 land each 3s.EMP FOC-sign land DET  
*s(a) a=mmay*  
 COMP 3s=own  
 Every region has signed (=received responsibility) for the land  
 that it owns.
- (24) *bora kullu a=wwakal ganda ayo*  
 person each 3s=be.entrusted land DET  
*s(a) aŋg(a) a-baara*  
 COMP 3S.EMP 3s=be  
 (To) each person was entrusted the land on which he is.
- (25) *he (a)yo senda be*  
 thing DEF DEM.FAR LOC  
*aŋga be komin-tan i-dda*  
 3s.EMP LOC commune-PL 3p=make  
 Because of that matter, because of this, communities are made,



- (26) *aŋga be desəntralisasyon a-dda*  
 3s.EMP LOC decentralization 3s=make  
 (and) because of this, decentralization is made,
- (27) *aŋga be sekte-tan i-dda.*  
 3s.EMP LOC sector-PL 3p=make  
 (and) because of this, sectors are made.
- (28) *Ittill(a) a-handag a=mmay bor(a) ayo*  
 every SG-place 3s=own person DEF  
*yyiškəd-an ənd(a)-a*  
 originate-ALL with-3s  
*s(a) aŋga ay=n t-a-ggas-t a=f-keedi*  
 COMP 3S.EMP 3S=GEN F-SG-keep-F.SG 3S-IMPERF-be.on  
 Every place has somebody who originates from it, on whom its  
 (land) protection lies.
- (29) *aŋga ay=n i-yaƣad-an i-yyed*  
 3s.EMP 3S=GEN PL-ruin-PL 3p=return  
 It is to him that its disaster returns,
- (30) *aŋga i=n t-ə-nfa i-yyed*  
 3s.EMP 3p=GEN F-SG-be.usefull 3s=return  
 It is to him that its profit returns.
- (31) *Bora da ayo sa ay=n ganda*  
 person INT DEF COMP 3S=GEN land  
*a=b-d(a) agar kuḍ*  
 3s=IMPERF-make bad tend.flock.VN  
 (Now) the person that takes bad care of his land,
- (32) *ayo (a)di ay=n ga s(e) a-dd(a) a-yaƣad.*  
 DEF ANA 3S=GEN self DAT 3s-do SG-ruin  
 that one, it is to himself he did a ruinous thing.
- (33) *Day adi ittill(a) agg aadəm a-ŋgu kaak(a)*  
 too ANA every son.of Adam SG-place whatever  
*a-baara*  
 3s-be  
*a=mmay a-dagar ganda n t-a-ggas-t ka*  
 3s=own SG-share land GEN F-SG-keep-F.SG LOC  
 Also this: every human being, wherever he is, has a share in  
 the protection of the land.

- (34) *ittill(a) agg aadəm kud day sa (ə)n-tə-yigəz*  
 each son.of Adam if too COMP 2s=FUT-guard  
*aḍḍəkəd ayo ka ni-nn alman a-bb-əḍən-kat*  
 measure DEF LOC 2S=GEN herd 3s=IMPERF-graze-VEN  
*har a-mm-ee-kat*

until 3s=SUBJ-return-VEN

*ay=n t-a-ggas-t a-f-keedi nin.*

3s=GEN F-SG-guard-F.SG 3s=IMPERF-be.on 2s

Every man, even if you only guard in the measure (=area) where your herd grazes and returns, its protection is your responsibility.

- (35) *l-manokal-an ingi da a-handag ayo i-wani*  
 PL-rule-PL 3p.EMP INT SP-place DEF 3p=of  
*ka i-n dini a-kkay-kat ganda ka*  
 LOC 3p=GEN take.VN 3s=stop-VEN land LOC  
*ay=n t-a-ggas-t a-f-keedi=i*  
 3s=GEN F-SG-guard-F.SG 3s=IMPERF-be.on=3p

As for the chiefs (=authorities), the area that is theirs from where they stop taking from the land, its protection is their responsibility.

- (36) *a-yiiwan ən koy anga da*  
 SG-camp GEN owner 3s.EMP INT  
*ne k(a) ay=n t-ə-buuyar i-yyee-kat*  
 here LOC 3S=GEN F-PL-female.camel 3p=return-VEN  
*ganda ka anga da*  
 land LOC 3s.EMP INT  
*ay=n t-a-ggas-t a-f-keed(i)=a.*  
 3S=GEN F-SG-guard-F.SG 3S=IMPERF-de.on=3s

As for the head of the camp, there where his female camels (go out to graze and) return on the land, he too, its protection is his responsibility.

- (37) *day adi ittill(a) agg aadəm əb-dida*  
 too ANA each son.of Adam IMPERF-walk  
*a-baara gand(a) ayo Maali wani*  
 3s=be land DEF M. of  
*a-mmay aa-ka t-a-dagar-t t-a-ggas-t wani.*  
 3s=have 3s=LOC F-SG-part-F.SG F-SG-guard-F.SG of

So, every human being walking, being in the country of Mali has in it a little share of its protection.

- (38) *ni-b-d(a) aniyat bora s(e) ayo n-tə-dar*  
 2s=IMPERF-do mind person DAT DEF EXM-FUT-harm  
*ganda*  
 land  
 You pay attention to a person that may harm the land.
- (39) *ni-b-d(a) aniyat a-na-z-gaafa se*  
 2s=IMPERF-do mind SG-ACT-CAUS-evil DAT  
*ən-tə-huuru-kat ganda*  
 EXM-FUT-harm-VEN land  
 You pay attention to an evildoer that may enter the country.
- (40) *ni-b-da aniyat a-baydog se ə-b-dida tarra ka*  
 2s=IMPERF-do mind SG-thief DAT IMPERF-walk bush LOC  
 You pay attention to a thief who walks in the bush.
- (41) *ni-b-da aniyat eeqad se*  
 2s=IMPERF-do mind SG-bush.fire DAT  
 You pay attention to a bush fire.
- (42) *ni-b-da aniyat bora se ən-tə-kos tugud-en*  
 2s=IMPERF-do mind person DAT EXM-FUT-cut tree-PL  
 You pay attention to a person that may cut trees.
- (43) *i-n tugud-en kaamil andə-wan-en*  
 3p=GEN tree-PL all 2p-of-PL  
 Its (land) trees are all yours,
- (44) *i-mmay t-ə-ŋfa bə-beer-i*  
 3p=have F-SG-be.useful DUP-be.big-ADJZR  
 they have great use.
- (45) *day adi bor(a) ayo gguna bora*  
 too ANA person DET see person  
*b-d(a) eeqad*  
 IMPERF-make bush.fire  
*wala f-kos tugud-en*  
 or IMPERF-cut tree-PL  
*a-nə-c(i) aa-se he*  
 3s=NEG.PERF-say 3s=DAT thing  
 So, the person who sees somebody putting a fire or cutting  
 trees (and) does not say anything to him,

- (46) *a-m-bay ganda se*  
 3s=SUBJ-know land DEM.FAR  
*i-nn alman jen h(e) ayda k(a) a-kkaŋ*  
 3p=GEN herd only thing DEM.PROX LOC 3s=fall  
*har a-ddumbu-i a-nə-yiryəm aa-se.*  
 until 3s=cut-3p 3s=NEG.PERF-warn 3s=DET

he should know that (this is like) somebody who fell on their herd and slaughtered them and he did not warn him.

- (47) *Day adi ee-dag ayo senda ittilla agg aadəm*  
 too ANA SG-place DET DEN.FAR each son.of Adam  
*ayo f-keedi Maali n ganda kaamil*  
 DEF IMPERF-be.on M. GEN land all  
*a-mmay dərwa, a-mmay alħaq*  
 3s=have right 3s=have right  
*a-tə-yigəz ee-dag ayo a-baara ganda ka*  
 3s=FUT-guard SG-place DET 3s=be land LOC  
*ittill(a) aḍḍəkəd ayo (ə)nda ni-ddəbət ay=n*  
 each measure DET with 2s=can 3s=GEN  
*t-a-ggas-t*

F-SG-guard-F.SG

So, at this occasion, each human being anywhere in the country of Mali has the right, has the responsibility to look after the place where he is in the land with every measure you can protect it.

- (48) *ənd-aŋga ni-ddəbət sa*  
 with-3S.EMP 2s=can COMP  
*(ə)n-tə-maazal ənda ni-n kamba n maazal*  
 2s=FUT-send with 2s=GEN hand GEN send.VN  
 If you can, you act with the act of your hand

- (49) *nanga t-a-raqim-t ni-n iiləs wani*  
 if F-SG-warn-F.SG 2s=GEN tongue of  
*ni-mm-əryəm*  
 2s=SUBJ-warn

or you warn (with) a warning of your tongue.

- (50) *nanga he ni-kkəssan ni-m-koy-kat*  
 if thing 2s=refuse 2s=SUBJ-leave-VEN  
*ni-m-har alħakumat se*  
 2s=SUBJ-tell government DAT

If he (the warned person) refuses, you come and tell the authorities.

- (51) *aŋga nə-ddəbət s(a)*  
 3s.EMP FOC=can COMP  
*a-tə-yiryəm bora ayo (a)yda se.*  
 3s=FUT-warn person DET DEM.PROX DAT  
 It is this (government) that can warn that same person.
- (52) *day adi ganda bora fooda*  
 too ANA land person one  
*a-nə-yixlək-kat ayo ddəbət s(a)*  
 3s=NEG.PERF-creat-VEN DEF can COMP  
*a-tə-yigəz andi se andə-n gand-en.*  
 3s=FUT-guard 2p DAT 2p=GEN land-PL  
 Also this, the land, one person does not exist that can look after your (pl) countryside for you (pl).
- (53) *ni-n ganda ittill(a) agg aadəm ayo ni-gguna*  
 2s=GEN land each son.of Adam DET 2s=see  
*a-kkəmətət ənda he kaamil*  
 3s=harm with thing all  
 (As for) your land, every human being you see (on it), who harms with whatever,
- (54) *ni-m-bay ganda se*  
 2s=SUBJ-know land DEM.FAR  
 you really need to know
- (55) *a-tten ənd(a) a-yaʃad*  
 3s=arrive with SG=ruin  
*nin ənda ni-n ga a-tə-yizzar-kat*  
 2s.EMP with 2s=GEN self 3s=FUT-be.ahead-VEN  
 it arrives with ruin, it is you yourself it will reach first.
- (56) *idda ganda əs-kabahar a-b-maŋŋa*  
 because land maybe-when 3s=IMPERF-be.without.grazing  
*wiji bora fooda ənd(a) ay-n maŋŋ(a)*  
 is.not person one with 3s=GEN lack.food.VN  
*a-tə-dar*  
 3s=FUT-harm  
 Because the land, when it is without grazing, it is not (only) one person the lack of food will harm.
- (57) *ittill(a) agg aadəm maŋŋa a-tə-dar*  
 each son.of Adam lack.food.VN 3s=FUT-harm  
*kud day a-sə-mmay alman ənd(a) ay-n ga*  
 if too 3s=NEG.IMPERF-own herd with 3s=GEN self  
 Everybody will suffer by lack of food, even if he owns no herd himself.

- (58) *maṇṇa aḡo (a)yda a-tə-ṭaw nin.*  
 lack.food.VN DET DEM.PROX 3s=FUT-reach 2s  
 This same lack of food will reach you.
- (59) *əs-kar cinj-en i-sə-kar ittilla agg aadəm*  
 maybe-when rain-PL 3p=NEG.IMPERF-hit each son.of Adam  
*h(e) ad(i) a-tə-daṛ.*  
 thing ANA 3s=FUT-harm  
 If the rains do not fall, everybody will eventually suffer.
- (60) *daḡ adi ee-dag aḡo senda aṅga be*  
 too ANA SG-place DET DEM.FAR 3s=EMP LOC  
*ittill(a) agg aadəm*  
 each son.of Adam  
*a-m-nahad a-handag aḡo a-baara ganda ka.*  
 3s=SUBJ-guard SG-location DET 3s=be land LOC  
 Also this, at that occasion, because of this, may everybody take  
 care of the land where in the region he is.
- (61) *a-mm-əgəz ay-n ga se*  
 3s=SUBJ-guard 3s=GEN self DAT  
*wiji bora fo se*  
 is.not person IND DAT  
 May he look after (it) for himself, not for someone else.

## Appendix II

### 2. Verbs with their causative and passive forms

The following lists give a number of verbs that are Songhay cognates that take a root from Tamasheq when they are causativized or passivized.

A presentation of causative and passive morphemes is found in 3.1.3.2 and 3.1.3.4 respectively. Double causatives are discussed in 3.1.3.2.3

#### 2.1. One Argument Verbs

One argument verbs are discussed in 4.3.1

<b>gloss</b>	<b>root</b>	<b>causative</b>
to cry	<i>héw</i>	<i>s-əlhá</i>
to eat enough	<i>kunǵú</i>	<i>s-íywən</i>
to fall	<i>káŋ</i>	<i>f-əǰǰər</i>
to fly	<i>şót</i>	<i>sə-ss-əgəd</i>
to get up	<i>tunú</i>	<i>s-əŋkər</i>
to go down	<i>zumbú</i>	<i>z-ə-zəb-ət</i>
to inter in	<i>húuru</i>	<i>z-úguz</i>
to leave	<i>kóy</i>	<i>s-əǵla</i>
to depart	<i>hunú</i>	<i>s-əfəl</i>
to be placed	<i>keení</i>	<i>f-infá</i>
to run	<i>zurú</i>	<i>z-əzəl</i>
to sit	<i>gorá</i>	<i>f-áγam</i>
to spend the day	<i>hóoyay</i>	<i>s-əklá</i>
to stop	<i>káy</i>	<i>s-əbdəd</i>

<b>gloss</b>	<b>root</b>	<b>causative</b>
to suckle	<i>káŋkam</i>	<i>s-ə̀ŋkəʂ</i>
to be upright	<i>káy</i>	<i>s-oytá</i>
to walk	<i>didá</i>	<i>ʒi-ʒéwəŋk-ət</i>

## 2.2 Two Argument Verbs

Verbs with two arguments are discussed in 4.3.3.

The form of the Songhay root corresponds to the singular imperative.

<b>gloss</b>	<b>IMP</b>	<b>causative</b>	<b>passive</b>	<b>gloss (passive)</b>
to bring	<i>záw</i>	<i>ʃí-ʃf-iwi</i>	<i>t-ə̀wi</i>	
to call somebody	<i>céw</i>	<i>s-ə̀yɾət</i>	<i>túw-ayra</i>	
to climb/ride	<i>keedí</i>	<i>ʂ-ə̀wəŋ</i>	<i>t-ə̀wəŋ</i>	
to cut/slaughter	<i>dumbú</i>	<i>z-ə̀gzəm</i>	<i>t-ə̀gzəm</i>	
to do	<i>dá</i>	<i>ʃ-íga</i>	<i>t-ə̀ga</i>	
to drink	<i>nín</i>	<i>ʃ-íʃu</i>	<i>t-íʃu</i>	
to eat	<i>ŋá</i>	<i>ʃ-íkfa</i>	<i>t-ə̀kfa</i>	
to fight (also verbally)	<i>zóɣ</i>	<i>s-ə̀k(ə)nəs</i>	<i>t-ə̀knəs</i>	be shunned
to gather (food)	<i>habá</i>	<i>s-ə̀fɾəd</i>	<i>t-ə̀fɾəd</i>	
to give	<i>ná</i>		<i>t-ə̀kfa</i>	
to hear	<i>mó</i>	<i>s-ə̀slá</i>	<i>túw-ə̀sla</i>	
to hit	<i>kár</i>	<i>ʃ-ə̀wwət</i>	<i>t-ə̀wwət</i>	lead (animals)
to jump over	<i>ʂót</i>	<i>sə-ss-ə̀gəd</i>	<i>túw-ə̀gəd</i>	
to kill/hit	<i>wí</i>	<i>sə-ssúw-anyá</i>	<i>túw-anyá</i>	
to know	<i>báy</i>	<i>ʃí-ʃʃin</i>	<i>túw-ə̀san</i>	
to lead pulling	<i>gungú</i>	<i>sə-ss-ə̀lwi</i>		



<b>gloss</b>	<b>IMP</b>	<b>causative</b>	<b>passive</b>	<b>gloss (passive)</b>
to leave alone	<i>dís</i>		<i>túw-iyá</i>	
to look at	<i>háaʃi</i>	<i>s-úswuɖ</i>	<i>t-úswuɖ</i>	
to look for	<i>hurrú</i>	<i>s-égmi</i>	<i>t-égmi</i>	
to love/want	<i>báaya</i>	<i>f-éera</i>	<i>túw-əra</i>	
to read/study	<i>qaarán</i>	<i>sé-ss-əyra</i>	<i>túw-ayra</i>	
to say	<i>cí</i>	<i>sé-ssuw-an ~ f-é-ʃʃuw-an</i>	<i>túw-əŋŋa</i>	
to see	<i>guná</i>	<i>s-əkná</i>	<i>túwəni ~ túwəna</i>	
to steal	<i>záy</i>	<i>fí-ʃʃ-əkəɾ</i>	<i>t-əkəɾ</i>	
to swallow	<i>gôn</i>	<i>z-əlməz</i>	<i>t-əlməz</i>	
to take	<i>díní</i>	<i>z-əbəz</i>	<i>t-əbəz</i>	be arrested
to take out	<i>káw</i>	<i>f-úkuf</i>	<i>t-úkuf</i>	
to taste sth.	<i>tabá</i>	<i>s-əndək</i>	<i>t-əndək</i>	
to tell	<i>hár</i>		<i>t-əməl</i>	
to throw	<i>fúr</i>	<i>sé-ss-əgər</i>		
to hinder	<i>gaŋgá</i>	<i>s-əgdəl</i>		
to buy	<i>dáy-kat</i>	<i>z-ənza-kat</i>		
to sell	<i>dáy-an</i>	<i>z-ənz-án</i>		
to guard	<i>gár</i>	<i>z-əgəz</i>	<i>t-əgəz</i>	
to accompany	<i>haŋgá</i>	<i>fí-ʃʃ-idu</i>	<i>túwa-fí-ʃʃ-idu</i>	
to wash	<i>hímay</i>	<i>fí-ʃʃ-ərəɖ</i>	<i>túwa-fí-ʃʃ-ərəɖ</i>	
to guide pushing	<i>taŋgá</i>	<i>f-əwwət</i>	<i>t-əwwət</i>	

### 2.3 Labile Verbs

Labile verbs are discussed in 3.1.3.1 and 4.3.2.

The form of the Songhay root corresponds to the singular imperative, which implies that the translation of the transitive use is given.

gloss	IMP	causative	passive	gloss (passive)
to break (leg)	<i>dígdig</i>	<i>z-ərzá</i>		
to break (thing)	<i>báq</i>	<i>z-ərzá</i>	<i>t-ərzá</i>	
to approach	<i>mán</i>	<i>z-éhəz(-kat)</i>		
to construct	<i>cén</i>	<i>ʃ-əkṛəʃ</i>	<i>t-əkṛəʃ</i>	
to cook	<i>hiná</i>	<i>sé-ss-əŋŋa</i>		
to cut	<i>kós</i>	<i>ʃ-əydeʃ</i>	<i>t-əydeʃ</i>	
to dig	<i>fás</i>	<i>z-əyəz</i>	<i>t-əyəz</i>	
to distance from	<i>mór</i>	<i>ʃ-égəg</i>		
to dress	<i>dáb</i>	<i>s-əlsá</i>		
to fill	<i>ṭón</i>	<i>s-ətkər</i>	<i>t-ətkər</i>	
to give birth	<i>háɣ</i>	<i>ʃi-ʃ-əru</i>		
to pour	<i>dudú</i>	<i>sé-ss-ənyəl</i>		
to pound	<i>dút</i>	<i>z-íidiɣ</i>	<i>t-édiɣ</i>	
to untie	<i>fer</i>	<i>ʃi-ʃúw-əra</i>		
to reach	<i>ṭáw</i>	<i>ʃé-ʃ-əwəɖ</i>	<i>t-əwəɖ</i>	have caught up with
to sow	<i>ṭáatab</i>	<i>z-əzmi</i>	<i>t-əzmi</i>	
to moisten	<i>ṭáy</i>	<i>s-əbdəg</i>		caus: make wet
to throw out	<i>mún</i>	<i>sé-ss-ənyəl</i>	<i>túw-ənyəl</i>	
to tie up	<i>háw</i>	<i>sə-súw-aqan</i> <i>~ ʃi-ʃúw-aqan</i>	<i>túw-aqan</i>	
to enlarge	<i>bér</i>	<i>s-əmyər ~</i> <i>t-əmyər</i>	<i>t-əmyər</i>	be honoured

<b>gloss</b>	<b>IMP</b>	<b>causative</b>	<b>passive</b>	<b>gloss (passive)</b>
		<i>f-ámɣar</i>		
to dry	<i>qóq</i>	<i>s-éɣər</i>		
to hide	<i>túk</i>	<i>z-égəz</i>	<i>t-égəz</i>	

#### **2.4 Verbs of Songhay origin taking a derivational prefix**

This list contains all verbs of this type that were found in texts and confirmed with informants. Some more came up by elicitation, which are not listed here because the informants did not always agree on the correctness of the form.

<b>gloss</b>	<b>IMP</b>	<b>causative</b>	<b>passive</b>	<b>gloss (passive)</b>
to be dirty	<i>zíbít</i>	<i>zí-zíbit</i>		
to vomit	<i>yeerí</i>	<i>s-éeri</i>		
to return	<i>yéd</i>	<i>s-eedí</i>		
to be red	<i>cidáy</i>	<i>sí-ciday</i>		
to be long	<i>kukú</i>	<i>sú-kuku</i>		
to sow/dig	<i>fík</i>	<i>sé-ffík</i>	<i>túwa-fík</i>	
to throw out	<i>mún</i>		<i>túwa-mun</i>	
to prick	<i>tím</i>	<i>sé-ttim</i>	<i>túwa-tim</i>	to be/get injected

## Appendix III

### *Wordlist: English - Tadaksahak*

In appendix III, an English-Tadaksahak wordlist is given based on the Swadesh 200 item list. Some of the words on the list do not exist in the language (e.g. 'flower', 'snow'). Other words appear twice because of double meanings or idiomatic uses in connection with other words.

The following abbreviations are used:

adj.	adjective
adv.	adverb
conj.	conjunction
ind.	independent (pronoun)
n.	noun
npl	noun only found in plural
num.	number
pl.	plural
postp.	postposition
prep.	preposition
pron.	pronoun
vi.	intransitive verb
vt.	transitive verb

#### A - a

able, to be	vt. <b>báy</b>	and (between noun phrases)	
alive, to be	vi. <b>yiddár</b>		prep. <b>ənda</b>
all	quantifier <b>káamil</b>	animal	n. <b>a-múuder</b>
among	postp. <b>ka</b>	approach, to	vt. <b>mán</b>
amuse oneself, to	vi. <b>hór</b>	arm / hand	n. <b>kambá</b>
ancestor (paternal)	n. <b>baabá</b>	ashes	n. <b>boofj</b>

at (somebody's) *postp.* **daw**

**B - b**

back (bodypart) *n.* **a-rúuru**  
 bad *adj.* **agar**  
 bad, to be *vi.* **yibrár**  
 bark *n.* **barjí**  
 battery *n.* **tóndí**  
 because *conj.* **igdá ~ iddá ~ íd**  
 before s.b. *noun phrase.* **mo ka.**  
 beginning *n.* **bangú**  
 belly *n.* **gungú**  
 big, to be *vi.* **bêr**  
 big, to make *vt.* **bêr**  
 bird (general) *n.* **cíidaw**

bite (animal), to *vt.* **ñá**  
 bite, to *vt.* **nam**  
 black *adj.* **bíibi**  
 black (color) *n.* **bíibi**  
 black, to be *vi.* **bíibi**  
 blacken, to *vt.* **bíibi**  
 blood *npl.* **kud-én**  
 blow (wind), to *vi.* **fúr**  
 bone (general) *n.* **biidí**  
 breathe, to *vi.* **f-ánfəf**  
 burn, to *vt.* **kurú-kuru**  
 burned, to be *vi.* **kurú-kuru**

**C - c**

carve (wooden spoon), to  
*vt.* **kár**  
 child *n.* **báarar**  
 cloud *npl.* **nuun-én**  
 cold (weather) *n.* **fufú**  
 come, to *vi.* **kóy-kat**  
 count, to *vt.* **f-iden**

counting *n.* **f-iden**  
 country *n.* **gánda**  
 cut, to *vt.* **dumbú**  
*vt.* **kós**  
 cut, to be *vi.* **kós**  
 cutting *n.* **kós**

**D - d**

day *n.* **zayrí**  
 dead, to be *vi.* **bún**  
 death *n.* **bún**  
 deep, to be *vi.* **kukú**  
 deepen, to *vt.* **kukú**  
 die, to *vi.* **bún**  
 dig, to *vt.* **fás**  
 digging *n.* **fás**  
 dirt (excrement) *n.* **lés**

dirty, to be *vi.* **lés**  
*vi.* **ziíbit**  
 dirty, to make *vt.* **lés**  
 distance from, to *vt.* **mór**  
 dive, to *vi.* **yífəf**  
 dog (general) *n.* **hánjí**  
 dream *n.* **keení η guná**  
 drink, to *vt.* **nín**  
 dry, to be *vi.* **qóq**

dug, to be *vi. fás*  
dull (knife), to be *vi. bún*

**E - e**

ear *n. hangá*  
earth *n. gánda*  
eat, to *vt. ḡá*  
eating *n. ḡá*  
egg *n. t-áa-fult*

**F - f**

face *n. mó*  
fall (rain), to *vi. kár*  
fall, to *vi. kán*  
familiar with, to be *vt. báy*  
far away, to be *vi. mór*  
fat (on meat) *n. maaní*  
fat, to make *vt. nás*  
father *n. baabá*  
fear *n. hambará*  
fear, to *vt. hambará*  
feather *n. áfraw*  
fiber (plant) *n. barjí*

**G - g**

game (play) *n. hór*  
give, to *vt. ná*  
giving *n. ná*  
good *adj. giḡ-gimán*  
grandmother *n. nana béeri*  
grandfather *n. baba béeri*

**H - h**

dust *n. a-báaleq*

end *n. bún*  
*n. míya*  
exhausted (battery), to be *vi. bún*  
extinguish (fire, light), to *vt. wí*  
eye *n. mó*

fight, to *vi. zóy*  
fire *n. huurú*  
(fire)wood *n. tugúdu*  
fish *n. a-mánana*  
five *num. fammúf*  
flow, to *vi. dudú*  
fly, to *vi. šót*  
foot / leg *n. cáy*  
four *num. akkóz*  
from *postp. ka*  
fruit *n. ízzay*  
fur *npl. haab-én*

grass (green) *n. yél*  
green (grass), to be *vi. tay*  
green solution *n. garúura*  
ground *n. gánda*  
guts *npl. áadan-an*

hair	<i>npl.</i> <b>haab-én</b>	he/she/it	<i>ind. pron.</i> <b>ánga</b>
hand / arm	<i>n.</i> <b>kambá</b>	hit, to	<i>vt.</i> <b>kár</b>
head	<i>n.</i> <b>bangú</b>	hold, to	<i>vt.</i> <b>yíddər</b>
hear (news), to	<i>vt.</i> <b>mó</b>	hot, to be (warm)	<i>vi.</i> <b>korrá</b>
hear (noise), to	<i>vi.</i> <b>mó</b>	hot, to make	<i>vt.</i> <b>korrá</b>
heart	<i>n.</i> <b>wəl</b>	how? <i>question phrase.</i>	
heat	<i>n.</i> <b>korrá</b>		<b>man əmmək ayó ənda</b>
heavy, to be (T)	<i>vi.</i> <b>tín</b>	hunt (game), to	<i>vi.</i> <b>gimár</b>
heavy, to be	<i>vi.</i> <b>yiltág</b>	husband	<i>n.</i> <b>aarú</b>
here	<i>n.</i> <b>néeda</b>		

## I - i

I	<i>ind. pron.</i> <b>ayay</b>	important, to be	<i>vi.</i> <b>bər</b>
if/when	<i>clause initial particle</i> <b>ənda</b>	impure (religiously), to be	<i>vi.</i> <b>lés</b>
if (hypothetical)	<i>conj.</i> <b>əndár</b>	in	<i>postp.</i> <b>ka</b>
if/when	<i>conj.</i> <b>əs-kábahar</b>		

## J - j

jackal	<i>n.</i> <b>a-biji</b> <i>n.</i> <b>intáynawt</b> <i>n.</i> <b>mó céena</b>	jump (n)	<i>n.</i> <b>şót</b>
		jump over, to	<i>vt.</i> <b>şót</b>

## K - k

kill (animal), to	<i>vt.</i> <b>dumbú</b>	killing	<i>n.</i> <b>wí</b>
kill, to	<i>vt.</i> <b>wí</b>	know, to	<i>vt.</i> <b>báy</b>

## L - l

laid down, to be	<i>vi.</i> <b>keení</b>	lean, to be	<i>vi.</i> <b>yilbák</b>
lake	<i>n.</i> <b>a-yázar</b>	leather	<i>n.</i> <b>kuurú</b>
land	<i>n.</i> <b>gánda</b>	leave a rest, to	<i>vi.</i> <b>cindí</b>
laugh, to	<i>vi.</i> <b>górgor</b>	leave for, to	<i>vt.</i> <b>kóy</b>
laughter	<i>n.</i> <b>górgor</b>	left (side)	<i>n.</i> <b>zálgat</b>
leaf	<i>n.</i> <b>áa-la</b>	leg / foot	<i>n.</i> <b>cáy</b>

length *n. kukú*  
 lie on side, to *vi. yíniftaga*  
 lion *n. tárra nn ízzay*  
*n. áa-har*

**M - m**

male *n. aarú*  
 man *n. aarú*  
 measure *n. míya*  
 meat *n. háamu*  
 month *n. a-yyár*

**N - n**

name *n. mân*  
 narrow, to be *vi. karrós*  
 near to, to be *vi. mán*  
 neck *n. jinjí*  
 new, to be *vi. yaynýy*  
 nice *adj. giñ-gimán*

**O - o**

odor *n. mammaní*  
 old, to be *vi. zén*  
 old, to make *vt. zén*  
 older sibling *n. bêr*

**P - p**

peak (bird) *n. míya*  
 person *n. borá*  
 play (football), to *vt. kár*  
 play (instrument), to *vt. kár*  
 play, to *vi. hór*  
 pond (temporary) *n. a-yázar*

live, to *vi. yiddár*  
 liver *n. taafá*  
 long, to be *vi. kukú*  
 louse (head) *n. geení*

moon *n. a-yyár*  
 mosquito *n. míya kukú*  
*n. t-aa-dás-t*  
 mother *n. naaná*  
 mouth *n. míya*

night *n. cijí*  
 nose *npl. t-í-nzar*  
 nostrils *npl. t-í-nzar*  
 numerous, to be *vi. babó*  
 numerous, to make *vt. babó*

one *n. a-ffóoda*  
 one *num. fóoda*  
 opening *n. míya*

pour, to *vt. dudú*  
 pull sth. heavy, to *vt. húbut*  
 pull, to *vt. yírkøb*  
 push sth./sb., to  
*vt. yíntøg ~ yíntay*



## R - r

red	<i>adj.</i> <b>cidáy</b>	road	<i>n.</i> <b>t-a-dáqat-t</b>
red, to be	<i>vi.</i> <b>cidáy</b>	root (plant)	<i>n.</i> <b>ée-caw</b>
rest	<i>n.</i> <b>cindí</b>	rope (general)	<i>n.</i> <b>karfú</b>
right (side)	<i>n.</i> <b>áayil</b>	rot, to make	<i>vt.</i> <b>fumbú</b>
rise (sun), to	<i>vi.</i> <b>fúr</b>	rotten, to be	<i>vi.</i> <b>fumbú</b>
river (Niger)	<i>n.</i> <b>a-jeráw</b>		

## S - s

salt	<i>n.</i> <b>ciidí</b>	smoke	<i>npl.</i> <b>nuun-én</b>
sand	<i>n.</i> <b>t-a-záazul-t</b>	smooth, to be	<i>vi.</i> <b>selál</b>
say, to	<i>vt.</i> <b>ci</b>	snake (general)	<i>n.</i> <b>gónfi</b>
scratch, to	<i>vt.</i> <b>z-ékmaz</b>	snake, sp	<i>n.</i> <b>gánda η karfú</b>
scratch, to	<i>vi.</i> <b>kúkkuz-it</b>	sneeze, to	<i>vi.</i> <b>tínzit</b>
see, to	<i>vt.</i> <b>guná</b>	some	<i>n.</i> <b>cindí</b>
seed	<i>n.</i> <b>áaḍem</b>	(some)thing	<i>n.</i> <b>hé</b>
sew, to	<i>vt.</i> <b>taatab</b>	son	<i>n.</i> <b>ízzay</b>
sewing	<i>n.</i> <b>taatab</b>	spit, to	<i>vi.</i> <b>s-étəf</b>
sharp (knife), to be	<i>vi.</i> <b>yiwál</b>	split (wood), to	<i>vt.</i> <b>yiftək</b>
short, to be	<i>vi.</i> <b>gazúl</b>	stand up, to	<i>idiom</i> <b>káy béena</b>
sight	<i>n.</i> <b>guná</b>	stay, to	<i>vi.</i> <b>goorá</b>
sing, to	<i>idiom</i> <b>d(a) á-şşak</b>	stepfather	<i>n.</i> <b>babá fumbú</b>
sit, to	<i>vi.</i> <b>goorá</b>	stepmother	<i>n.</i> <b>naná fumbú</b>
sitting	<i>n.</i> <b>goorá</b>	stick sth. into, to	<i>vt.</i> <b>yírzi</b>
skin	<i>n.</i> <b>kuurú</b>	stick (wooden)	<i>n.</i> <b>bundú</b>
sky	<i>npl.</i> <b>i-3ínn-an</b>	stone	<i>n.</i> <b>ṭóndi</b>
sleep	<i>n.</i> <b>keení</b>	stony elevation	<i>n.</i> <b>ṭóndi</b>
sleep, to	<i>vi.</i> <b>keení</b>	stop, to	<i>vi.</i> <b>káy</b>
small size	<i>n.</i> <b>ceená</b>	straight, to be	<i>vi.</i> <b>yáʕad</b>
small, to be	<i>vi.</i> <b>ceená</b>	suck, to	<i>vt.</i> <b>séməm</b>
small, to make	<i>vt.</i> <b>ceená</b>	sun	<i>n.</i> <b>wayní</b>
smell sth., to	<i>idiom</i>	swim, to	<i>vi.</i> <b>yifəf</b>
	<b>mammaní kár borá</b>	swollen, to be	<i>vi.</i> <b>həḍədi</b>

## T - t

tail	<i>n.</i> <b>t-a-lánkaw-t</b>	throw, to	<i>vt.</i> <b>fúr</b>
tall, to be	<i>idiom</i> <b>may kay</b>	tie, to	<i>vt.</i> <b>háv</b>
	<i>vi.</i> <b>kukú</b>	to	<i>postp.</i> <b>ka</b>
tea (leaves)	<i>n.</i> <b>áa-la</b>	tongue	<i>n.</i> <b>íiləs</b>
tether, to	<i>vt.</i> <b>háv</b>	tooth	<i>n.</i> <b>ée-fan</b>
tethered, to be	<i>vi.</i> <b>háv</b>	towards	<i>locative prep.</i> <b>ənda</b>
that (one)	<i>dem.</i> <b>(a)sénda</b>		<i>postp.</i> <b>kám̄ba</b>
them	<i>pron.</i> <b>íngi</b>	trample on sth., to	
there	<i>adv.</i> <b>sénda</b>		<i>idiom</i> <b>káy he ka</b>
they	<i>ind. pron.</i> <b>íngi</b>	tree (general)	<i>n.</i> <b>tugúdu</b>
thin (person/livestock), to be	<i>vi.</i> <b>yilbák</b>	true, to be	<i>vi.</i> <b>dəttət</b>
	<i>vi.</i> <b>jadíd</b>	turn off (radio, TV), to	<i>vt.</i> <b>wí</b>
thin, to be	<i>vi.</i> <b>jadíd</b>	turn, to	<i>vt.</i> <b>yístay</b>
think (that)	<i>vi.</i> <b>yordá</b>	twine (rope), to	<i>vt.</i> <b>kár</b>
this	<i>dem.</i> <b>óoda</b>	two	<i>num.</i> <b>hiŋká</b>
this	<i>dem.</i> <b>áyda</b>	tying	<i>n.</i> <b>háv</b>
three	<i>num.</i> <b>kaarád</b>		

## U - u

ugly, to be	<i>vi.</i> <b>yibrár</b>	use (money) fraudulently, to	
upright, to be	<i>vi.</i> <b>káy</b>		<i>vt.</i> <b>ŋá</b>
upright, being	<i>n.</i> <b>káy</b>		

## V - v

vomit, to	<i>vi.</i> <b>yéeri</b>	vomiting	<i>n.</i> <b>yéeri</b>
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## W - w

walk	<i>n.</i> <b>didá</b>	washed, to be	<i>vi.</i> <b>hímay</b>
walk, to	<i>vi.</i> <b>didá</b>	washing	<i>n.</i> <b>hímay</b>
want, to	<i>v.</i> <b>cí</b>	water	<i>npl.</i> <b>aryén</b>
warn (from danger), to	<i>vt.</i> <b>kár</b>	we	<i>ind. pron.</i> <b>ári</b>
wash, to	<i>vt.</i> <b>hímay</b>	well fed, to be	<i>vi.</i> <b>ŋás</b>

wet, to be	<i>vi.</i> <b>ṭay</b>	why?	<i>interrogative phrase.</i>
wet, to make	<i>vt.</i> <b>ṭay</b>		<b>ci ná hó be</b>
wetness	<i>n.</i> <b>ṭay</b>	wide, to be	<i>vi.</i> <b>yilwá</b>
what is it?	<i>interrogative phrase.</i>	wife	<i>n.</i> <b>surgóy</b>
	<b>ci ná-a</b>	wind	<i>n.</i> <b>hew</b>
when?	<i>interrogative phrase.</i>	wing	<i>n.</i> <b>áfraw</b>
	<b>c(i) agúd</b>	wipe out, to	<i>vt.</i> <b>tús</b>
where? (+action)	<i>interrogative phrase.</i>	wiped out, to be	<i>vi.</i> <b>tús</b>
	<b>mán n(e)</b>	wiping out	<i>n.</i> <b>tús</b>
where? (+noun)	<i>interrogative</i>	with (company)	<i>comitative prep.</i>
	<i>adv.</i> <b>maaná</b>		<b>enda</b>
white	<i>adj.</i> <b>kóoray</b>	with (instrument)	<i>(instrumental)</i>
white (color)	<i>n.</i> <b>kóoray</b>		<i>prep.</i> <b>enda</b>
white, to be	<i>vi.</i> <b>kóoray</b>	withhold sth., to	
who?/what?	<i>interrogative pron.</i>		<i>idiom</i> <b>káy he be</b>
	<b>ci</b>	woman	<i>n.</i> <b>surgóy</b>

## Y - y

year	<i>n.</i> <b>a-wátay</b>	you (sg)	<i>ind. pron.</i> <b>nín</b>
yellow, to be	<i>vi.</i> <b>yaráy</b>	young one	<i>n.</i> <b>ízzay</b>
you (pl)	<i>ind. pron.</i> <b>ándi</b>		

## Appendix IV

### **Wordlist: Songhay cognates in Tadaksahak**

The following word list gives Tadaksahak words which have cognates in Songhay. The list contains 290 items. The words are alphabetically ordered. Pharyngealized consonants follow the non-pharyngealized ones. Signs not used in English follow a similar sign, e.g. /ə/ follows /e/, /ʃ/ follows /s/. After the sign ‘◄’ the cognate is listed with the reference referring to the dictionaries by Heath, KCH for Koyra Chiini (Heath 1998a), KS for Koroboro Senni (Heath 1998b) and DN92 the ‘Lexique Sonjaj – Français’ by Youssouf Mohamed Haïdara et al., DNAFLA 1992. When the closest cognate is from another than these central speech varieties, the name of the location is given, e.g. Bamba, Labbazanga. A few words are only found in the other Northern Songhay languages. They are listed phonetically with the corresponding language, e.g. Tagdal [...]. Tagdal and Tabarog cognates are taken from Rueck & Christiansen (1999); Tasawaq cognates were provided by Maarten Kossmann (Leiden).

The abbreviations are the same as those in the previous list

### A

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**=a** *pron.* him, her, it; 3s direct object clitic ◄ a ‘he, she, it’ KCH:19

**a-** *pron.* he, she, it; 3s subject clitic ◄ a ‘he, she, it’ KCH:19

**aarú** *n.* man, husband; male ◄ ar; har KCH:118; aru ‘man; male’ KS:30

*pl.* **arw-én**

**addá** *n.* long blade, machete ◄ adda ‘machete-like blade’ KCH:19; KS:15

*pl.* **addá-tin**

**a-ffó** *n.* one (and the other) ◄ a-foo ‘one’ KCH:20

**a-ffóo-da** *n.* one; one by one, in distributive phrase ◄ a-foo ‘one’

KCH:20

**ayay** *pron.* I, me; independent 1s pronoun ◄ agey ‘I, full 1s pronoun’

KS:17; Bamba: ayey

**ahún** *v* take it! only used in imperative ◄ hūū! ‘here! take!’ KS:168

**ángga** *pron.* he, she, it; him, her, it; independent 3s pronoun ◄ nga - ŋa

'he, him, she, her, it' KCH:96

**áari** *pron.* we, us; independent 1p pronoun ◀ ir - iri 'we, us' KS:171

**ary-én** *npl.* water ◀ hari 'water' KCH:119; KS:148

## B

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**baabá** *n.* father; brother of the father; ancestor ◀ baaba 'father; father's brother' KCH:35; KS:34 *pl.* **baab-én**

**baba béeri** *n.* grand-father ◀ baaba-beer 'father's elder brother' KCH:36; baaba-beeri 'father's elder brother' KS:34.

*pl.* **babá beer-án**

**babá fumbú** *n.* stepfather ◀ baba-fumb-o 'stepfather' KCH:36; KS:34 *pl.* **babá fumb-én**

**baaní** *n.* pod of *Acacia nilotica* containing tannic acid used to tan skins; by extension also tannic acid ◀ baani 'pod of acacia tree' KCH:39

**baarí** *n.* horse (general) ◀ bari 'horse' KCH:41; KS:41 *pl.* **baar-én**

**baafí** *n.* water bag ◀ baas(u)-ije (lit: well-child) 'recipient and cord for drawing water from well' KCH:42; baasu '(water) well' KCH:42.

*pl.* **baaf-én**

**babó** *vi.* to be many, to be numerous ◀ bobo 'much, many' adj KCH:49  
— *vt.* make numerous

**báaya** *vt.* to love; to want ◀ baa 'want' KCH:35; KS:33  
— *n.* love *pl.* **báay-en**

**bán** *vi.* to be soft; to be fragile; to be docile ◀ baan 'be soft' KCH:38; ban 'be soft, tender' KS:37  
— *vt.* make soft; make tender

**bána** *n.* salary ◀ bana 'wages, fee' KCH:28; 'pay' KS:37 *pl.* **bána-tan**

**bangáw** *n.* hippopotamus ◀ baŋa 'hippopotamus' KCH:38

**bangú** *n.* head; beginning; front ◀ bomo 'head; top, front' KCH: 49; boŋ (boŋa) 'head, top part' KS:52 *pl.* **banj-én**

**bangú** *n.* well; waterhole ◀ bangu 'seasonally flooded ground, seasonal swamp' KCH:39; KS:39 *pl.* **banj-én**

**báara** *vi.* to exist; to be available ◀ bara 'exist' KCH:40 KS:40  
— *vt.* to be in

**barjí** *n.* bark; fiber (plant) ◀ abirjan 'fibre des arbres' DN92; Cf. Tagdal [bar'gi]; Tabarog [bar'gi]; Zarma bàrjì 'lien en écorce d'arbre' *pl.* **barj-én**

**barmáy** *n.* change money for payment ◀ barmey 'change for payment'

KCH:41

**báy** *vt.* to know; to be able to ◀ bey 'know, be familiar with (sth, sb)  
KCH:45; KS:45

**be** *postp.* on; above; about ◀ beene 'sky; upper area, upstairs' postp  
'above, on top' KCH:43

**bén** *vi.* to be finished

— *vt.* to finish ◀ ben (intr) 'finish, end, be used up' KCH:43; KS:44

**beená** *n.* top; upper part ◀ beene 'sky; upper area' KCH: 43; beena 'top,  
topmost part of area; sky' KS:44

**bér** *vi.* to be big, important; to be grown up ◀ beer 'be big in size; be  
grown up, old' KCH:44; beeri KS:44

— *vt.* to make big, to enlarge

— *n.* older sibling ◀ beere 'older sibling' (esp. of same sex) KCH:44

*pl.* **béer-an**

**babbá** *vt.* to carry (baby) on back wrapped in a piece of cloth ◀ babba  
'carry baby in a bundle on one's back' KCH:36; KS:40

**bi** *n.* yesterday; also adverbial use ◀ bii 'yesterday' KCH:46; KS:46

**bi** *n.* shadow, visual representation of sth./sb., photo ◀ bii 'shadow;  
image' KCH:46; KS:46 *pl.* **biy-én**

**biibi** *vi.* to be black ◀ bibi 'be black, dark' KCH:46

— *vt.* to make black, to blacken

— *n.* blackness

— *adj.* black

**biidí** *n.* bone (general) ◀ biiri 'bone' KCH:48; biri KS:48 *pl.* **biid-én**

**bíngi** *n.* male donkey ◀ binji 'âne mâle' DN92 *pl.* **bíngi-tan**

**bitá ~ biitá** *n.* kind of cereal meal ◀ bita 'millet porridge' KCH:49; KS:49

**booff** *n.* white ashes; left after cooking fire ◀ boosi 'ashes' KCH:51

*pl.* **boof-én**

**borá** *n.* person ◀ boro 'person' KCH:51; KS:55 *pl.* **bor-én**

**bóy** *vi.* to move (camp) ◀ boy 'drag; herd, drive (animals ahead of  
oneself)' KCH:52; KS:56

**bún** *vi.* to be dead, to die; (fire, light) go out; (battery) be exhausted

◀ bun 'die' KCH:54

— *n.* death; end (of month) *pl.* **bun-én**

**bundú** *n.* (wooden) stick ◀ bundu 'stick (of wood); walking stick, cane'

KCH:55; KS:59 *pl.* **bund-én**

## C

- caráy** *n.* friend, comrade; another of the same kind ◀ cere ‘friend, peer, agemate’ KCH:58; KS:66 *pl.* **car-én**
- cáw** *vt.* to call sb ◀ cow ‘call sb, summon, send for sb’ KCH:63  
— *n.* call *pl.* **caw-én**
- cáy** *n.* leg, foot; (car) wheel ◀ cee ‘foot, leg’ KCH:56; KS:63 *pl.* **c-en**
- caycáy** *vt.* to weave (mat) ◀ key ‘weave’ KCH:163
- cén** *vi.* to be pitched (tent), to be constructed (house)  
— *vt.* to pitch (tent), to construct (house) ◀ cen ‘build, erect (housing)’ KCH:57; cin ‘build (house)’ KS:69
- ceená** *vi.* to be small, young ◀ ciina ‘be small, young, infrequent, rare, sparse’ KCH:60  
— *vt.* to make small  
— *n.* small size  
**mó céena** *n.* jackal
- ci** *interrogative pron.* who/what? interrogative word asking for the identity of a person/item ◀ cin ‘what?’ KS:69; mey ‘who?’ KCH:194  
**ci ná-a** *interrogative phrase.* what is it?  
**ci ná hó be** *interrogative phrase.* why?
- cí** *n.* similar thing, kind ◀ sii ‘kind, type’ KCH:219; cine adj ‘semblable’ KS:70
- cí** *vt.* to say sth. to sb.; also used before quotation ◀ cii ‘speak’ KCH:59  
— *vi.* to want to
- cídaw** *n.* bird (general) ◀ cirow ‘bird’ KCH:62 *pl.* **ciid-an**
- cíday** *n.* underneath ◀ cire postp. ‘under’ KCH:62; KS:70
- cidáy** *vi.* to be red ◀ cirey ‘be red’ KCH:62  
— *adj.* red
- cidi-cidi** *vi.* to be very red ◀ cirey ‘be read’ KCH:62
- cigóoda** *n.* this (coming) night; tonight ◀ cigoo ‘tonight’ KCH:59 Bamba: cij-oo da ‘tonight’ KS:69
- ciidí** *n.* salt ◀ ciiri ‘salt’ KCH:62 *pl.* **ciid-én**
- ciimí** *n.* truth ◀ ciimi ‘truth’ KCH:60 *pl.* **ciim-én**
- cijí** *n.* night ◀ ciji ‘night’ KCH:59 *pl.* **cij-én**
- cijín** *n.* last night ◀ cijin ‘night’ KS:69
- cindí** *vi.* to leave a rest ◀ cindi ‘remain’ KCH:60  
— *n.* rest, part ◀ cindi ‘remainder, rest’ KCH:60 *pl.* **cind-én**

**cin-f-cina** *vi.* to be very small ◀ ciina 'be small' KCH:60

## D

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**da** *phrase final particle.* exactly, precisely ◀ daa 'exactly, precisely, exclusively, right (here)' KCH:64

**dá** *vi.* to be done; do be made (in material); to put (somewhere) ◀ dam (dan) 'be done; make, do; put (somewhere)' KCH:65  
 — *vt.* to make sth  
 — *n.* making

**daamá** *n.* improvement ◀ daame/a 'well being, happiness' KS:77

**daanay** *n.* seeds of cram-cram ◀ daaney 'burrgrass/cram-cram' KCH:66

**dáb** *vi.* to be covered; to be dressed (clothes)  
 — *vt.* to cover (recipient); to put (clothes) ◀ daabu 'cover, enclose; shut; look' KCH:64  
 — *n.* covering; dressing (clothes)

**danfú** *n.* cooking pot for couscous with holes in the bottom; only used in towns ◀ dōfo 'couscous or rice steamer' KCH:74 denfu KS:83

**danjé** *vi.* to be silent, to shut up ◀ dangey 'shut up, be quiet; silence' KCH:67; KS:67  
 — *vt.* to make quite, to silence

**danj-én** *npl.* charcoal ◀ denji '(hot or cold) charcoal, ember(s)' KCH:69.  
 Sg: **danjí**

**dár** *vi.* to be spread out ◀ daar 'prepare the bedding' KCH:67  
 — *vt.* to spread out ◀ daar 'spread out, lay out' KCH:67  
 — *n.* mat (cover) put on the ground to sit on *pl.* **daar-én**

**daw** *postp.* at (somebody's place); with /ten/ 'arrive' in a noun phrase ◀ doo 'at (the place of)' KCH:72

**dáy** *vt.* to deal; to cost ◀ dey 'buy' KCH:70

**dáy-kat** *vt.* to buy

**dáy-an** *vt.* to sell

**dáy-day** *n.* groceries (spices, meat) for sauce ◀ dayday 'daily groceries (spices, meat) for sauce' KCH:70

**deedí** *n.* gum arabica ◀ deeli 'gum arabic, tree resin' KCH:68 *pl.* **deed-án**

**didá** *vi.* to walk ◀ dira 'walk, go for a walk, set off on foot' KCH:72  
 — *n.* walk, departure

**dílwil** *n.* vegetal oil ◀ dílwil 'cooking oil' KCH:71 < French /de l'huile/

**diní** *vt.* to take, to catch ◀ din 'take, pick up, catch, arrest, get' KCH:71



— *n.* taking

**dingá** *n.* forgetfulness ◀ dinaa ‘forget’ KCH:71

**ding(á)-an** *vt.* to forget ◀ dinaa ‘forget’ KCH:71 dirɲa KS:87

**dis** *vt.* to let go, to leave alone; to allow to (with subjunctive clause).

◀ deesi ‘fly, fly away, soar’ KCH:69

**dudú** *vi.* to flow (water)

— *vt.* to pour (liquide) ◀ door ‘flow (out); pour (on) KCH:75 doori ‘flow; pour’ KS:91

**dumbú** *vt.* to cut, to kill an animal by cutting the jugular ◀ dumbu ‘cut, sever, cut down, cut off’ KCH:78

**dút** *vi.* to be pounded

— *vt.* to pound (general) ◀ dur ‘pound (grain, with mortar and pestle) KCH:79

## D

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**dâr** *vi.* (body part) to ache, to be painful ◀ door ‘(body part) ache, be painful’ KCH:75

— *vt.* to harm, hurt, make sore ◀ door ‘harm, hurt, make sore’ KCH:75

— *n.* sickness, epidemic, suffering *pl.* **dâar-en**

## E

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**endororó** *n.* gutter for rain water along the roof ◀ ndorro ‘roof gutter, rain pipe’ KCH:76 *pl.* **endororóo-tan.**

**enda** *conjoining NPs.* and; *instrumental prep.* with; *comitative prep.* in the company of, with; *directional prep.* towards; *clause initial particle* if/when ◀ nda ‘with; and; if’ KCH:64

## F

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**farká** *n.* donkey (general) ◀ farka ‘donkey’ KCH:84 *pl.* **farc-én**

**fás** *vi.* to be dug

— *vt.* to dig ◀ faani ‘dig’ KCH:82 fanɲi ‘dig (hole, pit)’ KS:101

Labbezanga: fansi

— *n.* digging

**fáy** *vi.* to be separated ◀ fey ‘diverge, be separate, be distinct, be of

more than one type' KCH:87

— *vt.* to separate ◀ fey 'separate, keep apart' KCH:87

**feeji** *n.* sheep (general) ◀ feeji 'sheep' KCH:85 *pl.* **feej-án**

**fendí** *n.* winnowing van ◀ fendu 'winnowing van' KCH:86 *pl.* **fend-án**

**fér** *vi.* to be opened

— *vt.* to open, to undo ◀ feeri/feri 'open, stretch out (limbs); uncover (jar)' KCH:86

**fik** *vi.* to be sown; to be buried

— *vt.* to put sth. under the earth (corps, seeds) ◀ fiji 'bury' KCH:88

— *n.* burying

**fo** *dem.* a certain, indefinite particle; another of the same kind; some (body); some (thing) ◀ a-foo 'one' KCH:20

**fóo-da** *num.* one (numeral accompanying noun) ◀ a-foo 'one' KCH:20

**fufú** *n.* cold weather ◀ fufu 'intense cold; bitter cold weather' KCH:92.

*pl.* **fuf-én**

**fumbú** *vi.* to be rotten ◀ fumbu 'rot, decay, decompose; smell rotten, foul' KCH:93

— *vt.* to make rott

**fûn** *vi.* to be pierced

— *vt.* to pierce ◀ fun 'pierce, puncture' KCH:93

— *n.* hole; piercing *pl.* **fûun-en**

**fúr** *vi.* (wind) to blow; (sun) to rise

— *vt.* to throw sth.; to throw (sth.) at sb ◀ fur 'abandon, avoid, get rid off, release, dump' KCH:94 'throw, drop, let go off' KS:116

**fur-án** *vi.* to be lost (item), to have dropped ◀ fur 'be abandoned, released, dumped' KCH:94

## G

**gá** *n.* self ◀ gaa '(living) body, organism' KCH:96 *pl.* **j-én**

**gánda** *n.* earth, ground; region, land, country ◀ ganda 'ground; land, territory, country' KCH:99 *pl.* **gánd-en**

**gangá** *vt.* to prevent from ◀ ganga 'prevent, block, hold up, delay' KCH:100

**gár** *vt.* to find, to come upon ◀ gar 'find, encounter' KCH:102

**gár** *vt.* to look after ◀ gardi 'guard, stand watch over' < Fr garder KCH:102

**garúura** *n.* green solution used to color leather items ◀ garura 'green'

(Hombori) *pl. garúura-tan*

**geení** *n.* head louse ◀ gani 'louse' KCH:100 *pl. geen-án*

**gíman** *vi.* to be good, nice, useful ◀ gomni 'good fortune (health, prosperity)' KCH:107

**giŋ-gimán** *adj.* nice, good

**gismá** *n.* roselle used in sauce and for medicine ◀ jisima 'roselle (bitter spice)' KCH:148

**gôn** *vt.* to swallow ◀ goon 'swallow' KCH:107

— *n.* swallowing *pl. gôn-en*

**gónfi** *n.* snake (general) ◀ gondi 'snake (general)' KCH:107; specimen KS:131 *pl. gónf-en*

**goorá** *vi.* to sit; to stay ◀ goro 'sit, stay, dwell' KCH:108

— *n.* sitting

**góora** *n.* cola nut; this nut is not chewed in the nomadic society.

◀ gooro 'cola nut' KCH:108 *pl. góora-tan*

**gór-gor** *vi.* to laugh, to laugh about sb ◀ gogor 'smile, laugh' KCH:106

— *n.* laughter; laughing *pl. gorgor-én*

**guná** *vt.* to see ◀ guna 'see' KCH:111

— *n.* seeing; sight ◀ guna 'view, sight' KCH:111 *pl. gun-én*

**gungú** *vt.* to guide (animal) holding, lead sb. by holding ◀ gurje 'wrestle, struggle, get into showing match' KS:138; gurje 'come to blows, get into a fight' KCH:112

**gungú** *n.* belly ◀ gungu 'belly' KCH:111 *pl. gung-én*

**gúr** *vt.* to shovel up (from ground) ◀ gur 'draw water from well'

KCH:112

**gussú** *n.* hole in the ground; borrow of animals ◀ guusu 'pit, hole

(concave excavation)' KCH:113 *pl. guss-én*

**guurú** *n.* metal ◀ guuru 'metal; metal object (bar, hoe, spear etc.)'

KCH:112 *pl. guur-én*

## H

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**haab-én** *npl.* hair; fur ◀ haabu 'cotton' KCH:113. Sg: **haabú**

**habá** *vt.* to harvest (wild grass seeds) by brooming them to heaps.

◀ haabu 'gather up (object)' KCH:113; haab-a 'to sweep (into a pile)

KS:140

**hambará** *vt.* to fear ◀ hambur 'be afraid of, fear' KCH:115

— *n.* fear ◀ hamburey 'fear' KCH:115

- hamborí** *n.* mortar; drum (made out of a mortar by spanning a skin over the opening). humbur ‘mortar’ KS:168; Cf. Tagdal [hambo'ri]; Tabarog [hambo'ri]; Tasawaq hâmbùrù *pl.* **hambor-én**
- háamu** *n.* meat; animal raised for meat ◀ ham ‘meat, flesh; fish’ KCH:115 *pl.* **háam-en**
- handí** *n.* calf ◀ handey ‘heifer’ KS::146 *pl.* **hand-én**
- hánjí** *n.* dog ◀ hâyjí ‘dog’ KCH:124 hãjí Goundam; hanjí KS:147 *pl.* **hánj-en**
- hangá** *vi.* to accompany ◀ hanga ‘run alongside, stick close to’ KCH:117; ‘follow’ KS:146  
— *vt.* to pass by
- hangá** *n.* ear ◀ haŋa ‘ear’ KCH:117; KS:145 *pl.* **hanj-én**
- hangar-én** *npl.* urine ◀ hanjeri ‘déchet de vache’ DN92
- hár** *vt.* to tell ◀ har ‘say, tell’ KCH:118
- háasi** *vt.* to look. Cf. Tagdal ['ha:ʃi]; Tabarog ['ha:ʃi]; Tasawaq háásàý, háásàý  
— *n.* look
- háv** *vi.* to be tied up (animal) ◀ haw ‘be tied’ KCH:121  
— *vt.* to tie up (animal); to tie (saddle) on (animal); to put (sandals) ◀ haw ‘tie (up), bind’ KCH:121  
— *n.* tying
- hawrú** *n.* prepared cereal meal ◀ hawru ‘supper’ KCH:122 *pl.* **hawr-én**
- hawú** *n.* cow, cattle ◀ haw ‘cow, cattle’ KCH:121 *pl.* **haw-yén**
- háy** *vi.* to give birth  
— *vt.* to give birth to; to sire ◀ hay ‘give birth to; (plant) produce (fruit, grain)’ KCH:123
- hayní** *n.* millet ◀ hayni ‘millet’ KCH:123
- hé** *n.* thing; something; somebody ◀ haya ‘thing, something’ KCH:123 *pl.* **h-én; hé-tan**
- héw** *vi.* to cry ◀ hěě ‘weep, whine’ KCH:124 Gundam: heŵ
- héw** *n.* wind ◀ hew ‘wind, air current’ KCH:125 *pl.* **heew-én**
- hijí** *n.* pestle ◀ hinje ‘pestle’ hinje-yje ‘small pestle’ KCH:127 *pl.* **hijj-én**
- hillí** *n.* horn ◀ hilli ‘horn’ KCH:126 *pl.* **hill-én**
- hímay** *vi.* to be washed  
— *vt.* to wash, to develop (photos) ◀ himey ‘take a bath; wash (e.g. hands)’ KCH:126  
— *n.* washing
- hín** *vi.* to excel in sth ◀ hin ‘be competent, master, be able to do’ KCH:126

- hiná** *vi.* to be cooked, grilled, prepared; to ripen (fruit)  
 — *vt.* to cook, to prepare (meal) ◀ hina ‘cook; be cooked’ KCH:126  
 — *n.* cooking
- hinciní** *n.* goat (general) ◀ hancin ‘goat’ KCH:117; Bamba: hincin.  
 pl. **hincin-én**
- hínjin** *vi.* to be repaired; to be winnowed  
 — *vt.* to winnow; to repair, to fix ◀ hanse ‘fix, repara; fix up (food)’  
 KS:147 Bamba: hinse
- hiṅká** *num.* two ◀ hiṅka ‘two’ KCH:127  
 — *n.* (the) two pl. **hink-én**
- hóoyay** *vi.* spend the midday hours ◀ hoy ‘spend the midday hours’  
 KCH:132
- hór** *vi.* to play; to amuse oneself ◀ hoorey ‘have fun, play’ KCH:165  
 — *n.* game (children) pl. **hoor-én**
- horrá** *vi.* to be bitter; to be hot (spice); to be hard (situation); to be  
 angry, nervous, coleric (person) ◀ hottu ‘be hotly spiced’ KCH:132;  
 KS:166 Labbezanga: hortu  
 — *vt.* to make bitter; to make spicy  
 — *n.* bitterness (taste)
- húbut** *vt.* to pull sth. heavy ◀ hibi ‘move over (for), make room (for)’  
 KS:157
- húgu** *n.* tent, house, living quarters; household, family; home,  
 marriage ◀ huu ‘house; household, family’ KCH:132; hijji ‘get married;  
 wed’ KCH:125 pl. **hij-en**
- hunú** *vt.* to leave, to depart from ◀ hun ‘leave, depart (from)’ KCH:134  
 — *n.* direction; place of departure  
**hun(u) adínit** *idiom* euphemism for ‘to die’ (Lit: ‘leave the earth’)
- hurrú** *vt.* to look for; to try ◀ wir ‘seek, try to get’ KCH:253 huri ‘seek, look  
 for’ Bourem/Ansongo KS:170  
 — *n.* trial, looking for
- húuru** *vt.* to enter in; to begin ◀ huru (hura) ‘enter (place)’ KS:170  
 — *n.* beginning; entering
- huurú** *n.* fire. Cf. Tagdal [hu:’ru]; Tabarog [hu:’ru]; Tasawaq hùrú, pl.  
**huur-én**

## I

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**-i** *pron.* them; 3p direct object clitic ◀ i ‘they, them’ KCH:134

- i-* *pron.* they; 3p subject clitic ◀ i ‘they, them’ KCH:134  
*iifi* *n.* place protected from wind ◀ iifi ‘tree, sp.’ KCH:135 *pl.* ***iifi-tan***  
*ingi* *pron.* they; them; independent 3p pronoun ◀ ingi-yo ‘they, them’  
 KCH:96; ηgey ~ ηgi ‘they, them’ KS:129  
*izace* *n.* adolescent, son of noble descendance; courageous young  
 man [< /izzay/ ‘son’ + /ceena/ ‘small’] ◀ ije-keyna ‘small child’  
 KCH:135; iza-keyna ‘small child’ KS:172 *pl.* ***izácen-an***  
*izzay* *n.* son, child, young animal, fruit (of plant) ◀ ije ‘young person,  
 child, offspring, young animal, fruit’ KCH:135 *pl.* ***izz-en***  
*tarra nn izzay* *n.* lion (Lit: ‘son of the bush’)

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 J
 

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- jáw* *vi.* to help sb ◀ gaa ‘help’ KS:118  
 — *n.* help *pl.* ***jaaw-én***  
*jeeji* *vi.* to be hanging (on side)  
 — *vt.* to hang (on side) ◀ deejj ‘hang, suspend’ KCH:68  
*ji* *n.* butter ◀ jii ‘butter, (milk) cream, grease’ KCH:144  
*jidoóda* *n.* this year [jido-da ‘this very year’] ◀ jiir ‘this year’ KCH:148  
 Bamba: jiir-oo woo ‘this year’ KS:181  
*jidoṅád* *n.* year before last year [jido-ṅaḍ ‘this year-passed’] /ṅaḍ/ is  
 of Tamasheq origin PAM:589 ◀ jiir ‘this year’ KCH:148  
*jidose* *n.* next year [jido-se ‘this year-there’] /se/ is of Tamasheq  
 origin ◀ jiir ‘this year’ KCH:148  
*jiifa* *vi.* to die without rite  
 — *n.* carcass, carrion ◀ jifa ‘carrion, unslaughtered dead animal’  
 KCH:144 < arabe *pl.* ***jiifa-tan***  
*jinji* *n.* neck ◀ jinde ‘neck’ KCH:145 *pl.* ***jinj-én***  
*jinjiná* *adv.* before; first ◀ jina ‘first (before anything else); at first’ KCH:145  
*jinjiri* *vi.* (person) to pray; to feast ◀ jingar ‘(person) pray, perform (prayer)’  
 KCH:146  
 — *n.* prayer; religious holiday ◀ jingar ‘prayer; religious (muslim)  
 holiday’ KCH:146 *pl.* ***jinjir-én***

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 K
 

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- ka* *postp.* to, from, in; among ◀ kuna compound postp. ‘inside X, in the

interior of X' KS:220

**kambá** *n.* hand, arm ◀ kamba 'hand; arm' KCH:155 *pl.* **kamb-én**  
— *postp.* towards

**kán** *vi.* to be sweet, to be good ◀ kaan 'be sweet, delicious; be good, pleasing' KCH:157  
— *vt.* to sweeten

**kánj** *vi.* to fall; (money) to be devaluated ◀ kanj 'fall' KS:191

**kánkam** *vt.* to suckle ◀ kanjam 'suckle' KCH:158

**kár** *vi.* (rain) to fall  
— *vt.* to hit, strike; to play (instrument); to play (football); to twine (rope); to carve (wooden spoon); to warn (from a danger) ◀ kar 'hit, strike, beat, tap, knock, thresh' KCH:159

**kár mammaní** *idiom* to smell (odor) ◀ mani 'to smell' KCH:190

**karfú** *n.* rope (general) ◀ korfo 'rope, string; wire' KCH:171 karfu 'rope; bundle (of rice)' KS:196 *pl.* **karf-én**

**gánda η karfú** *n.* grass snake, sp

**karjí** *n.* thorn ◀ karji 'thorn' KCH:160 *pl.* **karj-én**

**káw** *vi.* to be taken out/away  
— *vt.* to take out/away ◀ kow 'remove, take out, take off; get rid off' KCH:173

**káy** *vi.* to be upright, to stop ◀ key 'stop, halt, cease; stand, stand up' KCH:163

— *n.* being upright

**máy káy** *idiom* to be tall

**káy he ka** *idiom* to trample on sth

**káy he be** *idiom* to withhold sth

**káy béena** *idiom* to stand up

**káy-kay** *vi.* to stroll ◀ key 'stop, halt; stand' KCH:163

**keedí** *vt.* to be on sth ◀ kaar 'mount on (animal)' KCH:159

— *n.* riding

**keení** *vi.* to be laid down; to sleep ◀ kani 'lay down, go to sleep, spend the night' KCH:157

— *n.* sleep

**keení η guná** *n.* dream

**kóoray** *vi.* to be white ◀ korey 'be white' KCH:170

— *n.* white (color)

— *adj.* white

**kor-ó-koray** *vi.* to be very white ◀ korey 'be white' KCH:170

**korrá** *vi.* to be hot ◀ koron 'be hot' KCH:171

- *vt.* to heat (up), to make hot
- *n.* heat ◀ koron 'heat' KCH:171

**kós** *vi.* to be cut

- *vt.* to cut ◀ kosu 'trim (bush); pluck out feathers of' KCH:173
- *n.* cut, cutting

**kóy** *vt.* to leave for; to go to ◀ koy 'go, go away' KCH:173

**kóy-kat** *vi.* to come

**kóy** *n.* master, owner ◀ koy 'owner, master' KCH:173 *pl.* **kó-n**

**kud-én** *npl.* blood ◀ kuri 'blood' KCH:179

**kúd** *vi.* to be lead to pasture

- *vt.* to lead (herd) to pasture; to tend (flock) ◀ kur '(animals) go to pasture; tend, herd (animals) KCH:179; KS:221
- *n.* leading to pasture

**kukú** *vi.* to be long (stick/rod), deep (well), tall (person) ◀ kuu 'be long or tall' KCH:174 Niafunké: kuku

- *vt.* to make deep
- *n.* length

**kuná** *vt.* to find, to get; to have (thirst); ◀ kumna 'gather up, pick up (e.g. firewood)' KCH:177; kuuna KS:219

- *n.* finding *pl.* **kun-én**

**hé η kuna** *n.* sickness

**he (a)kuna bora** *idiom* to be sick (person)

**kungú** *vi.* to have well eaten ◀ kungu 'be sated, be full (after meal)' KCH:178

**kurú-kuru** *vi.* to be burned (meal)

- *vt.* to burn sb ◀ kukur 'burn' KCH:175

**kussú** *n.* jar; pot ◀ kusu 'baking dish (earthenware or modern)' KCH:180

*pl.* **kuss-én**

**kuurú** *n.* skin; hide, leather ◀ kuuru 'skin; pelt, hide, leather' KCH:179 *pl.*

**kuur-én**

**kwondí** *n.* ant ◀ nkondo 'large black ant' KCH:169 *pl.* **kwond-én**

## L

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**laytór** *n.* medical doctor; health agent ◀ lokotor, 'agent de santé'

< French *pl.* **laytor-én**

**langáy** *n.* salt sown in a mat ◀ ?

**lés** *vi.* to be (religiously) impure; to be dirty (from excrements) ◀ leesi



- 'dung' KCH:185  
 — *vt.* to make dirty  
 — *n.* dirt from excrements

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 L
 

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- laabú** *n.* loam, clay ◀ laabu 'earth, soil, dirt; mud-gravel mix for bricks'  
 KCH:181 *pl.* **laab-en**

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 M
 

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- maaná** *interrogative adv.* where; used for an item in close vicinity.  
 ◀ man 'where?' KCH:189
- maaní** *n.* fat on meat ◀ maani 'fat (in meat)' KCH:190
- mammaní** *n.* smell, perfume ◀ mani 'to smell' KCH:190
- mán** *vi.* to be near ◀ maan 'be or come near, approach' KCH:190  
 — *vt.* to approach
- mân** *n.* name ◀ maa 'name, designation; reputation, fame' KCH:188 *pl.*  
**máan-en**
- maatíga** *n.* peanuts ◀ maatige '(common) peanut' KCH:192 ◀ bambara
- máy** *vt.* to have, to own ◀ mey 'have, own' KCH:195
- miya** *n.* mouth, peak, muzzle; opening; end, side; measurement of  
 something e.g. a glass ◀ mee 'mouth; entrance, edge' KCH:193 *pl.*  
**miy-en**
- miyá kukú** *n.* mosquito *pl.* **miyá kuk-én**
- mó** *vi.* to hear (noise) ◀ mom 'hear' KCH:198  
 — *vt.* to have news about s.th
- mó** *n.* eye; face ◀ moo 'eye, pair of eyes' KCH:196 *pl.* **mó-n**  
**mó ka** *noun phrase.* before sb.  
**dá mó** *idiom* to be blind on one eye
- mór** *vi.* to be far away ◀ moor 'be or go far, go deep, be distant' KCH:198  
 — *vt.* to distance from
- mún** *vi.* to be thrown out  
 — *vt.* to throw out ◀ mun 'spill, dump, pour' KCH:200; KS:249  
 — *n.* pouring *pl.* **muun-én**
- musáy** *vi.* to be soft  
 — *vt.* to soften sth. by hitting on it ◀ musey 'rub, massage; tan (hide)'  
 KCH:201

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 N
 

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- ná** *vt.* to give ◀ noo 'give; gift' KCH:205  
— *n.* giving
- naaná** *n.* mother, sister of mother; maternal ancestor ◀ naa 'mother, mother's sister' KCH:206; KS:258 *pl.* **naan-én**
- nana béeri** *n.* grand mother ◀ naa-beeri 'mother's younger sister' KCH:259
- naná fumbú** *n.* stepmother ◀ naa-fumb-o 'co-wife of one's mother; stepmother' KCH:207; KS:259
- ne** *n.* location; very low nominal property, in combination with demonstratives and question 'what location'; where, in combination with a relative clause. ◀ nee 'here' KCH:204  
— *adv.* here; rarely used form to indicate location
- néeda** *n.* here; also used in postpositional phrase [< /ne/ 'place' + /da/ 'exactly'] ◀ nee daa 'right here' KCH:204
- ni- ~ ən-** *pron.* you; 2s subject clitic ◀ ni 'you' KCH:204
- nín** *vt.* to drink ◀ nin 'drink' KCH:208
- nín** *pron.* you, independent 2s pronoun ◀ ni 'you' KCH:204
- nuun-én** *npl.* smoke; vapor, steam; cloud ◀ nuune 'fire; brand (on animal)' KCH:206; KS:258

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 N
 

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- nam** *vt.* to bite; (insect) sting ◀ nam 'bite (teeth), (insect) sting, bite' KCH:202
- nas** *vi.* to be fat; opposite of skinny ◀ naasu '(livestock) be plump, well fed, fattened' KCH: 204  
— *vt.* to make fat

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 ŋ
 

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- ŋá** *vt.* to eat; (animal) to bite; to use (money) fraudulently; to cost ◀ ŋaa 'eat; spend (money); ' KCH:202  
— *n.* eating

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 O
 

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**óoda** *dem.* this, cataphoric in texts ◀ woo 'this, that' KCH:254 + da 'exactly' KCH:64

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 Q
 

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**qóq** *vi.* to be dry ◀ koo '(wet object) become dry; (water) dry up, evaporate' KCH:164; koog-o 'dry, brittle' KCH:166

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 S
 

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**salánga** *n.* toilet and shower place ◀ salanga 'toilet, septic tank' KCH:213  
*pl.* **salanga-tan**

**sáawa** *vi.* to resemble ◀ sawa 'be equal' KCH:216 < Arabic

**se** (*dative*) *postp.* for, to ◀ se 'for, to' KCH:216

**sóoro** *n.* upper floor of a building ◀ sooro 'upper floor of house (roof terrace)' KCH:244 < perhaps Hausa 'soro' *pl.* **sóoro-tan**

**surgóy** *n.* woman ◀ soog-a 'young adult' KS:281 *pl.* **surgó-(e)n**

**zaw surgóy** *idiom* to get married

**surgóy may aníyat** *idiom* pregnant woman

**suubú** *n.* hay; grass dried on the root ◀ subu 'grass, straw, herb' KCH:226 *pl.* **suub-én**

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**şót** *vi.* to fly (bird)

— *vt.* to jump over ◀ sar 'jump, hop, dance' KCH:214

— *n.* jump

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 J
 

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**jaakú** *n.* bag (for cereal) ◀ caaku 'large sack (for grain)' KCH:55 perhaps < French 'sac' *pl.* **jaakúu-tan**

## T

- taafá** *n.* liver ◀ tasa 'liver' KCH:235 KS:298
- tabá** *vt.* to taste sth ◀ taba 'taste' KCH:229  
— *n.* taste ◀ taba 'taste' KCH:229
- taymú** *n.* sandal ◀ taam 'pair of shoes' KCH:232 Goundam, Niafouké:  
taamu *pl.* **taym-én**
- tangá** *vt.* to make (animal) go forward ◀ tanj 'push' (Hombori)
- tárra** *n.* bush; longing; loneliness. ◀ terey 'outside' KCH:238; tarey 'area outside' KS:297; Cf. Tagdal [tarra]; Tasawaq táará
- tínj** *vi.* to be heavy (most eastern dialect) ◀ tin 'be heavy' KCH:240 tinj 'be heavy' KS:304
- tên** *vi.* to arrive ◀ tenje 'go towards, head for' KCH:237  
— *n.* arrival *pl.* **téen-en**
- tú** *n.* large (wooden) eating bowl ◀ tuu '(wooden) eating bowl' KCH:244  
*pl.* **tuw-yén**
- tudú** *vi.* to respond to a call by giving an audible noise ◀ tuuru 'answer, give a reply, respond (to a summons)' KCH:247
- tugúdu** *n.* ◀ tuuri 'tree, wood' KCH:246 *pl.* **tugúd-en**
- túk** *vt.* to hide ◀ tugu 'hide; conceal' KCH:245  
— *n.* hiding
- tunú** *vi.* to get up ◀ tun 'get up, arise' KCH:246  
— *n.* getting up
- tungú** *n.* kind of turban ◀ tunju 'veil' KCH:246 *pl.* **tung-én**
- tús** *vi.* to be erased, to be wiped out  
— *vt.* to wipe out, to erase ◀ tuusu 'erase, wipe ' KCH:247; KS:312  
— *n.* wiping out

## T

- taaba** *n.* tobacco ◀ taaba ~ taabaa 'tobacco' KCH:229 *pl.* **taab-en**
- taabáy** *n.* turban ◀ tabey 'turban' KCH:230 *pl.* **taab-én**
- taamú** *n.* (former) slave, male of sub-saharan origin with nomadic culture ◀ tam 'slave, subject' KCH:232 *pl.* **taam-én**
- taatab** *vt.* sew ◀ taa (derbe) 'sew (clothing)' KCH:229+69 daabu 'cover, dress' KCH:64  
— *n.* sewing

- ṭáace** *n.* (former) slave girl [ṭaa(m) + cee(ná)?] ◀ tam 'slave, subject'  
KCH:232 *pl.* **ṭáacen-án**
- ṭámce** *n.* (former) slave boy [ṭaamu + cee(ná)?] ◀ tam 'slave, subject'  
KCH:232 *pl.* **ṭámcen-án**
- ṭáw** *vi.* (time of day, date, season) to have arrived  
— *vt.* to arrive (at destination), to reach, to attain ◀ too 'arrive (at destination), reach, attain; be equal to, be worth; (time of day, date, season) arrive; be enough for' KCH:241
- ṭáwway** *n.* (former) female slave [ṭaa(m) + way?] ◀ tam 'slave, subject'  
KCH:232 *pl.* **ṭáww-an**
- ṭay** *vi.* to be wet; to be green (grass) ◀ tey 'get wet' KCH:238  
— *vt.* to make wet  
— *n.* wetness
- ṭón** *vi.* to be full ◀ ton 'be full; fill; fullness' KCH:242  
— *vt.* to fill  
— *n.* filling *pl.* **ṭon-én**
- ṭóndi** *n.* stone, rock, stony elevation; battery ◀ tondi 'rock, stone'  
KCH:242 *pl.* **ṭónd-en**

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## W

- wá** *vi.* to be healed  
— *vt.* to heal ◀ wow '(wound) heal' KCH:254
- wa ~ ba** *particle.* 2p imperative preceding verb; prohibitive preceding all pronoun clitics ◀ wo '2p imperative, directly preceding verb'  
KCH:254
- wáni** *postp.* of ◀ wane 'possessive postposition' KS:316 *pl.* **wán-en**
- wánjin** *vt.* to refuse ◀ wangu 'refuse, say no' KCH:250
- wâw** *vt.* to insult ◀ wow 'insult' KCH:254  
— *n.* insult *pl.* **wâaw-en**
- wáy** *n.* woman, female ◀ woy 'woman, female' KCH:254 *pl.* **waay-én**
- wayní** *n.* sun ◀ woyné 'sun' KCH:256
- wí** *vt.* to kill; to extinguish (fire, light), to turn off (radio/TV) ◀ wii 'kill; extinguish (fire, light)' KCH:253  
— *n.* killing

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 Y
 

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- yáw** *n.* female camel of all ages ◀ yoo ‘camel’ KCH:262 *pl.* **yaaw-én**
- yáy** *vi.* to be cool; to be calm ◀ yey ‘be cold, cool; be calm’ KCH:261  
 — *vt.* to make cool  
 — *n.* coolness *pl.* **yaay-én**
- yéd** *vi.* to return ◀ yee ‘return, go back’ KCH:260
- yén** *vi.* to be rubbed in with butter/oil  
 — *vt.* to rub in with butter/oil ◀ yoon ‘rub (ointment) on or in, anoint; anointment’ KCH:263
- yéeri** *vi.* to vomit ◀ yeer ‘vomit’ KCH:261; yeeri KS:239  
 — *n.* vomiting *pl.* **yeer-án**

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 Z
 

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- zayrí** *n.* day; daytime ◀ jaari ‘day, daytime’ KCH:139; zaari KS:336.  
*pl.* **zayr-én**
- zaróoda** *n.* today ◀ zaar-oo da (Bamba) ‘today’ KS:336
- záw** *vt.* to take; to take (wife), to marry; ◀ jow ‘take, take possession of; take (a wife), marry’ KCH:150; zaa KS:332
- záy** *vt.* to steal ◀ jey ‘steal, rob’ KCH:144  
 — *n.* theft
- záy** *vi.* to swear ◀ jee ‘swear, take an oath’ KCH:140  
 — *n.* swearword *pl.* **zay-én**
- zumbú** *vi.* to go down; to land (bird); to stay with; to settle for a certain time ◀ jumbu ‘descend, go or come down; (bird) land, alight’ KCH:151  
 zumbu KS:343
- zurú** *vi.* to run ◀ jur (juru) ‘run, move fast, speed, race, flee; (liquid) flow’ KCH:151 zuru KS:344  
 — *n.* running

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 3
 

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- zeemí** *n.* blacksmith, craftsman ◀ jam ‘jeweler (gold- and silversmith); blacksmith’ KCH:137 *pl.* **zeem-án**
- zén** *vi.* to be old ◀ jeen ‘be or get old, ancient’ KCH:141  
 — *vt.* to make old

**ʒf** *vt.* to kick ◀ *jii* 'push' KCH:144 *zii* KS:338 DN92 'donner un coup de pied'  
— *n.* kick

**ʒibi** *n.* dirt ◀ *jiibi* 'filth, garbage' KCH:144 *pl.* **ʒiib-én; ʒiibi-tan**

**ʒibit** *vi.* to be dirty ◀ *jiibi* 'filth, garbage' KCH:144

## Morpheme Index

The following list gives affixes, other grammatical morphemes, determiners and a few stems with their labels or meanings. In the alphabetical order vowel length is ignored, the velar fricative *ɣ* follows *g*, and schwa follows *e*. *ʃ* and *ʒ* follow the non-palatalized sibilant respectively.

<b>morpheme</b>	<b>gloss/label with paragraph</b>
<i>a-</i>	3s subject clitic 3.1.4.1; 3.2.6.2
<i>aa-</i>	3s indirect object clitic 3.2.6.3
<i>a-</i>	number (singular) prefix 3.2.1
<i>-a</i>	3s direct object clitic 3.1.4.3; 3.2.6.2
<i>adí</i>	anaphoric demonstrative 4.1.3.4
<i>agar</i>	'bad' in compound like expressions with nouns 3.2.5
<i>aɣ(a)-</i>	1s subject clitic 3.1.4.1; 3.2.6.2
<i>aɣáy</i>	1s direct/indirect object pronoun 3.2.6.2; 3.2.6.3 independent 1s pronoun 3.2.6.2
<i>ayo / ayondo</i>	determiner 4.1.4
<i>ak</i>	question particle 4.7.3.1
<i>-an</i>	plural suffix (Tamasheq cognates) 3.2.3.1.4 plural suffix (Songhay cognates) allomorph 3.2.3.1.1
<i>-an</i>	adjectivizer suffix 3.2.8.2
<i>-an</i>	'towards there' allative suffix on verb 3.1.3.6
<i>ana</i>	2s.DAT 3.2.7.11.2.1.1
<i>andə-</i>	2p subject clitic 3.1.4.1; 3.2.6.2
<i>ándi</i>	2p direct/indirect object pronoun 3.2.6.2 independent 2p pronoun 3.2.6.2
<i>anga</i>	3s independent pronoun 3.2.6.2
<i>ar(ə)-</i>	1p subject clitic 3.1.4.1; 3.2.6.2
<i>áari</i>	1p direct/indirect object pronoun 3.2.6.2



	independent 1p pronoun 3.2.6.2
<i>(a)senda</i>	'there' deictic distant 3.1.5.2 'that' demonstrative 4.1.3.1
<i>ay=</i>	allomorph of <i>a=</i> 3.2.6.4
<i>ayda</i>	'this' deictic close to addressee 4.1.3.3 'this' demonstrative 4.1.3.3; 4.1.4.1
<i>b-/bə-/f-</i>	imperfective prefix 3.1.4.2; 4.2.1
<i>ba ~ wa</i>	2p imperative particle 4.2.5 with 1p imperative 4.2.5.2 in negation of imperatives 4.2.5.3
<i>báara</i>	'is' existence/availability 4.4.1 'be somewhere' 4.4.4
<i>be</i>	'on', 'about' locative postposition 3.2.7.3
<i>bor(a) a=ffĩ</i>	'nobody' 4.6.6.1; in relative clause 4.5.2.1
<i>da</i>	'right, exactly' intensifying discourse particle 4.7.4.3
<i>daw</i>	'at somebody's (place)' locative postposition 3.2.7.4
<i>-en</i>	plural suffix (Songhay cognates) 3.2.3.1.1
<i>-en/-ən</i>	plural suffix (Tamasheq cognates) allomorph 3.2.3.2.1
<i>ənda</i>	'with' instrumental preposition 3.2.7.8 'with' combined with pronouns 3.2.7.11.2.2 'with' comitative 4.3.6 'in the direction of' locative 3.2.7.8 'and' conjoining NPs 4.1.9.1 'when' conditional 4.8.3.1
<i>ənd-ayɔ</i>	determiner (pl) dialectal variant 4.1.4
<i>ənd-anga</i>	'when/if' conditional marker 4.8.3.1
<i>əndár</i>	'if' hypothetical condition 4.8.3.3
<i>fo</i>	'a certain' indefinite marker 3.2.9.1
<i>h(e) a=ffĩ</i>	'nothing' 4.6.6.1; in relative clause 4.5.2.1
<i>hak</i>	'each' dialectal variant 4.1.6
<i>har</i>	'until' before verb 4.8.4.5 'except' following negation 4.6.3

<i>hínjin</i>	'be/do very much' intensifier verb 4.3.3.1
<i>ho</i>	'this' (replacing actions) 4.1.3.5 'what' introducing relative clause 4.5.2.2
<i>i-</i>	number (plural) prefix 3.2.3.2
<i>-i/-u</i>	adjectivizer suffix 3.2.8.1
<i>i=</i>	3p subject clitic 3.1.4.1; 3.2.6.2 3p indirect object clitic 3.2.6.3
<i>=i</i>	3p direct object clitic 3.2.6.2
<i>id-</i>	plural prefix 3.2.3.1.3
<i>igan</i>	question particle 4.7.3.1
<i>-in</i>	plural suffix (Tamasheq cognates) allomorph 3.2.3.3
<i>ínzin</i>	'like' comparison 3.2.7.10; 4.7.4.6
<i>ínji</i>	3p independent pronoun 3.2.6.2
<i>íttilla</i>	'each' in NP syntax 4.1.6
<i>ka</i>	'to', 'in', 'from', 'among' locative postposition 3.2.7.2
<i>káaka</i>	'whatever' 4.1.6
<i>káamil</i>	'all' in NP syntax 4.1.6
<i>kar ~ kahar</i> <i>~ kabahar</i>	'if' part of conditional marker 4.8.3.2
<i>-kat</i>	'towards here' ventive suffix on verbs 3.1.3.6
<i>kəlá</i>	'never' with negation on verb 4.6.1. 'once' preverbal 4.6.1.
<i>-koy</i>	'owner' minor compound suffix 3.2.5
<i>kud</i>	'if' after verbs of cognition 4.3.10.4
<i>kullú</i>	'each' 4.1.6
<i>m-</i>	subjunctive prefix 3.1.4.2; 4.2.2
<i>m(ə)-/n(ə)-</i>	middle/reciprocal prefix 3.1.3.3.2
<i>ma-/na-</i>	actor nominalizer prefix 3.2.4.2
<i>man</i>	'which' 4.7.3.3; 4.7.3.3.5-7

<i>maana</i>	'where' 4.7.3.3.4
<i>n</i>	'(N)'s' genitive postposition 3.2.7.6 in possessive pronoun 3.2.6.4
<i>n</i>	pronoun separator 3.2.7.11.2
<i>na</i>	'over there' demonstrative 4.1.3.6
<i>na</i>	'be' copula in interrogative 4.7.4.3.1
<i>na-</i>	actor nominalizer prefix (allomorph) 3.2.4.2
<i>nanga</i>	'when/if' conditional marker 4.8.3.1
<i>(ə)n-</i>	2s subject clitic (allomorph) 3.1.4.1
<i>n(ə)-</i>	middle/reciprocal prefix (allomorph) 3.1.3.3.2
<i>ne</i>	'here' availability 4.4.2 'there (where)' introducing relative clause 4.5.2.2
<i>needa</i>	'here' deictic closeness 3.1.5.2
<i>nə-</i>	perfective negation prefix 3.1.4.2; 4.2.4
<i>nə-/ən-</i>	subject focus prefix 4.7.2.1
<i>nə-/ən-</i>	extraction marker in subject relative clauses 4.5.1.1
<i>ni-</i>	2s subject clitic 3.1.4.1
<i>nín</i>	2s direct/indirect object pronoun 3.2.6.2 independent 2s pronoun 3.2.6.2
<i>no</i>	'there' low stress demonstrative 4.4.2.2; 4.5.1
<i>o</i>	'this' demonstrative with broad reference 4.1.3.5
<i>ooda</i>	'this' demonstrative 4.1.3.2
<i>s(ə)- /ʃ(ə)- z(ə)- /ʒ(ə)-</i>	causative prefixes 3.1.3.2
<i>sa</i>	complementizer for complement clauses 4.3.10.3 'that' in relative clause 4.5.4 topic marker in non-verbal clauses 4.7.1.1 'when' simultaneity 4.8.4.1
<i>se</i>	dative postposition 3.2.7.1
<i>sə-</i>	non-perfective negation prefix 3.1.4.2; 4.2.4

<i>s(ə)-</i>	instrument nominalizer prefix 3.2.4.3.1
<i>əs- ~ əmməs-</i>	'maybe' part of conditional marker 4.8.3.2
<i>sínnihil</i>	'be/do very much' intensifier verb 4.3.3.2
<i>ʃ(ə)-</i>	causative prefix (allomorph) 3.1.3.2
<i>ʃeddí ~ ceddí</i>	'yet' preverbal 4.8.4.7 'not yet' with negation on verb 4.6.5
<i>-ʃí</i>	'is not' non-existence of item 4.4.1
<i>t(ə)-</i>	passive prefix 3.1.3.4
<i>t...-t</i>	assimilation rules 3.2.2.1 feminine (gender) affixes 3.2.2.2 diminutive affixes 3.2.3.3 nominalization affixes 3.2.4.3
<i>-tan</i>	plural suffix 3.2.3.1.2; 3.2.3.2.2
<i>tə-</i>	future prefix 3.1.4.2; 4.2.3
<i>tuw- / tuwa-</i>	passive prefix 3.1.3.4
<i>-u</i>	nominalization suffix (verb class final /-ət/) 3.2.4.1.2
<i>-u/-i</i>	adjectivizer suffix 3.2.8.1
<i>wa ~ ba</i>	2p imperative particle 4.2.5 with 1p imperative 4.2.5.2 in negation of imperatives 4.2.5.3
<i>wala</i>	'without' preposition 3.2.7.9 'or' disjoining NPs 4.1.9.2 and clauses 4.8.1.2 'not even' with negation on verb 4.6.4
<i>-wan</i>	minor plural suffix (Tamasheq cognates) 3.2.3.2.5
<i>wáni</i> <i>wán-en</i>	'of' possessive postposition 3.2.6.4; 3.2.7.7 with <i>ayo</i> 4.1.4.2
<i>wərtilla</i>	'there is not' non-existence 4.4.1; 4.6.6.2
<i>wiji</i>	'is not' negation of identification 4.4.1 tag in tag question 4.7.3.2
<i>-yen/-yan</i>	minor plural suffix (Songhay cognates) 3.2.3.1.1

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$z(\emptyset)$ - causative prefix (allomorph) (3.1.3.2)

$ʒ(\emptyset)$ - causative prefix (allomorph) (3.1.3.2)

## 11. Summary

*A Grammar of Tadaksahak, a Northern Songhay Language of Mali* provides a description of the Tadaksahak language as it is spoken by the Idaksahak, who number about 30,000 in the most eastern part of Mali, around the administrative town of Menaka.

Northern Songhay is a branch of the Songhay language family that shows many features also found in unrelated Berber languages, such as Tamasheq. Traits of Tamasheq are found throughout the grammar starting with sounds, syllable structures, word formation and particularly in verb derivation. In many other aspects, Tadaksahak is clearly like most Songhay languages.

Chapter one provides information about the location of the people, details about the classification of the language, earlier studies done by other authors, some dialectal variations and some social and historical particularities of the community.

In chapter two the phonology is presented. It is shown that closed syllables are common, as well as syllables with an initial vowel and a closing consonant. Also open syllables are found. Striking are the pharyngeal consonantal phonemes as well as the whole series of pharyngealized alveolars. Basically any consonant is attested in syllable-final position and therefore consonant clusters with different consonants are common. The section on vowels presents evidence

for length contrast for five basic vowels. Only schwa occurs exclusively in a short variant. It is shown that the realization of the vowels is context dependent. In unstressed syllables they tend to be uttered in a more central position. In the section about sound rules, phenomena like assimilation of /n/, sibilant harmony, vowel contractions and cases of resyllabification are presented. The last section shows the different stress patterns for words.

The third chapter presents the morphology of the language. Several aspects of verb morphology and nominalization strategies look like straight out of a Berber grammar. It is shown that verbal derivation is traceable to Tamasheq for causative, reciprocal and middle as well as passive (which is distinctively marked). In addition, any verb root that is of Songhay origin is supplanted when derived and a semantic equivalent of Tamasheq origin takes its place. Another non-Songhay feature concerns inflection where the subject pronoun cliticizes to the verb and is always present even when there is a lexical subject.

Noun morphology is described in the second part of this chapter. It is shown that the basic structure of nouns is of two kinds, one with a number prefix, the other without. Even though some nouns are marked for gender, there is no grammatical gender agreement.

Plurals are formed with various strategies, like adding a plural suffix, or a plural prefix, or a combination thereof as well as a plural prefix in combination with alternating plural vowel patterns within the noun.

Nouns with a number prefix are mostly traceable to Tamasheq as far as they are not loans from Arabic. For nominalization it is also the origin of the term that decides which strategy is used. In addition to this, actor and instrument nominalization follow the Berber pattern, prefixing the respective morphemes. While compounding is a very productive feature in Songhay languages, it is not in Tadakshak. The pronouns are presented, as well as the postpositions and the few prepositions. A larger section is dedicated to the description of the way adjectives are formed from verbal roots. Again, there is a Songhay and a Tamasheq strategy of doing it, depending on the origin of the root. However, it is shown that the Tamasheq suffix is gaining acceptance also for Songhay roots. The chapter is closed with a presentation of the numerals.

Chapter four presents the syntax of the language. First noun phrases (NP) are covered. As many as five different demonstratives can follow a noun while one precedes it. An additional determiner can be found in any noun phrase with a different function from that of the demonstratives; numerals in NPs behave differently depending on their value, the different paradigms are presented as well as the NP syntax with other quantifying modifiers and adjectives.

The following section presents uses of the mood-aspect-negation (MAN) morphemes which are mutually exclusive, somewhat different from other Songhay languages where a negation morpheme can be



combined with a modal morpheme. Imperatives distinguish singular from plural addressees and an imperative particle marks all negative imperatives.

The next longer section shows the basic argument structure.

Tadaksahak is an SVO language, which exhibits quite a number of labile verbs used in both intransitive and transitive constructions.

Verbal noun complements are very common while there is also a class of verbs that takes two unmarked nominal complements. A subsection presents different types of clausal complements, the most widely used being one with a complementizer particle. A short section presents copular clauses together with existential, locational and possessive predications.

A larger section describes the two different strategies for relative clauses (RC). There is the restrictive RC with the head followed by the modifying clause without a resumptive pronoun for any grammatical function. A noun can be extracted from a postpositional phrase. The non-restrictive RC is formed with a *sa* linker after the modified noun phrase. *sa* is followed by a complete clause.

Possessor relativization is only possible with *sa*.

In the next section the different syntactic structures for topicalization and focalization in a simple clause are shown. Then interrogative morphemes and structures are presented as well as a number of other particles that function at clause level.

The last section deals with complex sentences such as clausal

coordination, purpose and causal clauses, conditionals and temporal subordination.

The appendixes give two texts with glosses, lists of verbs of Songhay origin with their causative and/or passive forms, an English – Tadaksahak wordlist and a wordlist containing Songhay cognates.

### **13. Curriculum vitae**

Regula Christiansen-Bolli was born in 1957 in Aarberg, Switzerland. After attending school in Buswil and Lyss, she began teacher training in Biel in 1974 and in 1977 obtained her diploma as a primary school teacher. From 1977 to 1987, she held teaching posts in primary schools in the Canton of Bern. In addition, from 1983 until 1985 she attended five semesters of theological training at the Kolding International Apostolsk Højskole in Denmark. Between 1987 and 1993, she held a number of positions in Ivory Coast, Burkina Faso and Mali as a member of SIL International. Together with her husband, Niels Christiansen, she was assigned by SIL to the Tadaksahak language programme, based in Menaka, eastern Mali, from 1993 to 2003. During this period, two sons joined their family. During the 1980s and 1990s she also took numerous SIL training courses and eventually taught various subjects at SIL training programmes in Germany and France. In 2003 she returned to Switzerland and is currently teaching at a primary school in the Canton of Bern. Alongside her teaching, she has worked from 2006 to 2009 as a part-time assistant in the NWO-funded project, “Tuareg and the Central Sahelian Languages: A History of Language Contact”, at Leiden University.

Stellingen behorende bij het proefschrift  
*A Grammar of Tadakshak, a Northern Songhay Language of Mali*  
van Regula Christiansen-Bolli

1. In Tadakshak, verbal derivations of verbs whose basic roots have a Songhay origin always show suppletion by means of a Tuareg derived form.
2. The fact that the inflected verb has obligatory person/number agreement with the subject, even when a lexical subject is present, is an innovation of Tadakshak based on Tuareg patterns.
3. In Tadakshak a small part of the lexicon is of Songhay origin. What has been shown by Robert Nicolai for nouns is also the case for verbs: The Songhay cognates provide mainly general terms for basic actions.
4. The culture-specific part of Tadakshak vocabulary is mostly of Tuareg stock.
5. Government politics to sedentarize herding nomads fail to acknowledge that over-population in areas with year-round access to water will also have over-grazing as its consequence.
6. The extremely high rate of analphabetism among the Tadakshak is not only because of lack of opportunities of formal education in their area, but also stems from their reluctance to send their children away from the family at a young age for non-religious teaching.
7. Only the thorough linguistic study of a language can give well-founded input for an accurate and stylistically differentiated translation. Without knowledge of its syntactic system and the general and specific semantics of its components, it is very hard to render a reality in another language.
8. Elicitation alone cannot give the full array of possibilities to express a certain reality. Without relating them to a larger linguistic and extra-linguistic context it may be impossible to detect certain features or to analyze their function.
9. Non-government-sponsored development of minority languages often raises fears at a national level about the political stability and coherence for the area concerned, while it instills confidence and feelings of equality amongst the people who profit from such a program.
10. The use of the second person plural pronoun for the politeness form in the Swiss German dialect spoken around Bern, instead of the third person plural found in other Swiss dialects, is due to influence from French in this western part of the Swiss dialect continuum.
11. Ineffective communication in kindergartens and first grades at school in linguistically homogeneous areas is one consequence of the new language policy in the Canton of Bern in

Switzerland. This policy makes Standard German the only language of education, starting in kindergarten. The main purpose is to avoid unequal opportunities of education among children with different linguistic backgrounds and to enforce regular oral use of this generally only read and written language. Standard German deviates considerably (phonetically, lexically and grammatically) from the local Swiss German dialect and thus is a foreign language for most young children.